## **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

**Appendices** 









[This page has intentionally been left blank.]

#### 1 INTRODUCTION

APPENDIX 1.1 EIA TEAM

APPENDIX 1.2 MOE AND LPA COMMENTS FROM SCOPING REPORT

#### **2 LEGISLATION**

No appendices

#### **3 PUBLIC PARTICIPATION**

APPENDIX 3.1 STANDARDS AND REGULATIONS

APPENDIX 3.2 STAKEHOLDER ANALYSIS

APPENDIX 3.3 NEWSPAPER ADVERTISEMENTS

APPENDIX 3.4 SAMPLE ANNOUNCEMENTS IN MUNICIPALITIES

APPENDIX 3.5 BACKGROUND INFORMATION DOCUMENT (BID)

APPENDIX 3.6 PUBLIC CONSULTATION PRESENTATION

APPENDIX 3.7 TOTAL PRESENTATION

APPENDIX 3.8 FREQUENTLY ASKED QUESTIONS (FAQ) DOCUMENT

APPENDIX 3.9 STAKEHOLDER ENGAGEMENT RECORDING TEMPLATE

APPENDIX 3.10 VISUAL RECORD OF MEETINGS

APPENDIX 3.11 ATTENDANCE LISTS

APPENDIX 3.12 DETAILED QUESTION AND RESPONSE TRAIL

APPENDIX 3.13 LETTERS OF INVITATION: STAKEHOLDER ENGAGEMENT

APPENDIX 3.14 MEETING INVITEES

APPENDIX 3.15 STAKEHOLDER ENGAGEMENT PRESENTATION

APPENDIX 3.16 POSTER FOR STAKEHOLDER ENGAGEMENT

APPENDIX 3.17 DISCLOSURE PHASE PUBLIC CONSULTATION MEETING INVITES

APPENDIX 3.18 DISCLOSURE PHASE TOTAL PRESENTATION

APPENDIX 3.19 DISCLOSURE PHASE PUBLIC CONSULTATION PRESENTATION

APPENDIX 3.20 DISCLOSURE PHASE FAQ DOCUMENT

#### **4 PROJECT DESCRIPTION**

APPENDIX 4.1 PROJECT COORDINATES

APPENDIX 4.2 PORT AUTHORITY APPROVAL FOR LOGISTICS BASE

APPENDIX 4.3 MODU TUNGSTEN EXPLORER CERTIFICATES

APPENDIX 4.4 ANTI-SCALING CHEMICAL PRODUCT INFORMATION

APPENDIX 4.5 FOMTEC FIREFIGHTING FOAM PRODUCT INFORMATION

APPENDIX 4.6 CUSTOMS AUTHORITY DECISION FOR EXPORT OF HAZARDOUS WASTE DIRECT FROM MODU

APPENDIX 4.7 IESC PERMITS AND CERTIFICATES

#### **5 DESCRIPTION OF THE SURROUNDING ENVIRONMENT**

APPENDIX 5.1 NATIONAL LEVEL DATA COLLECTION

APPENDIX 5.2 FIELD PLAN

APPENDIX 5.3 DISCUSSION GUIDES

APPENDIX 5.4 QA'S KIIS AND FGDS BLOCK 4

APPENDIX 5.5 ATTENDANCE LISTS BLOCK 4

APPENDIX 5.6 PHOTO CATALOGUE

#### **6 IMPACT ASSESSMENT**

APPENDIX 6.1 SCREENED OUT IMPACTS

APPENDIX 6.2 BONN AGREEMENT COLOUR CODE CLASSIFICATION

#### **7 ALTERNATIVES**

No appendices

#### **8 ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN**

**APPENDIX 8.1 COMMITMENTS REGISTER** 

APPENDIX 8.2 ESMP MATRIX

#### 9 CONCLUSION

No appendices

# **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 1.1 EIA Team









[This page has intentionally been left blank.]

| Chapter                            | Author/contributor    | Expertise (years of experience)                   |
|------------------------------------|-----------------------|---|
| 1 – Introduction                   | David Watson          | Project Manager (25)                              |
| 2 – Legislation                    | Sabine El Wak (Dar)   | Environmental Specialist (6)                      |
|                                    | Rebecca Heath         | International Oil and Gas EIA Expert (22)         |
|                                    | James Brocklehurst    | Marine Environment Specialist (12)                |
| 3 – Stakeholder Engagement         | Hilde Van Vlaenderen  | Social and Stakeholder Engagement Expert (25)     |
|                                    | Kate Blacklock Warren | Social and Stakeholder Engagement Specialist (15) |
|                                    | Ruth Brooker          | Social and Stakeholder Engagement Specialist (2)  |
|                                    | Francesca Bailey      | Social and Stakeholder Engagement Specialist (2)  |
|                                    | Riwa El Derbas (Dar)  | In-Country Project Manager (18)                   |
|                                    | Sima Hojaij (Dar)     | Environmental Specialist (9)                      |
|                                    | Kanj Hamade (Dar)     | Stakeholder Engagement Specialist (12)            |
| 4 – Project Description            | Rebecca Heath         | International Oil and Gas EIA Expert (22)         |
| 5 – Description of the Surrounding | Jody Edmunds          | International Oil and Gas EIA Expert (15)         |
| Environment                        | Andrew Bendell        | Marine Physical Environment Specialist (16)       |
|                                    | James Brocklehurst    | Marine Environment Specialist (12)                |
|                                    | Ellie Cooper          | Marine Environment Specialist (2)                 |
|                                    | Riwa El Derbas (Dar)  | In-Country Project Manager (18)                   |
|                                    | Sima Hojaij (Dar)     | Environmental Specialist (9)                      |
|                                    | Mia Nasr (Dar)        | Environmental Specialist (6)                      |
|                                    | Chadi El Chahal (Dar) | Environmental Specialist (7)                      |
|                                    |                       |   |

| Chapter               | Author/contributor   | Expertise (years of experience)   |
|-----------------------|----------------------|---|
|                       | Nour Sardouk (Dar)   | Environmental Specialist (3)  |
|                       | Sabine El Wak (Dar)  | Environmental Specialist (6)  |
|                       | Philip Nassar (Dar)  | Geologist (26)  |
|                       | Omina Kabbani (Dar)  | Marine Specialist (14)  |
|                       | Michel Bariche (Dar) | Marine Biologist (16)   |
|                       | Hilde Van Vlaenderen | Social and Stakeholder Engagement Expert (25)   |
|                       | Ruth Brooker         | Social and Stakeholder Engagement Specialist (2)  |
|                       | Corrine Kennedy      | Social and Stakeholder Engagement Expert (20)   |
|                       | Zhanar Zhakeyeva     | Social and Stakeholder Engagement Specialist (11)   |
|                       | Tim O'Donnell        | GIS Specialist (18)   |
|                       | Anthony Jones        | GIS Specialist (8)  |
|                       | Florence Taylor      | Graduate Marine Environmental Specialist (1)  |
| 6 - Impact Assessment | Jody Edmunds         | International Oil and Gas EIA Expert (15)   |
|                       | Rebecca Heath        | International Oil and Gas EIA Expert (22)   |
|                       | Zhanar Zhakeyeva     | Social Impact Assessment Expert (11)  |
|                       | Corrine Kennedy      | Social and Stakeholder Engagement Expert (20)   |
|                       | James Brocklehurst   | Marine Environment Specialist (12)  |
|                       | Simon lent (Xodus)   | Noise Modelling (34)  |
|                       |                      | Oil spill and cuttings modelling studies were performed by Total and provided to the RSK team for inclusion |
| 7 – Alternatives      | Rebecca Heath        | International Oil and Gas EIA Expert (22)   |

| Chapter                           | Author/contributor | Expertise (years of experience)           |
|-----------------------------------|--------------------|---|
| 8 - Environmental Management Plan | Rebecca Heath      | International Oil and Gas EIA Expert (22) |
|                                   | Tim Bremner        | International Oil and Gas EIA Expert (21) |
| 9 – Conclusions                   | David Watson       | Project Manager (25)                      |





[This page has intentionally been left blank.]

## **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 1.2 MOE and LPA Comments from Scoping Report





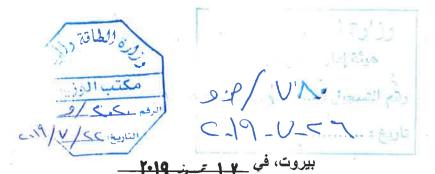




[This page has intentionally been left blank.]

elially dellall in 199 and for the following of the contract o

| للا لملاء وا فذ العلم                    | Ð  | ISTRIBUTION                 |
|--|--|-----------------------------|
|  | EA H   | Strategic Planning Unit     |
| والمتابعة مي فيل و حرة                   |  | Technical & Enqueering Unit |
| · Soles CHSE                             |  | Genlogy & Couplby sess that |
|  |  | Legal Unil                  |
| 1450                                     |  | Economic 7. Linance Unit    |
| 7 11 3                                   | 0  | OHSE Unit                   |
| Le che con le che cape                   | The state of the s | 26-7-201                    |
| 12 x 3 x 3 x 3 x 3 x 3 x 3 x 3 x 3 x 3 x | *  |                             |
| الرئيس ع                                 | (3) J  |                             |
| المطاقة فالمساقة فالمساقة                | 1  |                             |





الوزير

قم التسجيل: ٣٠٨ ٤/ب٢٠١٨

Jul elbe Elsano

جانب وزيرة الطاقة والمياه السيدة ندى بستاني المحترمة

وزير المحافة والمياه

الموضوع البيموقف وزارة البيئة من تقرير تحديد نطاق تقييم الأثر البيئي العائد لمشروع إستكشاف النفط والغاز في الرفعة ٤ في المياه البحرية اللبنانية

المرجع: - القانون رقم ٤٤٤ تاريخ ٢٠٠٢/٧/٢٩ (حماية البيئة)

- القانون رقم ٦٩٠ تاريخ ٢٠٠٥/٨/٢٦ (تحديد مهام وزارة البيئة وتنظيمها)

- المرسوم رفع ٢٢٧٥ تاريخ ٢٠٢٥، ٢٠ (تنظيم الوحدات التابعة لوزارة البيئة وتحديد مهامها وملاكها وشروط التعيين الخاصة في بعض وظائفها)

- المرسوم رقم ٨٦٣٣ تاريخ ٢٠١٢/٨/٧ (أصول تقييم الأثر البيئي)

- قرار وزير البيئة رقم ١/٢٦٦ تاريخ٢٠١٥/٦/١٢ (آلية مراجعة تقارير تحديد نطاق تقييم الأثر البيئي) البيئي وتقارير تقييم الاثر البيئي)

- قرار وزير البيئة رقم ١/٧٠ تاريخ ٢٠١٩/٢/٢٦ (تأليف لجنة تقنية لمتابعة تحضير قواعد ارشادية لدراسات تقييم الأثر البيئي، ومراجعة الدراسات البيئية لمشاريع التنقيب عن النفط والغاز في المياه البحرية اللبنانية

- تقرير تحديد نطاق تقييم الأثر البيني العائد لمشروع إستكشاف النفط والغاز في الرقعة ٤ في المياه البحرية اللبنانية، المسجل في وزارة البيئة تحت الرقم ٢٠١٨/٠/١ تاريخ ٢٠١٩/٧/٣

تحية طبّية،

بالإشارة الى الموضوع والمراجع المبيّنة أعلاه،

وإستناداً إلى تقرير اللجنة التقنية المكلفة بموجب قرار الوزير المبيّن أعلاه (مرفق ربطاً)،

وبعد مراجعة تقرير تحديد نطاق تقييم الأثر البيئي المذكور أعلاه، وبالرغم من أنه لا يستوفي كافة المعلومات والمعطيات لدراسة تحديد نطاق تقييم الأثر البيئي، ولكن حرصا على المصلحة العامة،

ترى وزارة البيئة إمكانية السير بإعداد دراسة تقييم الأثر البيئي شرط معالجة وإستكمال النقاط الواردة في تقرير اللجنة التقنية المرفق ربطاً وتوضيحها في تقرير تقييم الأثر البيئي كما والإلتزام بالتالي:

- كافة تفاصيل القواعد الإرشادية لدراسة تقييم الأثر البيئي لعمليات استطلاع وإستكشاف النفط والغاز في المياه البحرية اللبنانية (المسودة تاريخ تموز ٢٠١٩) المرفقة ربطاً،



الوزير

تحديث خطة مشاركة أصحاب المصلحة (Stakeholder Engagement Plan) المخصصة لمرحلة در اسة تقييم الأثر البيني وتقديمها الى وزارة البيئة بالسرعة الممكنة لمراجعتها وإبداء الرأي فيها،

. تقديم تقرير تقييم الأثر البيئي حاملاً شعار الشركة الاستشارية اللبنانية المعتمدة من ضمن اللائحة بالشركات

المخولة إجراء دراسات تقييم الأثر البيئي وليس فقط الشركة الاستشارية الأجنبية، تقديم التقرير على خمس نسخ ورقية وخمس نسخ الكترونية الى وزارة البيئة بحسب الأصول المرعية الإجراء

كما وتفيد وزارة البيئة أن دفتر شروط تقرير تقييم الأثر البيئي المرفق بتقرير تحديد نطاق تقييم الأثر البيئي العائد للمشروع المذكور أعلاه (Chapter 7: Terms of Reference for the EIA) يعتبر مقبولاً حصراً في حال مراعاة كافة الملاحظات المذكورة في تقرير اللجنة التقنية المرفق ربطاً وتفاصيل القواعد الإرشادية المذكورة في البند الأول أعلاه،

ونظراً لضيق الوقت في البدء بالأعمال الاستكشافية في الرقعة رقم ٤ وحرصاً على حسن سير العمل، تضع وزارة البيئة خبرائها وفريق عملها ممثلة باللجنة التقنية بتصرف وزارة الطاقة والمياه وذلك لتوضيح كافة الملاحظات الواردة في التقرير التقني ومتابعة تنفيذها خلال عملية تحضير تقرير تقييم الأثر البيئي.

وتفضلوا بقبول فائق الاحترام.



مرفق ربطاً:

- نُسخة عن كتاب وزارة الطاقة والمياه رقم ١٧٧٧ و تاريخ ٢٠١٩/٧/١

ـ تقرير اللَّجنة التَّقنية ٤٣٠٨/ب تاريخ ٢٠١٩/٧/١٦

ـ القواعد الإرشادية لدراسة تقييم الأثر البيني لعمليات استطلاع وإستكشاف النفط والغاز في المياه البحرية اللبنانية (المسودة تاريخ تموز ٢٠١٩)

نسخة تبلغ الى:

- هيئة إدارة قطاع البترول

- وزارة البينة؛ مصلحة تكنولوجيا البيئة، مصلحة البيئة السكنية، مصلحة الموارد الطبيعية، مصلحة الدوائر الاقليمية والصابطة البيئية، أعضاء اللجنة التقنية

Ref. Number: 4308/B/2018 Date: 16/7/2019

#### **Technical Report**

Subject:

Revision of the Environmental and Social Impact Assessment Scoping Report for the oil and gas offshore exploration drilling - Block 4 - Lebanon

References:

- Law 444 dated 29/7/2002 (Protection of the Environment)
- Law 690 dated 26/8/2005 (Establishment of the Ministry of Environment and Identification of its mandates)
- Decree 3275 dated 15/6/2009 (Organization of the Ministry of Environment's units and determining its functions and staffing and the special conditions of appointment in some of its positions)
- Decree 8633 dated 7/8/2012 (Fundamentals of Environmental Impacts Assessment)
- Minister of Environment decision 261/1 dated 12/6/2015 (Procedures of revision of Environmental Impact Assessment Scoping Report and Environmental Impact Assessment Report)
- Minister of Environment decision 70/1 dated 26/2/2019 (Establishment of a Technical Committee to follow up the EIA guidelines and to review the Environmental studies related to the oil and gas exploration in the Lebanese Offshore area)
- Environmental and Social Impact Assessment Scoping Report for the oil and gas offshore exploration drilling Block 4 Lebanon, registered at the Ministry of Environment under the number 4308/B/2018 dated 3/7/2019

Reference is made to the above mentioned subject and references;

The technical committee has the below comments:

| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed  | Justification  |
|--|--|--|
| Introduction   |  | THE STATE OF THE S |
| References   |  |  |
| Objectives   | <ul> <li>EIA Team:</li> <li>Provide contact person and contact details for both RSK and Dar Al-Handasah.</li> <li>A table should be included identifying all experts / contributors to the EIA with their specific task</li> <li>CVs for all consultants involved in the development of the EIA are required to be provided to MoE as soft copies</li> </ul> | Not provided   |

ر ۱۰

e D.T.

| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed   | Justification   |
|--|---|---|
| Requirement of an<br>Environmental Impact<br>Assessment                    | Screening: In the EIA, correct that the response to screening had been done by the MoE and not LPA, refer to letter dated 7/8/2018.   | This is the mandate of the MoE not LPA as mentioned in this section                                       |
|  | Impact Assessment: In the EIA, correct the name of the decree is fundamentals of Environmental Impact Assessment (8633/2012).   | The name of the decree is stated incorrectly  |
| Study Area   | The Areas of Influence (AOIs) are to be clearly defined in the EIA. The link between the priority area and the various AOIs is to be clarified.  The AOIs need to take into consideration the identification of sensitive and key biodiversity areas. | The definition of<br>the AOIs is not<br>clear   |
| Scope of Work  | 250   |   |
| The Report   |   | BYRLEY III THE RE   |
| Legal and Institutional<br>Framework                                       | National Institutional Framework:  - It is expected to conduct a stakeholders mapping to identify relevant entities based on their specific mandates in the oil and gas sector.   | - The rationale behind the selection of the described entities is not clear.                              |
|  | - Describe environmental as well as social entities and mandates in this context.   | - Only some environmental mandates were described. Entities with solely social mandates are not mentioned |
|  | - Some entities were missing, such as Ministry of foreign affairs (transboundary impacts) and Ministry of finance (customs authority responsible of the port), inter alia. Some roles were irrelevant or inaccurate.                                  | - Not mentioned   |
|  | - MoE roles and responsibilities should include also Basel convention, Barcelona convention, Montreal Protocol and Stockholm convention.  | - Not mentioned   |



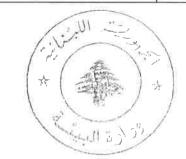


| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed   | Justification  |
|--|---|--|
|  | Therefore, this section is to be corrected and updated during the development of the EIA.   |  |
| •:   | National policies, plans, programmes and strategies:  - It should be noted that the offshore SEA is not a plan, policy or program, but only input to any of these. This should be corrected.  | - Inaccurately mentioned information                                 |
|  | <ul> <li>The bullet lists need to be clearly structured:</li> <li>Main legislation applicable to the marine environment,</li> <li>general environmental legislation and</li> <li>petroleum legislation and key environmental requirements.</li> </ul>   | - It is unclear how the division of the bullet lists is made and why |
|  | - Waste and chemicals plans, strategies, policies, etc are to be taken into consideration in the national section   | - Not mentioned  |
| *,   | National Legislations: The below legal texts are to be taken, among others, into consideration during the development of the EIA: - Law of Customs - Law of Protected Areas - Decisions of the MoE setting the standards for environmental quality (Decision 8/1 dated 2001 and Decision 52/1 dated 1996) | Not mentioned  |
|  | <ul> <li>EIA Process and Approval:</li> <li>The information stating that there are three pathways for approval is inaccurate. Referral to the EIA Decree and EIA guidelines is to be done while developing the EIA.</li> </ul>  | - Inaccurately mentioned information                                 |
|  | - Referral to the EIA guidelines is to be done while developing the EIA regarding timelines.  | - Timeline is not shown in the process                               |
| -  | International Conventions and Agreements: - In the EIA, a clear separation between international conventions, protocols and agreements is to be made.   | - Not clearly differentiated   |
| 17   | - In the EIA, the list of international treaties is to be revisited, making sure to include among others, the below:  O Stockholm Convention  | - Not mentioned  |



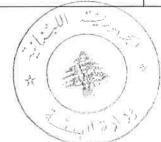


| Information required in the Environmental                               | Requested to be completed   | Justification   |
|---|---|---|
| Impact Assessment Scoping Report  |   |   |
| Scoping Report  | <ul> <li>Montreal Protocol</li> <li>Minamata Convention</li> <li>Land Base Source Protocol (LBS)</li> </ul>   |   |
|   | - In the EIA, under the context of Barcelona Convention, a clear specification of the protocols ratified by Lebanon have to be done.  | - Not specified   |
| 5   | - Total's specifications are described under chapter 2.6 (international conventions and agreements) however they were supposed to be presented under chapter 2.7 (corporate commitments).  As these documents are not publicly available, their content/focus needs to be explained wherever mentioned. As referencing to them only is insufficient. A copy of the corporate documents should be made available to both the MOE and LPA for a proper assessment.  | - These standards were mentioned without being made available             |
|   | - There had been a reference to OSPAR recommendation 2008/1 related to the pre-screening of chemicals. This had been superseded by the recommendation of 2017/1. In the EIA, TOTAL is to confirm that it will apply the most recent version and provide a summary or copy of the recommendation.  | - Information<br>that's not up to<br>date                                 |
|   | Best available industry practices: There are other best international practices that should be recognized e.g. IFC or IOGP. This should be expanded during the EIA  | Incomplete information  |
| Coordination between<br>Public Institutions and<br>Public Participation | The stakeholder engagement process is considered not to be appropriate for the following reasons:  - The mapping of stakeholders has been incomplete and lacking a clear rationale and methodology. Social development NGOs/CSOs were e.g. not invited.  - The SEP was shared only one day prior to engagement activities and was not submitted in due time for review and feedback as per the EIA Decree and guidelines  - Engagement has to be undertaken for each EIA, i.e. for each Block independently  - The invitations were disseminated at very short notice and led to a low participation turn-out | The Chapter is incomplete and require further elaboration and information |





| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed   | Justification |
|--|---|---------------|
|  | <ul> <li>It was mentioned that stakeholder analysis was conducted along with the methodology (impact of project, influence on project, interest in project). However, the results of this analysis are not presented nor how this influenced the stakeholder engagement process and the public participation process in general and stakeholder identification in particular. This has led to a mismatch of stakeholder groups to be consulted on environmental versus social issues.</li> <li>The stakeholder engagement programme and the EIA scoping didn't envision the need for interviews with authorities for data collection and confirmation of data. A check for updates and confirmations with stakeholders {such as CAS, MoSA, MoE (different departments), MoC, CNRS (NCMS + RS)} are requested.</li> <li>The engagement process during scoping has culturally not been appropriate (slides in English). It is required that future engagement is conducted fully in Arabic using Arabic presentation materials. If translation is required, it needs to be professional and efficient.</li> <li>Not all comments received online have been listed and it is unclear whether and how Total has reacted to those</li> </ul> |               |
|  | Stakeholder engagement and public consultation – scoping phase:  It was mentioned that 'stakeholder engagement undertaken during scoping has influenced EIA planning and informed engagement activities that will be undertaken during and after preparation of the EIA report (see Section 5.5).  The EIA is to explain how this has influenced the planning.  | Not explained |
| # Table 1  | Identification of stakeholders: It was mentioned that "The discussions and scoping consultations with the MoE and LPA had been done during the identification of stakeholders" (See Section 5.2). This statement is inaccurate. As, The discussions and scoping consultations with the MoE and LPA have only been undertaken after the stakeholder engagement. This is to be rectified in the EIA phase.  |               |





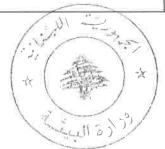


| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed   | Justification       |
|--|---|---------------------|
|  | Preparation and organization of public consultation and stakeholder engagement meeting  In the EIA;  It is required to submit a list of invitees with proofs of receipt of the invitation showing the receiving party and their signature. That being said, Appendices 1 and 3 of the scoping report are not considered sufficient evidence.  It is also expected to attach the proof of publication in local newspapers and photos of the publications in the municipalities.  It is also expected to attach photos of the held meetings as proofs  It is crucial to consult in due time, key stakeholders that could not attend engagement and/or consultation on order to ensure their inputs are reflected in the EIA, e.g. Ministry of Agriculture and Ministry of Culture among others. |                     |
|  | <ul> <li>Public consultation: <ul> <li>The date and timing of the EIA Public Consultation (s) should be well evaluated to meet the stated objective to "ensure maximum attendance and minimize interference with communities"</li> <li>It is expected that invitations for public meetings will not only be posted at the related municipalities within the identified AOIs. Public institutions are required to be invited by letter with proof of receipt as described above within a timeframe as per rules and regulations.</li> </ul> </li></ul>   | Missing information |
|  | <ul> <li>Stakeholder meetings:</li> <li>In the EIA:</li> <li>It is required to provide statistics on the attendance rate related to evaluate participation success during the engagement meetings (statistics per type of meeting, groups, type of stakeholders)</li> </ul>   |                     |
|  | - It is requested that FAQs as well as any other informative documentation shared as part of stakeholder engagement are available primary in Arabic   |                     |

\* ( \* ( \* ) ) ) ) ) )

ر م ۲۰۷۰

| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed  | Justification  |
|--|--|--|
| Scoping Report   |  | per the<br>Appendix 4  |
|  | Questions raised by stakeholders:  | Appendix 4   |
|  | - The minutes of the public meeting are not reflecting the actual discussions. Questions and responses were not accurately reported. This is a critical issue in terms of transparency in reflecting the actual discussions. The questions were summarized in terms of topics but these do not reflect what the actual concerns that were raised were and how they will be addressed. That being said, this comment is to be rectified during the EIA phase. | information  |
|  | - While all the questions were added to the register in Appendix 6, a summary of the main concerns raised by stakeholders which will be followed up during EIA preparation should be included as well. In another terms, it has to be ensured that all comments/concerns are considered during the EIA stage, even those being irrelevant to the project clearly identified.   | - These comments represent the concerns of the different stakeholders and community representatives therefore need to be properly addressed and if not justified |
| ,  | - It is also noted that only one presentation has been prepared for all meetings (engagement and consultation, Appendix 12). Presentations and disseminated information should, however, be tailored to the target group.  | were not tailored for  |
|  | - Engagement presentations are missing in the report. Therefore should be provided in the EIA.   | - Not available information  |
|  | - Appendix 6 is not clear regarding whether a response has actually been provided, e.g. for LOGI. This should be rectified in the EIA  |  |
|  | - It is required that responses to comments are appropriate and actually tailored to the comment made.   | - Many responses are   |





| Information required in the Environmental | Requested to be completed  | Justification   |
|---|--|---|
| Impact Assessment Scoping Report          |  |   |
| Scoping Report                            |  | considered insufficient.  |
|   | Next steps for stakeholder engagement:  - It is to be noted that Elard is not to be considered under the academia.   | - Inaccurate information  |
|   | - The new list of stakeholders should be justified.  | - The current list was not based on a clear criteria of selection.            |
|   | - A description is required detailing the standards and methods to be applied for EIA disclosure to the public. There should be more info on how to improve engagement based on lessons learnt from the engagement already conducted at the scoping phase including timing, location of meetings (outside Beirut), etc. and ensure participation of key and vulnerable/marginalized stakeholders   | - The conducted stakeholder engagement during scoping phase proved to be weak |
| Project Description                       | - The project description is too limited and incomplete. All planned activities including those being onshore and offshore require a full description. The safety zone should also be described as it will have impacts. Optional activities should also be clearly described (e.g. appraisal drilling, well testing, inter alia). Coordinates and details for all the onshore and offshore project components should also be provided in the EIA. | - Incomplete description of the project                                       |
|   | A description of the drilling program including drilling depths for each section and an inventory of the different waste and chemical types and volumes to be generated or used should be provided in the EIA.   |   |
|   | - The structure of the chapter is confusing as it mixes project components (MODU, well design, drilling fluids), project activities (discharges, cementing, logging, etc.) and risks (drilling hazards). A clear structure and description should be provided in EIA.  | components, activities and  |
|   |  |   |





ل ۸. دنیایی

| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed  | be completed Justification   |  |
|--|--|--|--|
|  | - The provided information on drilling mud types is very high level and there are no provided commitments of Total regarding mud formulation or limits, e.g. heavy metals, Hg or Cd contents for barite or cement. That being said the above is to be detailed in the EIA.                 | - Very general information that need to be detailed  |  |
|  | - The project schedule is to be detailed and a clear linkage must be shown between scheduling and the impact assessment.   | - The project schedule is very high level and indicates that there is no linkage between scheduling and the impact assessment even though timing can be an important mitigation measure. This also points at a lack of feedback loop between the technical and environmental planning. |  |
|  | Mobile offshore drilling unit:  - Oil-in-water content of open drain effluents to comply with the most stringent among international commitments, national, international and TOTAL standards. Justification of the limits adopted as well as the demonstration of strictness is required. | - Not justified information  |  |
|  | - "Ballast water will be discharged in line with the International Convention for the Control and Management of Ships' Ballast Water and Sediments". The measures to be adopted to adhere to the Convention are required.  | the convention was not proved  |  |





وخات

| Information required | Requested to be completed  | Justification                                    |
|----------------------|--|--|
| in the Environmental |  |  |
| Impact Assessment    |  |  |
| Scoping Report       | Drilling Hazards:  |  |
|                      | - A summary of the assessment on hazards (geohazards and man-made) should be provided in the EIA.  | - Not provided information                       |
|                      | - Surface wells were mentioned without being defined or explained; therefore this should be tackled n the EIA.   | Surface wells were not defined                   |
| #3<br>2*             | Drilling fluids: All drilling activities have to abide by the national chemicals management strategy and national waste management strategy  | Not mentioned                                    |
|                      | <ul> <li>Well logging:</li> <li>It is not clear when well logging is expected to be undertaken. This is to be clarified and elaborated in the EIA to avoid misunderstanding.</li> </ul>  | - Not clear information                          |
|                      | - As well testing remains an option, then its impacts need to be addressed in the impacts' section.  | - Not addressed                                  |
| g.                   | Vertical seismic profile: The description of VSP is too short and simplistic, even though it will have a range of impacts if undertaken. Details have to be provided in the EIA.   | Not well described                               |
|                      | Abandonment:  - The description of abandonment in chapter 3.2.8 refers to "standard procedures" but there is no further information being provided about the nature and content of these standards. More information should be provided in the EIA.  | - Standards procedures were not described        |
| *                    | The rationale for leaving the wellhead in place is to be provided in the EIA.  | - Not provided                                   |
|                      | Schedule: Timelines for the various activities of the exploration drilling project including all the phases is to be presented.  | The scoping report shows contradictory timelines |
|                      | الليزيا  |  |
|                      | The state of the s |  |



| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed  | Justification            |  |  |
|--|--|--------------------------|--|--|
|  | <ul> <li>Shore based operations and transfers:         <ul> <li>It is required that the EIA will include any approvals or contractual documentation related to the activities/base in the port and a justification of the choice of location.</li> </ul> </li> </ul>           | - Not provided           |  |  |
|  | - Further information is required regarding the vessels dedicated for supply and waste transportation. The estimated time for travel and number of trips should be provided.   | - Not provided           |  |  |
|  | - Additional information is required on the supply base and the transport corridors (e.g., inter alia, regarding explosives, radioactive materials, hazardous waste, LMP)  | - Not provided           |  |  |
|  | Mobilization and demobilization phase.  The EIA is expected to cover marine operations as applicable in addition to rig activities.  |                          |  |  |
| Project Environmental<br>Baseline  | It is required that the EIA does not only repeat information from the draft SEA without tailoring it to the purpose of the EIA.  |                          |  |  |
|  | - The information on geology and geohazards requires tailoring to the project and information on HAZID and other specific risk studies have to be considered.  | nor the well location    |  |  |
|  | - The chapter on baseline should be clearly linked to the impact assessment chapter and be proportionate.  |                          |  |  |
|  | - Maps should focus on the wider Block 4 area, as applicable, instead of e.g. the whole Mediterranean.   |                          |  |  |
|  | - A description of the environmental conditions related to the onshore base should also be provided.   |                          |  |  |
| -  | Bathymetry:  - The first sentence of the sub section 4.2.1 is not accurate.  The Law 163/2011 uses the legal definition of continental shelf and not the technical definition. It is to be differentiated between the technical and legal definition of the continental shelf. | - Inaccurate information |  |  |

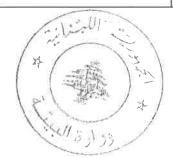


| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed  | Justification             |
|--|--|---------------------------|
|  | - Figure 4.4 is not clear regarding the presence of isolated mounts and a legend is missing. Therefore to be revisited and rectified in the EIA.   | - Incomplete information  |
|  | Over pressured zones:  The potential presence of mud volcanoes within or in the vicinity of Block 4 should be described. Figure 4.11 is not providing relevant information in this respect.  | Not complete information  |
|  | Seabed sediments: It is required that the described studies are revisited for references and complemented. Additional studies include, inter alia, EDESSA study  | Not complete information  |
|  | Currents and tides It is stated that no survey data will be gathered on currents. A rationale why should be provided, especially considering that currents are described as requiring additional focus in the EIA (chapter 7.3)        | Contradictory information |
|  | Biological Environment: - Protected areas and sensitive habitats are described but it is unclear how the EBS data will inform these issues. Therefore this is to be clarified.   | Not complete information  |
|  | - The relationships and distances of the mentioned protected sites to Block 4 and the proposed well location should be provided in the EIA.  |                           |
|  | - There are different types of sensitive areas beyond the category of protected areas. All types should be included:  o Protected estuaries o UNESCO sites o SPA o ECLA proposed sites o Proposed MPA bordering Block 4 facing Jounieh |                           |
|  | bay (after OCEANA study)  - It was mentioned under section 4.3 that no sampling was undertaken within Block 4 area however Figure 4.21 shows that a big portion of the survey area fell within the                                     |                           |





| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed  | Justification                         |
|--|--|---------------------------------------|
|  | borders of Block 4 which hints that sampling may had been undertaken within the OCEANA project. This is to be revisited during the EIA. In addition, the most important OCEANA findings are to be included in the EIA (species, distribution, observations) as OCEANA has delivered a full report on the findings.   | E .                                   |
|  | Archeology and cultural heritage:  - It is required to provide the distance of the sites in Table 4.4 in relation to Block 4 and the well location in the EIA.   | Information needs further development |
| V  | - It is to be noted that a new marine archeology study has been completed by Ministry of Culture in the South as well as another recently completed survey in Byblos. The relevant information from those studies are to feed the EIA.   |                                       |
|  | - The following sentence had been stated "Regarding Block 4, no existing baseline data has been reported that requires further survey to be conducted". This is inaccurate, thus to be rectified in the EIA.   | ⊗                                     |
|  | The section describes the current knowledge on cultural heritage sites. However, there is no mentioning of any survey activities that have been or will be undertaken (e.g. for geohazard or shallow gas identification, unexploded ordnance (UXO) or site clearance, etc.) which could be also used for the identification of marine cultural heritage. It is therefore unclear whether geophysical or other surveys (planned for other purposes) will/can be used to also identify cultural heritage and thus increase the knowledge base. This is particularly relevant as the area is likely to be rich in unknown archaeological/cultural heritage sites. That being said, further elaboration is needed. |                                       |
|  | - There is a separate section 4.4.16 on cultural heritage in the socio-economic baseline. This is inconsistent and should be combined with section 4.3.8.  | I'                                    |

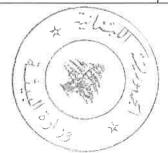




| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed  | Justification   |
|--|--|---|
|  | Seascape: The bulleted list of coastal areas protected by law should be mapped in relation to Block 4 (including the well location) and planned activities.  | The needed information was not covered  |
|  | <ul> <li>Socio-economic environment:         <ul> <li>The section that describes the work being undertaken on the SBS including methodology, targeted information and gaps to be filled is not informative enough.</li> </ul> </li> <li>The social assessment expected in the EIA is vague. It is a requirement to explicitly define the objectives and purpose of the SIA.</li> </ul>   | The provided information are incomplete or inaccurate, thus needs further development |
|  | - The relationship between particular topics, e.g. chapter 4.4.5.3 vulnerable groups and the proposed project is not clear. This should be more elaborated in the EIA.   |   |
|  | - Corruption and illegal practices (e.g. waste management) are mentioned in various places but not consistently and not as part of the impact assessment while crime and conflict appear in Table 6-1. Consistency between the baseline description and the impact assessment is necessary. Corruption and illegal practices may, however, have an effect on the project and thus require consideration and possibly mitigation. |   |
| So   | - Citation of all information related to refugees (whether related to numbers or perception or impact) should be included in the EIA.  |   |
| Se.  | - All information presented within this section and throughout the report need to be properly referenced or clearly stated that it is the consultants' assessment.   |   |
| ¥61  | - It is very important to ensure that the SIA is appropriately scaled to the nature and scale of the proposed project. Any data presented should be up to date and relevant to the project.  |   |
|  | - The expression 'lack of universities serving the Mount<br>Lebanon Governorate' is not accurate. There are many   |   |



| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed   | Justification |
|--|---|---------------|
|  | universities in this Governorate (USEK, USJ, NDU, etc., in addition to Lebanese University (Hadath, Fanar, Jaleldib, Roumieh, etc.).  |               |
|  | - In addition to cultural heritage related tourism, there are other touristic establishments along the beach that are not identified. This should be revisited to be further comprehensive.   |               |
|  | - Shipping lines and commercial marine activities are not described. Thus, it should be developed in the EIA.   |               |
|  | - The solid waste section is outdated and requires revision and information on hazardous waste.   |               |
|  | - Revisit the section 4.4.15 and focus more on security issues related to the project AOI and affected communities.   |               |
|  | - In table 4.6, the distance of the listed cultural heritage sites should be specified with respect to Block 4 and its well locations, and this should be merged with section 4.3.8.  |               |
|  | - Explain the relevance of Akkar - Arqa to the project.   |               |
|  | - The section 4.4.17 has to be revisited as it was not clear how the VCs were identified and based on which criterias. Explain why these VCs were scoped in and others scoped out.  |               |
|  | The VCs stated are very narrow. It is expected, at the EIA phase, to broaden the definition as applicable to the project (such as community well-being or workforce management among others) and include under the VC the different sub-components to be addressed (such as community health, safety and security, livelihood or other. |               |
| e  | - The sampling methodology is not very clear and expected to be revisited for the EIA. Explain the geographic extent of sampling and how it is linked with the identified AOIs.   |               |

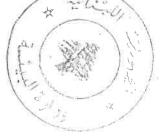




| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed   | quested to be completed  Justification  |  |
|--|---|---|--|
| Scoping Report Potential Environmental Impacts                             | <ul> <li>Preliminary impacts identified: <ul> <li>Information on the impact assessment methodology requires to be consistent with the use of the term significance and severity.</li> <li>Scoring for intensity and sensitivity have to be provided.</li> </ul> </li> <li>The matrix represents a summary of affected VECs per activity, however, there is no discussion, analysis or supporting justification of why or why not an activity affects a particular VEC.</li> <li>The rationale behind the matrix, although stemming from the SEA, is not explained.</li> <li>The impacts on terrestrial habitats and archaeological resources is not captured for the onshore related activities. Example; chemical transportation by land and chemical storage onshore.</li> <li>There is no clear linkage between Chapter 4 and Chapter 6 and also discrepancy between the social VCs listed in</li> </ul> | The provided information are incomplete or inaccurate, thus needs further development and quality assurance |  |
|  | <ul> <li>Table 6.1 and those identified in section 4.4.17.</li> <li>An identification of all likely impacts from all foreseen activities and project components, including for instance the abandonment and demobilisation should be described. Optional activities should also be assessed (e.g. VSP, well testing, mud plant) but clearly stated as optional.</li> <li>Re-injection of drilling waste should only be described if this is a real option for exploration drilling.</li> <li>Projections/plans related to local content are to be further developed and elaborated including the capacity building,</li> </ul>  |   |  |
|  | Unplanned / accidental events:  A full description of accidental events is required to provide insight into what scenarios are considered. A rationale for the choice of worst credible scenarios is to be provided.  |   |  |



| Information required in the Environmental Impact Assessment Scoping Report   | Requested to be completed  | Justification   |
|--|--|---|
| Project Alternatives   |  |   |
| Environmental<br>Management Plan   | - Management plans to be developed as part of the EMP are to be specified and tailored to Block 4 exploration drilling activities in accordance with the EIA Guidelines.   | - EMP is not provided however it was covered under the chapter "ToR for the EIA"      |
|  | - All comments on previous chapters have to be considered for the ToR of the EIA and adherence to the EIA Decree and EIA Guidelines is required  | - The scoping report was not drafted in adherence with both EIA guidelines and decree |
|  | As no clear descriptions of the various AOIs (nor identification of VECs/VCs/receptors) have been provided in the Scoping Report, the approach for the EIA is not clear. The scoping report has not been used to scope VECs in or out and it is unclear which VECs will be taken forward in the EIA. This requires clarification. Cultural heritage and social baseline, geohazards and man-made hazards (UXO e.g.) are examples of what had not been mentioned. | - Information not well tackled  |
| Task 5: Potential impacts of the project:  The impact assessment methodology needs to be adapt accordance with the EIA guidelines. It is currently un how a score for magnitude/intensity would be aggree from the various criteria stated or how significance three would be defined. |  | Unclear<br>methodology  |
|  | Task 7: Environmental Management Plan The contingency planning should also include consideration of potential relief wells.  | Incomplete information  |
|  | Drilling discharges modelling All potential cutting and drilling fluid management and discharge routes at sea should be evaluated and presented.  Demonstration of impacts by modelling need to be provided considering appropriate waste volumes and types  | Section needs<br>further<br>development   |
|  | ( rilio)   |   |



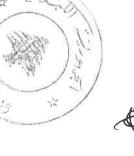


| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed   | Justification             |
|--|---|---------------------------|
|  | Accidental hydrocarbon spill modelling It had been said that a variant of a well blow out scenario with small amounts of condensate will be considered as worst case credible scenario. It is important that a worst case oil spill scenario is also considered during the EIA development. Furthermore, the rationale behind the choice of worst credible scenarios is to be provided. | Not mentioned information |

### General comments that apply to the whole scoping report:

- The scoping report is considered insufficient with respect to several aspects these include but not limited to:
  - Quality Assurance to ensure only feasible statements are made. Reinjection of cuttings for this first exploration well in chapter 6 is an example
  - O Chapter 4 and 6 are not well inter-related
  - Impacts were identified based on the draft offshore SEA instead of being project specific. The EIA requires to be a project specific assessment
- VECs are not scoped in/out with consistency. The process is lacking for environment on another note, for social, section 4.4 VCs were identified. The rationale for scoping in or out and the process need to be defined. Definitions of VC, receptor or VECs are to be provided. Similar terminology is to be applied throughout document.
- The EIA has to demonstrate that it is an interactive process involving technical, EIA experts and other disciplines in decision-making. This applies throughout the EIA process including, inter alia, the choice of alternatives and definition of mitigation measures.
- The study area and various areas of influence (AOI) are insufficiently described and justified. The report does not differentiate between AOIs for indirect and accidental impacts. It is therefore for example not possible to assess whether stakeholders are tailored to the AOI or not, no rationale for stakeholder selection was provided. The various AOIs should be clearly described and mapped.
- Issues such as supply chain, transportation issues, onshore activities, well testing and other potential activities, are required to be further addressed.
- Terminology is required to be consistently applied.
- All references stated throughout the EIA have to be listed in the reference section. All studies should be properly referenced.

- All figures should have legends and show Block 4 as applicable.



Reference to the above, the technical committee suggests proceeding with the preparation of the Environmental Impact Assessment Report, on conditions that all the above comments being well taken into account during the development of the Environmental Impact Assessment Report.

In addition, the below is required:

- Abide by the Sector-specific EIA guidelines for oil and gas reconnaissance and exploration drilling activities in Lebanon (Draft dated July 2019)
- Update the Stakeholder Engagement Plan for the EIA and submit to the Ministry of Environment as soon as possible in order to review it and provide feedback
- Ensure the presence of the Lebanese Consultancy Firm's logo at the EIA study and not only the foreigner consultancy firm
- Submit 5 hard copies and 5 soft copies of the EIA report to the Ministry of Environment as per applicable rules and regulations

#### **Technical Committee members:**

| Name                | Position        | Service                                    | Signature  |
|---------------------|-----------------|--|--|
| Lama Mghames        | Head            | PCB Management in the Power Sector Project | The same of the sa |
| Nathalie Karam      | Reporter Member | Environmental Technology                   | notholy  |
| Nizar Hani          | Member          | Natural Resources                          | 0/   |
| Daniah Turjman      | Member          | Environmental Technology                   |  |
| Ebtihaj Abou Chakra | Member          | Urban Environment                          | Schilas  |



# Scoping Report MoE comments with added column as to where they are addressed in the EIA report.

Ref. Number: 4308/B/2018 Date: 16/7/2019

### **Technical Report**

| Subject:    | Revision of the Environmental and Social Impact Assessment Scoping Report for the oil and gas offshore exploration drilling - Block 4 - Lebanon   |
|-------------|---|
| References: | Law 444 dated 29/7/2002 (Protection of the Environment) Law 690 dated 26/8/2005 (Establishment of the Ministry of Environment and Identification of its mandates) Decree 3275 dated 15/6/2009 (Organization of the Ministry of Environment's units and determining its functions and staffing and the special conditions of appointment in some of its positions) Decree 8633 dated 7/8/2012 (Fundamentals of Environmental Impacts Assessment) Minister of Environment decision 261/1 dated 12/6/2015 (Procedures of revision of Environmental Impact Assessment Scoping Report and Environmental Impact Assessment Report) Minister of Environment decision 70/1 dated 26/2/2019 (Establishment of a Technical Committee to follow up the EIA guidelines and to review the Environmental studies related to the oil and gas exploration in the Lebanese Offshore area) Environmental and Social Impact Assessment Scoping Report for the oil and gas offshore exploration drilling - Block 4—Lebanon, registered at the Ministry of Environment under the number 4308/B/2018 dated 3/7/2019  Reference is made to the above-mentioned subject and references; |

The technical committee has the below comments:

| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed   | Justification   | Where<br>addressed<br>in the EIA |
|--|---|---|----------------------------------|
| Objectives   | <ul> <li>Provide contact person and contact details for both RSK and Dar Al-Handasah.</li> <li>A table should be included identifying all experts / contributors to the EIA with their specific task</li> <li>CVs for all consultants involved in the development of the EIA are required to be provided to MoE as soft copies</li> </ul>   | Not provided  | Appendix<br>1.1                  |
| Requirement of an Environmental Impact Assessment                          | Screening: In the EIA, correct that the response to screening had been done by the MoE and not LPA, refer to letter dated 7/8/2018.   | This is the mandate of the MoE not LPA as mentioned in this section                                 | 1.8.2                            |
|  | Impact assessment: In the EIA, correct the name of the decree is fundamentals of Environmental Impact Assessment (8633/2012).   | The name of the decree is stated incorrectly  |                                  |
| Study Area   | The Areas of Influence (AOIs) are to be clearly defined in the EIA. The link between the priority area and the various AOIs is to be clarified.  The AOIs need to take into consideration the identification of sensitive and key biodiversity areas.   | The definition of<br>the AOI is not<br>clear  | 5                                |
| The Report   |   |   |                                  |
| Legal and<br>Institutional   | National Institutional Framework:   | <ul><li>The rationale</li></ul>   | 2<br>Table 2.1                   |
|  | <ul> <li>It is expected to conduct a stakeholders mapping to identify relevant entities based on their specific mandates in the oil and gas sector.</li> <li>Describe environmental as well as social entities and mandates in this context.</li> <li>Some entities were missing, such as Ministry of foreign affairs (transboundary impacts) and Ministry of finance (customs authority responsible of the port), inter alia. Some roles were irrelevant or inaccurate.</li> </ul> | behind the selection of the described entities is not clear. Only some environmen tal mandates were |                                  |

| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed  | Justification   | Where<br>addressed<br>in the EIA |
|--|--|---|----------------------------------|
|  | MoE roles and responsibilities should include also Basel convention, Barcelona convention, Montreal Protocol and Stockholm convention.  Therefore, this section is to be corrected and updated during the development of the EIA.  | described. Entities with solely social mandates are not mentioned - Not mentioned   |                                  |
|  | National policies, plans, programmes and strategies:  - It should be noted that the offshore SEA is not a plan, policy or program, but only input to any of these. This should be corrected.  The bullet lists need to be clearly structured:  Main legislation applicable to the marine environment,  general environmental legislation and  petroleum legislation and key environmental requirements.  Waste and chemicals plans, strategies, policies, etc are to be taken into consideration in the national section | <ul> <li>Inaccurately mentioned information</li> <li>It is unclear how the division of the bullet lists is made and why</li> <li>Not mentioned</li> </ul> | 2.3<br>Table 2.2                 |
|  | National Legislations: The below legal texts are to be taken, among others, into consideration during the development of the EIA:  Law of Customs Law of Protected Areas Decisions of the MoE setting the standards for environmental quality (Decision 8/1 dated 2001 and Decision 52/1 dated 1996)   | Not mentioned   | Table 2.3                        |
|  | EIA Process and Approval:  The information stating that there are three pathways for approval is inaccurate. Referral to the EIA Decree and EIA guidelines is to be done while developing the EIA.   | Inaccurately mentioned information  Timeline is not shown in the process  | 2.5                              |

| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed  | Justification  | Where<br>addressed<br>in the EIA |
|--|--|--|----------------------------------|
|  | Referral to the EIA guidelines is to be done while developing the EIA regarding timelines.  International Conventionas and Agreements:  In the EIA, a clear separation between international conventions, protocols and agreements is to be made.  In the EIA, the list of international treaties is to be revisited, making sure to include among others, the below:  Stockholm Convention Montreal Protocol Minamata Convention Land Base Source Protocol (LB S)  In the EIA, under the context of Barcelona Convention, a clear specification of the protocols ratified by Lebanon have to be done.  Total's specifications are described under chapter 2.6 (international conventions and agreements) however they were supposed to be presented under chapter 2.7  As these documents are not publicly available, their content/focus needs to be explained wherever mentioned. As referencing to them only is insufficient. A copy of the corporate documents should be made available to both the MOE and LPA for a proper assessment.  There had been a reference to OSPAR recommendation 2008/1 related to the prescreening of chemicals. This had been | <ul> <li>Not clearly differentiate d</li> <li>No mentioned</li> <li>Not specified</li> <li>These standards were mentioned without being made available</li> <li>Information that's not up to date</li> </ul> | 2                                |
|  | superseded by the recommendation of 2017/1. In the EIA, TOTAL is to confirm that it will apply the most recent version and provide a summary or copy of the recommendation.  Best available industry practices: There are other best international practices that should be information recognized e.g. IFC or IOGP. This should be expanded during the EIA  | Incomplete   | 2.9                              |

| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed  | Justification             | Where<br>addressed<br>in the EIA |
|--|--|---------------------------|----------------------------------|
| Coordination between Public Institutions and Public Participation          | The stakeholder engagement process is considered not to be appropriate for the following reasons:  The mapping of stakeholders has been incomplete and require further information lacking a clear rationale and methodology. Social elaboration and development NGOs/CSOs were e.g. not invited.  The SEP was shared only one day prior to engagement activities and was not submitted in due time for review and feedback as per the EIA Decree and guidelines  Engagement has to be undertaken for each EIA, i.e. for each Block independently. The invitations were disseminated at very short notice and led to a low participation turn-out  It was mentioned that stakeholder analysis was conducted along with the methodology (impact of project, influence on project, interest in project). However, the results of this analysis are not presented nor how this influenced the stakeholder engagement process and the public participation process in general and stakeholder identification in particular. This has led to a mismatch of stakeholder groups to be consulted on environmental versus social issues.  The stakeholder engagement programme and the EIA scoping didn't envision the need for interviews with authorities for data collection and confirmation of data. A check for updates and confirmations with stakeholders (such as CAS, MoSA, MoE (different departments), MoC, CNRS (NCMS + RS)) are requested.  The engagement process during scoping has culturally not been appropriate (slides in English). It is required that future engagement is conducted fully in Arabic using Arabic presentation materials. If translation is required, it needs to be professional and efficient. | The Chapter is incomplete | 3                                |

| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed   | Justification       | Where<br>addressed<br>in the EIA                          |
|--|---|---------------------|---|
|  | Not all comments received online have been listed and it is unclear whether and how Total has reacted to those  Stakeholder engagement and public consultation — scoping phase:  It was mentioned that 'stakeholder engagement undertaken during scoping has influenced EIA planning and informed engagement activities that will be undertaken during and after preparation of the EIA report (see Section 5.5).  The EIA is to explain how this has influenced the planning.  | Not explained       | 3 SEP (lessons learnt)                                    |
|  | Identification of stakeholders:  It was mentioned that "The discussions and scoping consultations with the MoE and LPA had been done during the identification of stakeholders" (See Section 5.2). This statement is inaccurate. As, the discussions and scoping consultations with the MoE and LPA have only been undertaken after the stakeholder engagement. This is to be rectified in the EIA phase.   |                     |   |
|  | Preparation and organization of public consultation and stakeholder engagement meeting In the EIA;  It is required to submit a list of invitees with proofs of receipt of the invitation showing the receiving party and their signature. That being said, Appendices 1 and 3 of the scoping report are not considered sufficient evidence.  It is also expected to attach the proof of publication in local newspapers and photos of the publications in the municipalities.  It is also expected to attach photos of the held meetings as proofs It is crucial to consult in due time, key stakeholders that could not attend engagement and/or consultation on order to ensure their inputs are reflected in the EIA, e.g. Ministry of Agriculture and Ministry of Culture among others. | Missing information | Appendix 3.3  Appendix 3.10  Appendix 3.11  Appendix 3.14 |

| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed  | Justification   | Where<br>addressed<br>in the EIA                                    |
|--|--|---|---|
|  | Public Consultation: The date and timing of the EIA Public Consultation (s) should be well evaluated to meet the stated objective to "ensure maximum attendance and minimize interference with communities" It is expected that invitations for public meetings will not only be posted at the related municipalities within the identified AOIs. Public institutions are required to be invited by letter with proof of receipt as described above within a timeframe as per rules and regulations.   | Missing information   | Appendix 3.17   |
|  | Stakeholder meetings: In the EIA:  It is required to provide statistics on the attendance rate related to evaluate participation success during the engagement meetings (statistics per type of meeting, groups, type of stakeholders)  It is requested that FAQs as well as any other informative documentation shared as part of stakeholder engagement are available primary in Arabic  | <ul> <li>Not detailed information</li> <li>The FAQs were only made available in English as per the Appendix 4</li> </ul>  | 3   |
|  | Questions raised by stakeholders:  The minutes of the public meeting are not reflecting the actual discussions. Questions and responses were not accurately reported. This is a critical issue in terms of transparency in reflecting the actual discussions. The questions were summarized in terms of topics but these do not reflect what the actual concerns that were raised were and how they will be addressed. That being said, this comment is to be rectified during the EIA phase.  While all the questions were added to the register in Appendix 6, a summary of the main concerns raised by stakeholders which will be followed up during EIA preparation should be included as well. In another terms, it has to be ensured that all comments/concerns are considered during the EIA stage, even those being irrelevant to the project clearly identified | <ul> <li>Inaccurate         Information</li> <li>These         comments         Represent         the         concerns of         the different         stakeholders         and         community         representati         ves         therefore         need to be         properly         addressed         and if not         justified</li> </ul> | Appendix 3.6 Appendix 3.7 Appendix 3.12 Appendix 3.15 Appendix 3.15 |

| Information<br>required in the<br>Environmental<br>Impact<br>Assessment<br>Scoping Report | Requested to be completed  | Justification  | Where<br>addressed<br>in the EIA |
|---|--|--|----------------------------------|
|   | <ul> <li>It is also noted that only one presentation has been prepared for all meetings (engagement and consultation, Appendix 12). Presentations and disseminated information should, however, be tailored to the target group.</li> <li>Engagement presentations are missing in the report. Therefore should be provided in the EIA.</li> <li>Appendix 6 is not clear regarding whether a response has actually been provided, e.g. for LOGI. This should be rectified in the EIA</li> <li>It is required that responses to comments are appropriate and actually tailored to the comment made.</li> </ul> | <ul> <li>Presentation         s were not         tailored for         target         groups</li> <li>Not         available         information</li> <li>Not         available         information</li> <li>Many         responses         are         considered         insufficient</li> </ul> | Appendix 3.18  Appendix 3.19     |
|   | Next steps for stakeholder engagement:  - It is to be noted that Elard is not to be considered under the academia.  - The new list of stakeholders should be justified.  - A description is required detailing the standards and methods to be applied for EIA disclosure to the public. There should be more info on how to improve engagement based on lessons learnt from the engagement already conducted at the scoping phase including timing, location of meetings (outside Beirut), etc. and ensure participation of key and vulnerable/marginalized stakeholders                                    | <ul> <li>Inaccurate information</li> <li>The current list was not based on a clear criteria of selection.</li> <li>The conducted stakeholder engagement during scoping phase proved to be weak</li> </ul>  | 3                                |
| Project<br>Description  | <ul> <li>The project description is too limited and incomplete. All planned activities including those being onshore and offshore require a full description. The safety zone should also be described as it will have impacts. Optional activities should also be clearly described (e.g. appraisal drilling, well testing, inter alia). Coordinates and</li> </ul>   | <ul> <li>Incomplete         description         of the         project</li> <li>Not provided</li> <li>Project         components,         activities and         risks are not</li> </ul>  | 4                                |

| Information required in the Environmental Impact Assessment | Requested to be completed  | Justification   | Where<br>addressed<br>in the EIA           |
|---|--|---|--|
| Scoping Report  | details for all the onshore and offshore project components should also be provided in the EIA.  A description of the drilling program including drilling depths for each section and an inventory of the different waste and chemical types and volumes to be generated or used should be provided in the EIA.  The structure of the chapter is confusing as it mixes project components (MODU, well design, drilling fluids), project activities (discharges, cementing, logging, etc.) and risks (drilling hazards). A clear structure and description should be provided in EIA.  The provided information on drilling mud types is very high level and there are no provided commitments of Total regarding mud formulation or limits, e.g. heavy  metals, Hg or Cd contents for barite or cement. That being said the above is to be detailed in the EIA.  The project schedule is to be detailed and a clear linkage must be shown between scheduling and the impact assessment.  Mobile offshore drilling unit:  Oil-in-water content of open drain effluents to comply with the most stringent among international commitments, national, international and TOTAL standards. Justification of the limits adopted as well as the demonstration of strictness is required.  "Ballast water will be discharged in line with the International Convention for the Control and Management of Ships' Ballast Water and Sediments". The measures to be adopted to adhere to the Convention are required.  Drilling Hazards:  A summary of the assessment on hazards (geohazards and man-made) should be provided in the EIA. | well divided and described  Very general information that needs to be detailed  The project schedule is very high level and indicates that there is no linkage between scheduling and the impact assessment even though timing can be an important mitigation measure. This also points t a lack of feedback loop between the technical and environmenta I planning.  Not justified information  Adherence to the convention was not proved  Not provided information  Surface wells were not defined | This information would be in the geohazard |
|   | defined or explained; therefore this should be tackled in the EIA.   |   | study and<br>drilling<br>assessment        |

| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed  | Justification   | Where<br>addressed<br>in the EIA                   |
|--|--|---|--|
|  |  |   | study that Total conducted – outwith scope of EIA. |
|  | Drilling fluids:  - All drilling activities have to abide by the national chemicals management strategy and national waste management strategy   | Not mentioned   | 4.4.4  |
|  | Well logging:  - It is not clear when well logging is expected to be undertaken. This is to be clarified and elaborated in the EIA to avoid misunderstanding   | Not clear<br>information<br>Not addressed                     | 4.4.7  |
|  | Vertical seismic profile: The description of VSP is too short and simplistic, even though it will have a range of impacts if undertaken. 'Details have to be provided in the EIA.  | Not well<br>described   | 4.4.9  |
|  | Abandonment:  The description of abandonment in chapter 3.2.8 refers to "standard procedures" but there is no further information being provided about the nature and content of these standards. More information should be provided in the EIA.  The rationale for leaving the wellhead in place is to be provided in the EIA. | Standards<br>procedures were<br>not described<br>Not provided | 4.4.10   |
|  | Schedule: Timelines for the various activities of the exploration drilling project including all the phases is to be presented.  | The scoping report shows contradictory timelines              | 4.8  |
|  | Shore based operation and transfers:  - It is required that the EIA will include any approvals or contractual documentation related to the activities/base in the port and a justification of the choice of location.  - Further information is required regarding the vessels dedicated for supply and waste                    | Not provided  | 4.5.8  |

| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed  | Justification   | Where<br>addressed<br>in the EIA |
|--|--|---|----------------------------------|
|  | transportation. The estimated time for travel and number of trips should be provided.  - Additional information is required on the supply base and the transport corridors (e.g., inter alia, regarding explosives, radioactive materials, hazardous waste, LMP)  Mobilization and demobilization phase:   | Not provided  | 4.3.1                            |
| Project<br>environmental<br>baseline                                       | The EIA is expected to cover marine operations as applicable in addition to rig activities.  It is required that the EIA does not only repeat information from the draft SEA without tailoring it to the purpose of the EIA.  The information on geology and geohazards requires tailoring to the project and information on HAZID and other specific risk studies have to be considered.  The chapter on baseline should be clearly linked to the impact assessment chapter and be proportionate.  Maps should focus on the wider Block 4 area, as applicable, instead of e.g. the whole Mediterranean.  A description of the environmental conditions related to the onshore base should also be provided. | Information is general and not tailored to tackle neither the block 4 nor the well location | 5                                |
|  | Bathymetry:  The first sentence of the sub section 4.2.1 is not accurate. The Law 163/2011 uses the legal definition of continental shelf and not the technical definition. It is to be differentiated between the technical and legal definition of the continental shelf.  Figure 4.4 is not clear regarding the presence of isolated mounts and a legend is missing.  Therefore to be revisited and rectified in the EIA.   | <ul> <li>Inaccurate information</li> <li>Incomplete information</li> </ul>                  | 5.3.1.9                          |
|  | Over pressured zones: The potential presence of mud volcanoes within or in the vicinity of Block 4 should be described. Figure 4.11 is not providing relevant information in this respect Seabed sediments: It is required that the described studies are revisited for references and complemented. Additional studies  | Not complete information  Not complete information  | 5.3.2.4                          |

| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed   | Justification                               | Where<br>addressed<br>in the EIA |
|--|---|---|----------------------------------|
|  | Currents and tides: It is stated that no survey data will be gathered on currents. A rationale why should be provided, especially considering that currents are described as requiring additional focus in the EIA (chapter 7.3)  | Contradictory<br>information                | 5.3.1.4                          |
|  | Biological environment:  Protected areas and sensitive habitats are described but it is unclear how the EBS data will inform these issues. Therefore this is to be clarified.  The relationships and distances of the mentioned protected sites to Block 4 and the proposed well location should be provided in the EIA.  There are different types of sensitive areas beyond the category of protected areas. All types should be included:  Protected estuaries  UNESCO sites  SPA  ECLA proposed sites  Proposed MPA bordering Block 4 facing Jounieh bay (after OCEANA study)  It was mentioned under section 4.3 that no sampling was undertaken within Block 4 area however Figure 4.21 shows that a big portion of the survey area fell within the borders of Block 4 which hints that sampling may had been undertaken within the OCEANA project. This is to be revisited during the EIA. In addition, the most important OCEANA findings are to be included in the EIA (species, distribution, | Not complete information                    | 5.4                              |
|  | observations) as OCEANA has delivered a full report on the findings.  Archeology and cultural heritage: It is required to provide the distance of the sites in Table 4.4 in relation to Block 4 and the well location in the EIA It is to be noted that a new marine archeology study has been completed by Ministry of Culture in the South as well as another recently completed survey in Byblos. The relevant information from those studies are to feed the EIA.   | Information<br>needs further<br>development | 5.5.3.10                         |

| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed  | Justification                          | Where<br>addressed<br>in the EIA |
|--|--|--|----------------------------------|
|  | The following sentence had been stated "Regarding Block 4, no existing baseline data has been reported that requires further survey to be conducted". This is inaccurate, thus to be rectified in the EIA.  The section describes the current knowledge on cultural heritage sites. However, there is no mentioning of any survey activities that have been or will be undertaken (e.g. for geohazard or shallow gas identification, unexploded ordnance (UXO) or site clearance, etc.) which could be also used for the identification of marine cultural heritage. It is therefore unclear whether geophysical or other surveys (planned for other purposes) will/can be used to also identify cultural heritage and thus increase the knowledge base. This is particularly relevant as the area is likely to be rich in unknown archaeological/cultural heritage sites.  That being said, further elaboration is needed. There- is a separate section 4.4.16 on cultural heritage in the socio-economic baseline. This is inconsistent and should be combined with section 4.3.8. |  |                                  |
|  | Seascape: The bulleted list of coastal areas protected by law should be mapped in relation to Block 4 (including the well_location) and planned activities.  | The needed information was not covered | 5.3.3                            |
|  | Socio-economic environment:  The section that describes the work being undertaken on the SBS including methodology, targeted information and gaps to be filled is not informative enough.  The social assessment expected in the EIA is vague. It is a requirement to explicitly define the objectives and purpose of the SIA.  The relationship between particular topics, e.g. chapter 4.4.5.3 vulnerable groups and the proposed project is not clear. This should be more elaborated in the EIA.  Corruption and illegal practices (e.g. waste management) are mentioned in various places but not consistently and not as part of the impact assessment while crime and conflict appear in  |  | 5.5                              |

| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed  | Justification | Where<br>addressed<br>in the EIA |
|--|--|---------------|----------------------------------|
|  | Table 6-1. Consistency between the baseline description and the impact assessment is necessary. Corruption and illegal practices may, however, have an effect on the project and thus require consideration and possibly mitigation.  Citation of all information related to refugees (whether related to numbers or perception or impact) should be included in the EIA.  All information presented within this section and throughout the report need to be properly referenced or clearly stated that it is the consultants' assessment.  It is very important to ensure that the SIA is appropriately scaled to the nature and scale of the proposed project. Any data presented should be up to date and relevant to the project.  The expression 'lack of universities sewke Mount Lebanon Governorate' is not accurate. There are many universities in this Governorate (USEK, USJ, NDU, etc., in addition to Lebanese University (Hadath, Fanar, Jaleldib, Roumieh, etc.)  In addition to cultural heritage related tourism, there are other touristic establishments along the beach that are not identified. This should be revisited to be further comprehensive.  Shipping lines and commercial marine activities are not described. Thus, it should be developed in the EIA.  The solid waste section is outdated and requires revision and information on hazardous waste  Revisit the section 4.4.15 and focus more on security issues related to the project AOI and affected communities.  In table 4.6, the distance of the listen cultural heritage sites should be specified with respect to Block 4 and its well locations, and this should be merged with section 4.3.8  Explain the relevance of Akkar- Arqa to the project  The section 4.4.17 has to be revisited as it was not clear how the VCs were identified and based |               |                                  |
|  |  |               | l                                |

| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed  | Justification   | Where<br>addressed<br>in the EIA |
|--|--|---|----------------------------------|
|  | on which criteria's. Explain why these VCs were scoped in and others scoped out.  The VCs stated are very narrow. It is expected, at the EIA phase, to broadened the definition as applicable to the project (such as community well-being or workforce management among others) and include under the VC the different sub-components to be addressed (such as community health, safety and security, livelihood or other).  In table 4.6 the distance of the listed cultural heritage sites should be specified with respect to Block 4 and its well locations, and this should be merged with section 4.3.8.  |   |                                  |
| Potential environmental impacts  | Preliminary impacts identified:  Information on the impact assessment methodology requires to be consistent with the use of the term significance and severity. Scoring for intensity and sensitivity have to be provided.  The matrix represents a summary of affected VECs per activity, however, there is no discussion, analysis or supporting justification of why or why not an activity affects a particular VEC.  The rationale behind the matrix, although stemming from the SEA, is not explained.  The impacts on terrestrial habitats and archaeological resources is not captured for the onshore related activities. Example; chemical transportation by land and chemical storage onshore.  There is no clear linkage between Chapter 4 and Chapter 6 and also discrepancy between the social VCs listed in Table 6.1 and those identified in section 4.4.17.  An identification of all likely impacts from all foreseen activities and project components, including for instance the abandonment and demobilisation should be described. Optional | The provided information are incomplete or inaccurate, thus needs further development and quality assurance | 6                                |

| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed  | Justification   | Where<br>addressed<br>in the EIA       |
|--|--|---|--|
|  | well testing, mud plant) but clearly stated as optional.  Re-injection of drilling waste should only be described if this is a real option for exploration drilling.  Projections/plans related to local content are to be further developed and elaborated including the capacity building, etc.  |   |  |
|  | Unplanned/ accidental events:  A full description of accidental events is required to provide insight into what scenarios are considered. A rationale for the choice of worst credible scenarios is to be provided.  | Not well covered  | 1.8.7.4<br>6.5                         |
| Environmental<br>Management Plan   | <ul> <li>Management plans to be developed as part of the EMP are to be specified and tailored to Block 4 exploration drilling activities in accordance with the EIA Guidelines</li> <li>All comments on previous chapters have to be considered for the ToR of the EIA and adherence to the EIA Decree and EIA Guidelines is required</li> <li>As no clear descriptions of the various AOIs (nor identification of VECs/VCs/receptors) have been provided in the Scoping Report, the approach for the EIA is not clear. The scoping report has not been used to scope VECs in or out and it is unclear which VECs will be taken forward in the EIA. This requires clarification. Cultural heritage and social baseline, geohazards and man-made hazards (UXO e.g.) are examples of what had not been mentioned.</li> </ul> | EMP is not provided however it was covered under the chapter "ToR for the EIA" The scoping report was not drafted in adherence with both EIA guidelines and decree Information not well tackled | 8 (EMP<br>framework<br>was<br>covered) |
|  | Task 5: Potential impacts of the project: The impact assessment methodology needs to be adapted in accordance with the EIA guidelines. It is currently unclear how a score for magnitude/intensity would be aggregated from the various criteria stated or how significance thresholds would be defined.  Task 7: Environmental Management Plan: The contingency planning should also include  | Unclear<br>methodology<br>Incomplete<br>information   | 1.8.7                                  |
|  | consideration of potential relief wells.  Drilling discharges modelling:  All potential cutting and drilling fluid management and discharge routes at sea should be evaluated and  | Section needs<br>further<br>development   | 6.3.1.2                                |

| Information required in the Environmental Impact Assessment Scoping Report | Requested to be completed                             | Justification | Where<br>addressed<br>in the EIA |
|--|---|---------------|----------------------------------|
|  | presented. Demonstration of impacts by modelling      |               |                                  |
|  | need to be provided considering appropriate waste     |               |                                  |
|  | volumes and type                                      |               |                                  |
|  | Accidental hydrocarbon spill modelling:               | Not mentioned | 6.5.2                            |
|  | It had been said that a variant of a well blow out    |               |                                  |
|  | scenario with information small amounts of            |               |                                  |
|  | condensate will be considered as worst-case           |               |                                  |
|  | credible scenario. It is important that a worst-case  |               |                                  |
|  | oil spill scenario is also considered during the EIA  |               |                                  |
|  | development. Furthermore, the rationale behind the    |               |                                  |
|  | choice of worst credible scenarios is to be provided. |               |                                  |

#### General comments that apply to the whole scoping report:

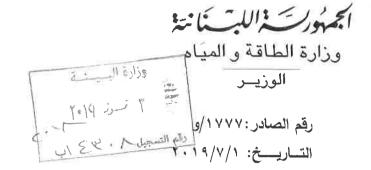
- The scoping report is considered insufficient with respect to several aspects these include but not limited to:
  - Quality Assurance to ensure only feasible statements are made. Reinjection of cuttings for this first exploration well in chapter 6 is an example
  - O Chapter 4 and 6 are not well inter-related
  - Impacts were identified based on the draft offshore SEA instead of being project specific. The EIA requires to be a project specific assessment
- VECs are not scoped in/out with consistency. The process is lacking for environment on another note, for social, section 4.4 VCs were identified. The rationale for scoping in or out and the process need to be defined. Definitions of VC, receptor or VECs are to be provided. Similar terminology is to be applied throughout document.
- The EIA has to demonstrate that it is an interactive process involving technical, EIA experts and other disciplines in decision-making. This applies throughout the EIA process including, inter alia, the choice of alternatives and definition of mitigation measures.
- The study area and various areas of influence (AOI) are insufficiently described and justified. The report does not differentiate between AOIs for indirect and accidental impacts. It is therefore for example no possible to assess whether stakeholders are tailored to the AOI or not, no rationale for stakeholder selection was provided. The various AOIs should be clearly described and mapped.
- Issues such as supply chain, transportation issues, onshore activities, well testing and other potential activities, are required to be further addressed.

Terminology is required to be consistently applied.

All references stated throughout the EIA have to be listed in the reference section. All studies should be properly referenced.

All figures should have legends and show Block 4 as applicable





# جانب وزير البيئة السيد فادي جريصاتي المحترم

الموضوع: موقف وزارة البيئة حيال تقرير المشغل شركة Total E&P Liban SAL حول تحديد نطاق تقييم الأثر البيئي المقترح للرقعة رقم ٤ في المياه البحرية اللبنانية.

المرجع: - القانون رقم ٢٠١٠/١٣٢ قانون الموارد البترولية في المياه البحرية.

- المرسوم رقم ۲۰۱۸ تاريخ ۲۰۱۲/٤/۱۹ (هيئة إدارة قطاع البترول).
  - المرسوم رقم ٢٠١٣/١٠٢٨ (الأنظمة والقواعد البترولية).
  - المرسوم ٢٠١٢/٨٦٣٣ المتعلق بأصول تقييم الأثر البيئي.
- اتفاقيتا الاستكشاف والإنتاج العائدتان للرقعتين ٤ و ٩ في المياه البحرية اللبنانية.
- قرار وزير الطاقة والمياه رقم ٢١/ ق.و تاريخ ٢٠١٨/٥/٢٨ القاضي بالموافقة على خطتي الاستكشاف العائدتين للرقعتين ٤ و ٩ في المياه البحرية اللبنانية.
  - كتاب وزير البيئة رقم ٤٣٠٨/ب تاريخ ٢٠١٨/٨/٧ القاضي بتصنيف مشروع الاستكشاف البترولي في المياه اللبنانية في الرقعتين ٤ و ٩.
- كتاب المشغّل شركة Total E&P Liban SAL توتال (TOTAL) إلى هيئة إدارة قطاع البترول تاريخ ٢٠١٩/٦/٢٨ والمسجل لدى الهيئة تحت الرقم ٣٧٧/هـ.و تاريخ ٢٠١٩/٦/٢٨ الذي يتضمن تقريراً حول تحديد نطاق تقييم الأثر البيئي المقترح للرقعة رقم ٤،
- كتاب هيئة إدارة قطاع البترول الى وزير الطاقة والمياه رقم ٧٨٠هـ تاريخ ١/٧/١ ٢٠١٩ والمسجل لدينا تحت الرقم ١٧٧٦/و تاريخ ٢٠١٩/٧/١.

# بالإشارة الى الموضوع والمرجع المذكورين أعلاه،

لمّا كانت مرحلة الاستكشاف في كل من الرقعتين ٤ و ٩ في المياه البحيرة اللبنانية قد انطلقت بموجب موافقة وزير الطاقة والمياه على خطتي الاستكشاف لكل من الرقعتين المذكورتين أعلاه بتاريخ ٢٨ أيار الله . لك . لك .

٢٠١٨، على أن تبدأ أعمال الحفر في البلوك رقم ٤ في أواخر العام ٢٠١٩ تليها أعمال الحفر في الرقعة رقم ٩ وذلك وفق خطتي الاستكشاف الموافق عليهما من قبل معالي وزير الطاقة والمياه،

وبناءً على كتاب وزير البيئة رقم ٤٣٠٨/ب تاريخ ٢٠١٨/٨/٧ حول تصنيف مشروع الاستكشاف البترولي في المياه اللبنانية في الرقعتين ٤ و ٩ ووجوب النقيد بإعداد دراسة تحديد نطاق تقييم الأثر البيئي لأعمال الحفر في كل من الرقعتين المذكورتين قبل المباشرة بإعداد دراسة تقييم الأثر البيئي،

ولمّا كان المشغّل شركة Total E&P Liban SAL قد قدم إلى هيئة إدارة قطاع البترول تقرير تحديد نطاق تقييم الأثر البيئي المقترح للرقعة رقم ٤ لمراجعة التقرير وإبداء الرأي وفقاً لأحكام المادة التاسعة من المرسوم ٢٠١٢/٧٩٦٨،

ولما كانت هيئة ادارة قطاع البترول ترغب في الحصول على موقف وزارة البيئة عملاً بأحكام المرسوم ٢٠١٢/٨٦٣٣ (أصول تقييم الأثر البيئي)، لاتخاذ القرار المناسب بشأن ذلك وعرضه على وزير الطاقة والمياه.

## بناء على ما تقدم،

نأمل منكم تحديد موقف وزارة البيئة من التقرير المعروض من قبل المشغل شركة Total E&P Liban ليبنى على الشيء مقتضاه. وفي حال الحاجة إلى أي إستيضاحات بخصوص التقرير المذكور أعلاه، نأمل منكم التواصل مع هيئة إدارة قطاع البترول.



#### مرفق ربطا:

- كتاب هيئة إدارة قطاع البترول إلى وزارة الطاقة والمياه تاريخ ٢٠١٩/٠٧/٠١.
- كتاب شركة توتال (TOTAL E&P LIBAN SAL) إلى هيئة إدارة قطاع البترول تاريخ ٢٠١٩/٠٦/٢٨.





رقم الصادر: ۸۰/هـ التاريخ: ۲۰۱۹/۷/۱

# معالى وزير الطاقة والمياه السيدة ندى البستاني المحترمة

الموضوع: موقف وزارة البيئة حيال تقرير المشغل شركة Total E&P Liban SAL حول تحديد نطاق تقييم الأثر البيئي للرقعة رقم ٤ في المياه البحرية اللبنانية.

المرجع: - القانون رقم ٢٠١٠/١٣٢ قانون الموارد البترونية في المياه البحرية.

- المرسوم رقم ٢٠١٧/٤/١٩ تاريخ ٢٠١٢/٤/١٩ (هيئة إدارة قطاع البترول).
  - المرسوم رقم ٢٠١٩/١٠٢٨ (الأنظمة والقواعد البترولية).
  - المرسوم رقم ٢٠١٢/٨٦٣٣ المتعلق بأصول تقييم الأثر البيئي.
- اتفاقيتا الاستكشاف والإنتاج العائدتان للرقعتين ٤ و ٩ في المياه البحرية اللبنانية.
- قرار وزير الطاقة والمياه رقم ٢١/ ق.و تاريخ ٢٠١٥/٥/٢٨ القاضي بالموافقة على خطتي الاستكشاف العائدتين للرقعتين ٤ و٩ في المياه البحرية اللبنانية.
- كتاب وزير البيئة رقم ٤٣٠٨/ب تاريخ ٢٠١٨/٨/٧ الى وزارة الطاقة والمياه حول تصنيف مشروع الاستكشاف البترولي في المياه اللبنانية في الرقعتين ٤ و ٩٠
- كتاب المشغّل شركة Total E&P Liban SAL توتال (TOTAL) إلى هيئة إدارة قطاع البترول تاريخ ٢٠١٩/٦/٢٨. والمسجل لدى الهيئة تحت الرقم ٧٧٧/هـ.و تاريخ ٢٠١٩/٦/٢٨ الذي يتضمن تقريراً حول تحديد نطاق تقييم الأثر البيئي المقترح للرقعة رقم

٤٤

# بالإشارة الى الموضوع والمرجع المذكورين أعلاه،

لمّا كانت مرحلة الاستكشاف في كل من الرقعتين ٤ و ٩ في المياه البحرية اللبنانية قد انطلقت بموجب موافقة معالي وزير الطاقة والمياه على خطتي الاستكشاف لكل من الرقعتين المذكورتين أعلام بتاريخ ٢٨



أيار ٢٠١٨، على أن تبدأ أعمال الحفر في البلوك رقم ٤ في أواخر العام ٢٠١٩ وتليها أعمال الحفر في الرقعة رقم ٩ وذلك وفق خطتي الاستكشاف الموافق عليهما من قبل معالي وزير الطاقة والمياه،

وبناءً على كتاب وزير البيئة رقم ٤٣٠٨/ب تاريخ ٢٠١٨/٨/٧ الى وزارة الطاقة والمياه حول تصنيف مشروع الاستكشاف البترولي في المياه اللبنانية في الرقعتين ٤ و ٩ ووجوب التقيّد بإعداد دراسة تحديد نطاق تقييم الأثر البيئي لأعمال الحفر في كل من الرقعتين المذكورتين قبل المباشرة بإعداد دراسة تقييم الأثر البيئي،

ولمّا كان المشغّل شركة Total E&P Liban SAL قد قدم إلى هيئة إدارة قطاع البترول تقريره حول ولمّا كان المشغّل شركة المقترح للرقعة رقم ٤ لمراجعة التقرير وإبداء الرأي حياله وفقاً لأحكام المادة التاسعة من المرسوم ٢٠١٢/٧٩٦٨ والحصول تباعاً على موقف وزارة البيئة وفقاً لأحكام المرسوم ٢٠١٢/٨٦٣٣ (أصول تقييم الأثر البيئي)،

ولما كان يقتضي وفقاً للمرسوم ٢٠١٢/٨٦٣٣ الحصول على موقف وزارة البيئة. بناء على ما تقدم،

نأمل من معاليكم التفضل بمراسلة معالي وزير البيئة ليصار الى تحديد موقف الوزارة من هذا التقرير تحديد نطاق تقييم الأثر البيئي العائدة للرقعة رقم ٤ في المياه البحرية اللبنانية.

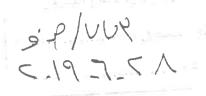
وتفضلوا بقبول فائق الاحترام

هيئة إدارة قطاع البترول الإدارة بالتكليف البريس مجلس الإدارة بالتكليف والمد نصر وليد نصر

مرفق ربطاً: - كتاب المشغل الذي يتضمن تقرير المشغل شركة توتال (TOTAL E&P LIBAN SAL) إلى هيئة إدارة قطاع البترول تاريخ ٢٠١٩/٠٦/٢٨



**TOTAL E&P LIBAN** 



#### 28 June 2019

#### Lebanese Petroleum Administration

1st Floor, Marfaa 200, Georges Akouri Street Downtown Beirut – Lebanon Att. Chairman

E-mail: epa2018@lpa.gov.lb

**Subject**: Block 4 Offshore Exploration Drilling Environmental and Social Impact Assessment Scoping Report (Revision 1)

Dear Walid,

Please find enclosed the revised Environmental and Social Impact Assessment Scoping Report for the planned offshore exploration drilling operations in Block 4. This report is submitted in accordance with the provisions of Decree no. 8633/2012 – Fundamentals of Environmental Impact Assessment.

As discussed in our previous meetings, we have included a summary of all questions and concerns raised during stakeholder engagement meetings and public meetings under Appendix 6. In addition, we took into consideration the Ministry of Environment and LPA comment (received in document ref. QHSE-19-004) that are relevant to the scoping report and we revised such report accordingly. We remain available should you require any clarification.

We kindly ask you to submit the enclosed report to the Ministry of Environment for their approval as soon as possible and to inform us of the outcome.

Yours Sincerely,

Ricardo Darré

General Manager

Adresse postale: Mathaf, Boulevard Pierre Gemayel, Immeuble Le Bureau, 4<sup>ème</sup> étage - Beyrouth, Liban Tél : (+961) 1 60 99 21

Total E&P LIBAN SAL - Société anonyme libanaise au capital de 30 000 000 L.L. - R.C. Beyrouth No. 1023681 Siège social: Beyrouth, 250 Rue Badaro, Immeuble Manhattan

Doc: Technical Note
No: QHSE-19-009

Rev: A

Date: 22-07-2019

# Technical Note



# **REVIEW OF EIA SCOPING REPORT FOR BLOCK 4**

#### 1 General

This technical note presents the recommendations of the QHSE department at the LPA regarding the EIA Scoping Report for Exploration Drilling Activities in Block 4 submitted by TOTAL E&P Liban.

A series of meetings were conducted between the QHSE department and the assigned committee at the Ministry of Environment to discuss and align comments.

### **2** Relevant Legislation

The review is based on the mandates and requirements defined in the below legal texts:

- Framework Law for the Protection of the Environment Framework Law 444/2002 (Art. 21)
- Offshore Petroleum Regulation Law 132/2010 (Art. 60)
- Fundamentals of Environmental Impact Assessment Decree 8633/2012 (Art. 10)
- Petroleum Activity Regulation Decree 10289/2013 (Art. 31, 91 & 92)
- Establishment of the Lebanese Petroleum Administration Decree 7968/2012 (Art. 9)

# 3 Background

- The Exploration Plan was submitted by TOTAL E&P Liban to the Minister of Energy and Water in May 2018.
- An EIA screening application for Exploration Drilling Activities in Block 4 was submitted in May 2018.
- The EIA screening application was submitted to Ministry of Environment (Letter 7151 of 30/07/2018).
- Ministry of Environment classified the Exploration Drilling Activities in Block 4 as an activity requiring the submission of an EIA (Letter 4308 of 07/08/2018),
- TOTAL E&P prepared a draft scoping report for the Exploration Drilling Activities in Block 4 and published it online for public consultation from May 3 to June 2, 2019.

Doc: Technical Note
No: QHSE-19-009

Rev: A

Date: 22-07-2019

# Technical Note



- LPA/QHSE department reviewed the published draft scoping report and shared with TOTAL its comments on the report on 04-06-2019.
- The EIA Scoping Report for Exploration Drilling Activities in Block 4 was submitted officially to LPA on 28-06-2019 and to Ministry of Environment through Minister of Energy (Letter 1777 of 01/07/2019).
- TOTAL submitted its response to LPA's comments on 15-07-2019.
- The Minister of Environment issued its official position on the report which included a conditional approval (Letter 4308 of 17/07/2019).

# 4 Key Findings and Recommendations

The QHSE Department found that the submitted report did not properly address all the comments raised on the first EIA Scoping draft as required by the applicable regulation. Findings of the review are presented in detail in Appendix 1.

While many key aspects are lacking, it is believed that the EIA could address these gaps. Accordingly, it is recommended to:

- Proceed with the EIA preparation taking into consideration the comments provided by the LPA on the scoping report included in Annex I.
- Integrate the comments provided by MoE (Letter 4308 of 17/07/2019).
- Submit an updated Stakeholder Engagement Plan (SEP) covering planned engagement activities for the remaining EIA process.
- Submit the Environmental Baseline Survey (EBS) data analysis report for Block 4.
- Closely coordinate (e.g. bi-weekly meetings) with LPA (and MoE as needed) for regular progress update during the preparation of the EIA study.
- Submit to LPA (in addition to MoE requirements) in the following formats:
  - o 1 hard copy
  - o 1 electronic copy in pdf format
  - 1 electronic copy in native format (Word, Excel, Shapefile, jpeg, avi, ESRI geodatabase, etc.).

TOTAL remains fully responsible to properly address all the raised comments by LPA and MoE in order to ensure compliance with the applicable regulations and to avoid any adverse implications on the planned activities.

Doc: Technical Note
No: QHSE-19-009

Rev: A

Date: 22-07-2019

# Technical Note



# **Appendix I: Comment Resolution Sheet**

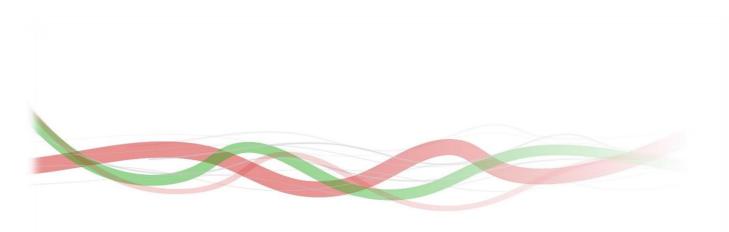


# Comment Resolution Sheet (CRS)



On

# Scoping for ESIA for Block 4



Doc. No. QHSE-19-007

Rev 2

No: QHSE-19-007

Rev: 2

Date: 22-07-2019



# 1 Document Details

| Document Title: | Block 4 (Lebanon) Offshore Exploration Drilling –<br>Environmental and Social Impact Assessment Scoping<br>Report |         | RSK/P/H/P/P80754/04/01 Block 4 |
|-----------------|---|---------|--------------------------------|
| Revision:       | 1   | Date:   | June 2019                      |
| Prepared by:    | RSK   | Others: |                                |

# 2 Review Details

| Reviewed by: | LPA – QHSE | Notes:   |
|--------------|------------|--|
| Status:      | Approved   | X Approved with Comments Resubmit as per comments Rejected |

# 3 Comments

| No. | Section    | Page | LPA Comment - Draft report<br>(04 June 2019)   | TOTAL Response<br>(15 July 2019)                          | LPA Comment - Final Report<br>(18 July 2019) |
|-----|------------|------|--|---|--|
| 1.  | Disclaimer |      | Please note that this CRS only addresses comments and clarifications on the environmental and social management of drilling activities and not on the technical/technological aspects described in the document. While the document includes | programme will be presented to LPA for discussion once it |  |

No: QHSE-19-007

Rev: 2



| No. | Section              | Page | LPA Comment - Draft report<br>(04 June 2019)   | TOTAL Response<br>(15 July 2019)   | LPA Comment - Final Report<br>(18 July 2019)  |
|-----|----------------------|------|--|--|---|
|     |                      |      | information relevant to the drilling location, equipment and process that was not shared or agreed with LPA before i.e. specs of DP class, cement class, well testing, well logging, well designetc, LPA retains our right to question and discuss these in the right forum. |  |   |
| 2.  | References           |      | <ul> <li>Please replace Eureka Energy (2019)<br/>by Draft EIA Guideline by MoE &amp; LPA<br/>(version and date)</li> <li>Please replace GFA/Projekt-Consult/GEUS/<br/>ELARD by Draft SEA Update by MoEW<br/>(version and date)</li> </ul>                                    | References have been changed in the Scoping Report as requested (multiple locations of changes).   | Changes incorporated  |
| 3.  | General<br>Comment   |      |  |  | Please note that the online comments presented are incomplete as LPA/MOE is aware about some received comments which have not been included in the register of received comments. |
| 4.  | Executive<br>summary | 1 -6 | -Introduction (p1): the proposed activities didn't include or refer to the logistic base, well related activities or potential relief well   | - It is acknowledged that the introduction did not include reference to the logistic base or other well related activities or the potential relief well. However, most of these points are raised on the | - Introduction: it is requested to cover these topics in detail in the EIA report.  |

No: QHSE-19-007

Rev: 2



| No. Section | Page | LPA Comment - Draft report<br>(04 June 2019)   | TOTAL Response<br>(15 July 2019)  | LPA Comment - Final Report<br>(18 July 2019)   |
|-------------|------|--|---|--|
|             |      |  | 2 <sup>nd</sup> page of the Exec<br>Summary. Potential<br>requirement for a relief well<br>is now included in the main<br>scoping report and is not<br>considered a focus for the<br>Exec Summary (see Section<br>3.2.3)<br>- Text on whether the well is<br>vertical or not has been | - Overview (p1): Changes noted   |
|             |      | - Overview (p1): it is mentioned that the well<br>be drilled vertically however our<br>understanding that it will be drilled with<br>deviation while only the reservoir section will<br>be drilled vertically; as this might have<br>implications and associated impacts that<br>need to be addressed. | edited to clarify (see Section 3.2.2)   | Overview (n2), in addition to the SEA  |
|             |      | -Overview (p2): it is mentioned that options for the disposal of treated cuttings is being considered. Please note that the SEA recommends specific options for waste management to be adopted by the government. If different options are considered, those need to be studied                        | reference to the SEA recommendations (no  | <ul> <li>Overview (p2): in addition to the SEA recommendations, waste management plans studied by the EIA should also be aligned with any waste management strategy developed for the Oil &amp; Gas sector. All options for waste management shall be subject to authorities' approval through the EIA process.</li> </ul> |

No: QHSE-19-007

Rev: 2



| No. | Section | Page | LPA Comment - Draft report  | TOTAL Response  | LPA Comment - Final Report   |
|-----|---------|------|---|---|--|
|     |         |      | (04 June 2019)  | (15 July 2019)  | (18 July 2019)   |
|     |         |      | thoroughly in the EIA or before and to justify selection subject to authorities approval.   | mud will be transferred to an appropriate location for treatment (See section 7.4.1).   |  |
|     |         |      | - Figure ES2 (p3): it is important that the map of AOI overlays sensitive area, protected areas and key biodiversity areas.   | Key biodiversity areas and protected areas are already included on Figure ES2 (no changes to Scoping Report)  | <ul> <li>The response is not accurate. Figure ES2         (p4) lacks Key biodiversity areas and protected areas.     </li> </ul> |
|     |         |      | - Summary of Baseline (p4): it is understood that the report mentioned in Bullet 1 is the desktop study to the ESBS as per the ESBS CFT which is an integral component of the scoping exercise. It is important that this report be integrated within the EIA scoping as well as included as Annex to the EIA scoping report. | Summary of Baseline (p4): - The results of the desktop ESBS study are summarized in the Scoping Report along with the other reports mentioned. In addition, the EBS scope has already been approved by the MoE and the LPA (no changes to Scoping Report) | - No further comment   |
|     |         |      |   |   | Additional Comments to be addressed in the EIA:  |

No: QHSE-19-007

Rev: 2



| No. | Section        | Page | LPA Comment - Draft report<br>(04 June 2019)   | TOTAL Response<br>(15 July 2019)   | LPA Comment - Final Report<br>(18 July 2019)   |
|-----|----------------|------|--|--|--|
|     |                |      |  |  | <ul> <li>Figure ES1: the objective of the map is not understood. The borders are wrong, please use official Lebanese borders in any maps.</li> <li>The referral to (priority area) is not understood. Please clarify what is meant by priority area to be able to assess implications. Figure ES1 and ES2 shows the priority area cut by half (almost) as compared to scoping earlier draft.</li> <li>It is stated that the first well will be plugged and abandoned without specifying whether this will be a temporary or permanent plugging and abandonment.</li> </ul> |
| 5.  | Table 1.1      | 2    | Please include the coordinates of the priority area  | Co-ordinates of the Priority<br>Area and proposed well<br>location are now provided<br>(See Table 3.1) | Changes Noted  |
| 6.  | 1.4 Study Area | 5    | The definition of the AOI is not clear:  - Bullet 2 is not clear  - What about the areas affected by dispersion of cuttings (top hole) and emissions | Text on primary and secondary (direct and indirect) AOI now updated (see Section 1.4)                  | The definition of the AOI shall be clarified in the EIA. Please clarify the link between the priority area and the various AOIs. It is important that the map of AOI overlays sensitive area, protected areas and key biodiversity areas.  |

No: QHSE-19-007

Rev: 2



| No. | Section            | Page | LPA Comment - Draft report<br>(04 June 2019)  | TOTAL Response<br>(15 July 2019)                    | LPA Comment - Final Report<br>(18 July 2019)   |
|-----|--------------------|------|---|---|--|
|     |                    |      | The executive summary described the AOI as consisting of 3 spheres; however the third sphere was not shown. Please check.   |   |  |
| 7.  | Table 2.1          | 8    | The presented roles and responsibilities are selective and simplistic. They do not reflect the scope of the relevant mandate of each entity. Please correct and update. In addition:  - Please replace ministry of energy and water by minister of energy and water.  - MOA: the mentioned information is not accurate and is not in line with the objective of the section to show the mandate of MOA.  It is expected that a stakeholder mapping is developed first to be able to identify relevant entities which should be based on their mandate and role. | replacements have been                              | <ul> <li>The rationale behind the selection of the entities described within the table is not clear. The presented roles and responsibilities are still simplistic and not comprehensive. A thorough analysis of the specific mandates of regulatory authorities, as applicable to the oil and gas sector, is expected to inform the EIA process.</li> <li>MOA: the mentioned information is still not accurate i.e.: The stated duplication of mandates with MoE is erroneous</li> <li>MOL: the mentioned information is not accurate. It should be clarified that the inspection mandates of the Ministry are applicable to onshore activities but this is not the case for offshore activities.</li> <li>LPA and MoEW roles relevant to EIAs as defined in Decree 7968/2012 and Decree 10289/2013 are not reflected accurately</li> </ul> |
| 8.  | 2.8 Best available | 14   | There are other best international practices that should be recognized e.g. IFC   | This is noted. IFC standards have not been included | - Total General Standards should be considered as corporate commitments and  |

No: QHSE-19-007

Rev: 2



| No. | Section                    | Page  | LPA Comment - Draft report<br>(04 June 2019)  | TOTAL Response<br>(15 July 2019)  | LPA Comment - Final Report<br>(18 July 2019)   |
|-----|----------------------------|-------|---|---|--|
|     |                            |       |   | within the Scoping Report. The EIA process will follow Total EIA standards which have the same spirit and philosophy as IFC standards (no changes to the Scoping Report).   | not confused with best available industry practice.  - All Total's referred General Standards shall be submitted to the LPA.  It was observed that IOGP (biodiversity baseline data), IAGC and ICPC guidance were removed from the earlier EIA scoping version. While IAGC and ICPC guidance on reconnaissance might not be relevant, please list the IOGP guidance. |
| 9.  | ESIA process & approval    | 11-12 | The process has to recognize LPA's and Minister of Energy and Water role relevant to EIAs as defined in Decree 7968/2012 and Decree 10289/2013.   | i   | The added text in Table 2.1 still doesn't reflect<br>the role relevant to EIAs as defined in Decree<br>7968/2012 and Decree 10289/2013   |
| 10. | 3.1 Project<br>Description | 16    | It is mentioned that TEP has acquired an 'exploration permit'. This term is not used in the Lebanese regulations. Please amend.  The project description should mention:  - Logistic supply base - Well related activities  Potential Relief Well | Terminology has been corrected (see Section 3.1).  Original text in the Scoping Report covers the Logistics supply base and other activities related to drilling. More detail added for Logistics Base (see Section 3.2.10), further information to be included in the EIA. | - Changes Noted  The project description is still considered too limited and incomplete. All planned activities incl. those being onshore and offshore require a full description in the EIA i.e.: management of explosive material, radioactive sources, hazardous waste management at supply base, etc   |

No: QHSE-19-007

Rev: 2



| No. | Section                 | Page | LPA Comment - Draft report<br>(04 June 2019)   | TOTAL Response<br>(15 July 2019)   | LPA Comment - Final Report<br>(18 July 2019)   |
|-----|-------------------------|------|--|--|--|
|     |                         |      |  | Brief information on a relief well now included in the Scoping Report (see Section 3.2.3). It should be noted that a relief well would only be instigated in an emergency, and more information will be supplied in the blow-out contingency plan. |  |
| 11. | Figure 3.1              | 17   | The points labeled 4PA, PB, PC and PD are not understood.  The legend for well is a solid circle, however this solid circle was used for El Batroun (onshore) and for the 4PA, PB, PC and PD points. | priority area. Co-ordinates of these vertices now added to   | - Changes Noted  |
| 12. | 3.2 Overview of Block 4 | 18   |  |  | The project description is incomplete and should include in the EIA a full description of the mobilization and implementation phases of the project (including offshore & onshore activities), as applicable, as well as the demobilization phase. |

No: QHSE-19-007

Rev: 2



| No. | Section                   | Page | LPA Comment - Draft report<br>(04 June 2019)  | TOTAL Response<br>(15 July 2019)  | LPA Comment - Final Report<br>(18 July 2019)   |
|-----|---------------------------|------|---|---|--|
| 13. | 3.2.1.1                   | 19   | Oil-in-water content of open drain effluents to comply with the most stringent among international commitments, national, international and TOTAL standards. Justification of the limits adopted as well as the demonstration of strictness is required.                        | Updates to the Scoping<br>Report have been included<br>(see Section 3.2.1.1)  | A Justification of the limits adopted as well as the demonstration of strictness is still lacking especially for oil-in-water content of open drain effluents.                         |
| 14. | 3.2.2 Well<br>Design      | 19   | It is mentioned that the 36 in and 26 in will be drilled with water based muds without riser hence cuttings will be dispersed to sea bottom: please clarify the expected depth of each of the sections of the full depth as well as the expected volume of associated cuttings. | The depths of each of these sections and the cuttings volumes which will arise will be included in the EIA (no change to Scoping Report).   | Comment Noted  |
| 15. | 3.2.3 Drilling<br>Hazards | 20   | The section limits drilling hazards to shallow gas only. Please check for other potential drilling hazards including other potential shallow hazards.   | Shallow gas is the main hazard. However, Total will perform a full drilling site assessment to assess any risk related to shallow hazard. This is part of the ADP (Authorization to Drill Permit – to be submitted to MoEW 8 weeks before spud date) that will be submitted to the authorities (see Section 3.2.3). | It should be noted that the EIA and ADP are interlinked and any assessment of shallow hazards of relevance to Environmental Impacts should be equally addressed in EIA, as applicable. |

No: QHSE-19-007

Rev: 2



| No. | Section               | Page | LPA Comment - Draft report<br>(04 June 2019)   | TOTAL Response<br>(15 July 2019)  | LPA Comment - Final Report<br>(18 July 2019)  |
|-----|-----------------------|------|--|---|---|
| 16. | 3.2.4 Drilling Fluids | 20   | There is referral to OSPAR for the management of chemicals; more information is needed on what is being complied within OSPAR. It is important that the GS-EP-ENV-001 be shared and a summary of the scope and approach be included. | All chemicals will comply with UK standards based on OSPAR and with Lebanese environmental regulations. GS-EP-ENV-001 is provided as an annex to this response to the LPA. A summary of the scope of the above standard was included in the Scoping Report (see Section 3.2.4, no change to Scoping Report) | The scoping report and the shared GS-EP-ENV-001 make reference to OSPAR recommendation 2008/1 related to the prescreening of chemicals. This recommendation is outdated and superseded by the recommendation of 2017/1.  It is expected to confirm in the EIA that the most recent version of the recommendation will be adopted. |
| 17. | 3.2.4.2               | 21   | More information on the category/class of NADF to be used, if any, is to be clarified here.  | Discussion of the three types of available NADF is provided in 3.2.4.2.  Additional information on Group III NADFs to be used when drilling the first exploration well will be provided in the EIA (see Section 3.2.4.2).   | Comment Noted   |
| 18. | 2.5                   | 24   |  |   | The EIA is expected to include a full description of the fate of unused cement brought on board   |

No: QHSE-19-007

Rev: 2



| No. | Section            | Page | LPA Comment - Draft report<br>(04 June 2019)   | TOTAL Response<br>(15 July 2019)   | LPA Comment - Final Report<br>(18 July 2019)  |
|-----|--------------------|------|--|--|---|
|     |                    |      |  |  | of the rig as well as fate of excess cement circulating in the system (cement pump and well) used during cementing operation.   |
| 19. | 3.2.6 well logging | 22   | It is not clear when well logging is expected to be undertaken. Please clarify to avoid misunderstanding.  As well testing remains an option, then its impacts need to be addressed in the impacts' section. | Well logging would take place once the well had reached its target depth (see Section 3.2.6).  Well testing is not planned for the first exploration well, however it may take place if an appraisal well is drilled. The EIA will include estimates of the emissions from such a test, and potential impacts from these emissions (see Section 7.4.4) | Comment Noted   |
| 20. | 3.2.8              | 23   | Please elaborate on the abandonment process i.e. equipment, plugging material  It is not clear why the wellhead will be left in place. Please clarify.  Please share the referred standard procedures.       | More details on well abandonment have been added to the Scoping Report (see Section 3.2.8).  | It is mentioned that the wellhead will be left in place as per international best practice at this depth. It is important to assess in the EIA the impacts of leaving the wellhead in place at its particular location. |

No: QHSE-19-007

Rev: 2



| No. | Section                              | Page | LPA Comment - Draft report<br>(04 June 2019)  | TOTAL Response<br>(15 July 2019)  | LPA Comment - Final Report<br>(18 July 2019)   |
|-----|--------------------------------------|------|---|---|--|
| 21. | 3.2.10 shore based operations        | 23   | Additional information is required on the supply base and the transport corridors to be able to understand the potential impacts. Focus on environmental issues related to the LMP is also needed.  | Further information about the logistics base facilities and activities has been included in the Scoping Report (see Section 3.2.10) Impacts from the operation of the base, including the LMP, will be included in the EIA (no change to Scoping Report). | Information included in the scoping report is still incomplete. A number of issues are still missing and ought to be included in the EIA such as but not limited to:  - Arrangement of the supply base - The transport corridors - It is not clear whether any radioactive, explosive or HNS items will be stored or transported It is not clear whether any waste material, including hazardous waste, will be stored and/or managed on supply base.  More details on Liquid Mud Plant and focus on associated environmental issues are needed. |
| 22. | 3.3<br>Mobilization & demobilization | 26   |   |   | It is also expected to cover marine operations mobilization and demobilization in this section, as applicable.   |
| 23. | 3.4 Project<br>Alternatives          | 23   | The mentioned alternatives missed a number of potential alternatives to address which could have various implications from an environmental perspective, such as:  - Well location - Drill ship type and specs (including DP class, age, equipment) | List of alternatives to be covered in the EIA has been expanded (See Section 3.4)   | The EIA has to demonstrate that all possible project development alternatives were taken into consideration  |

No: QHSE-19-007

Rev: 2



| No. | Section                  | Page  | LPA Comment - Draft report (04 June 2019) - Drilling technology  | TOTAL Response<br>(15 July 2019)   | LPA Comment - Final Report (18 July 2019)   |
|-----|--------------------------|-------|--|--|---|
|     |                          |       | - Drilling timing  Level of treatment of drill fluids and cuttings   |  |   |
| 24. | 4.1 Baseline Environment | 24-56 | This section has been observed to have relied heavily if not completely on the SEA study with instances of plagiarism. Indeed, the SEA objective is to provide relevant data for the EIA development however it is the EIA consultant role to check that these are up to date and to further customize the information to the EIA under study.  On another note, the SEA is still at the consultation stage and might undergo further updates or amendments; hence, it is important that the Consultant undertake their own data collection and reaffirms the information in the SEA before use at this stage. | The SEA has provided a reliable source of information that Total's EBS consultant has utilized in producing the Project's EBS.  The Project's EBS will also present data which is specific to Block 4, and check that the SEA data is up to date before including it in the EIA (no change to the Scoping Report).  Additional site specific baseline data has been collected but was not available for the scoping report. This will be presented in detail in the EIA (see Section 4.0 and Executive Summary). | In addition to the site specific baseline data analysis (analysis of data collected during the EBS), LPA expects the EIA to include a summary of the EBS objectives and methodology including scope and coverage. |

No: QHSE-19-007

Rev: 2



| No. | Section             | Page | LPA Comment - Draft report<br>(04 June 2019)  | TOTAL Response<br>(15 July 2019)  | LPA Comment - Final Report<br>(18 July 2019)   |
|-----|---------------------|------|---|---|--|
| 25. |                     |      | This section doesn't address at all the baseline for:  - Air quality and climate change Noise (underwater and above water)            | Text included in updated Scoping Report to cover baseline air quality (see Section 4.2.6) and underwater noise (see Section 4.2.5.4).  Noise levels above water level are only likely to be perceived from logistics base operations, and the will be within normal port operating conditions, therefore above water baseline noise conditions are not considered to be required (no change to Scoping Report). | The rationale for Scoping in/out has to be justified in the EIA  |
| 26. | 4.2.1<br>Bathymetry | 25   | The first sentence is not accurate. The law 163/2011 uses the legal definition of continental shelf and not the technical definition. | Definitions have been updated (see Section 4.2.1)   | The updated definition is still inaccurate. The Law 163/2011 uses the legal definition of continental shelf and not the technical definition. Please differentiate between both definitions of the continental shelf as relevant to the EIA. |
| 27. | 4.2.3 Seawater      | 34   | It is mentioned that the scope of EBS was agreed with MOE. Please note that EBS related work was agreed with both LPA and             | added to the Scoping Report   | Change Noted   |

No: QHSE-19-007

Rev: 2



| No. | Section               | Page | LPA Comment - Draft report<br>(04 June 2019)   | TOTAL Response<br>(15 July 2019)   | LPA Comment - Final Report<br>(18 July 2019)   |
|-----|-----------------------|------|--|--|--|
|     |                       |      | MOE. This is to be corrected wherever it appears.  |  |  |
| 28. | Table 4.2             | 36   | The first column is not clear.   | Table 4.2 has been modified for clarity.   | Change Noted   |
| 29. | 4.3.7 Protected areas | 48   | There are different types of sensitive areas beyond the category of protected areas. Please include all types:  - Protected estuaries - UNESCO sites - SPA - ECLA proposed sites - Proposed MPA bordering Block 4 facing Jounieh bay (after OCEANA study)  It is mentioned that no sampling was undertaken within Block 4 area however | Protected estuaries were identified in Figure 4.21 of the original Scoping Report and UNESCO sites were shown in Figure 4.24. Figure numbering in the revised Scoping Report has changed, and Figure 4.22 (originally Figure 4.21) has been updated to include SPAs. The extent of the Proposed MPA facing Jounieh bay will be established in discussion with LPA/MoE for inclusion in | Protected areas and sensitive habitats are described but it is unclear how the EBS data will inform these issues.  The relationships and distances of the mentioned sites to Block 4 and the proposed well location should be provided.  It is mentioned that no sampling was undertaken within Block 4 area however Figure 4.22 shows that a big portion of the survey area fell within the borders of Block 4. Please check and confirm.  OCEANA has delivered a full report on the findings. It is expected to include most |
|     |                       |      | Figure 4.22 shows that a big portion of the survey area fell within the borders of Block 4 which hints that sampling was undertaken. Please check and confirm.   | primary aim of the project was to provide first hand information about deep-sea ecosystems to help to  | important OCEANA findings here (species, distribution, observations) in the EIA report   |

No: QHSE-19-007

Rev: 2



| No. | Section             | Page | LPA Comment - Draft report<br>(04 June 2019)  | TOTAL Response<br>(15 July 2019)   | LPA Comment - Final Report<br>(18 July 2019) |
|-----|---------------------|------|---|--|--|
|     |                     |      | OCEANA has delivered a full report on the findings. Please include most important OCEANA findings here (species, distribution, observations)  | increase the protection of<br>Lebanese waters – and while<br>it is clear that the Jounieh<br>Canyon is of interest, the<br>extent of the site is not clear). |  |
|     |                     |      |   | ECLA proposed sites will be clarified with the LPA before inclusion in the EIA.  |  |
|     |                     |      |   | The sampling locations are presented in Figure 4.21 (formerly 4.20). All sampling sites in the OCEANA survey were outside of the Block 4 area.               |  |
|     |                     |      |   | Additional details from the OCEANA study will be included the final EBS Report and relevant information will be included in the EIA.                         |  |
| 30. | 4.3.8<br>archeology | 51   | It came to our attention that a new marine archeology study has been completed by Ministry of Culture in the South as well as another recently completed survey in Jbeil. Please include. | Information from the archaeology study will be sourced and included in the EIA if relevant (no change to the Scoping Report).                                | Comment Noted                                |

No: QHSE-19-007

Rev: 2



| No. | Section                           | Page  | LPA Comment - Draft report<br>(04 June 2019)  | TOTAL Response<br>(15 July 2019)   | LPA Comment - Final Report<br>(18 July 2019)   |
|-----|-----------------------------------|-------|---|--|--|
| 31. | EBS                               |       | The environmental baseline has referred at multiple instances to gaps which will be filled by the EBS. It is important that the scoping report include a summary of the EBS objectives and methodology including scope and coverage. The schedule of the EBS and expected input process to the ESIA process should also be included. In addition, the ESB scope and desktop study to be annexed to the EIA scoping. | Additional information on the scope and coverage of the environmental baseline survey has been included in the updated Scoping Report (See section 4.0, 4.1, 4.2 and 4.3).  Results from the field survey work will be available for inclusion in the EIA. | Please refer to comment no.24  |
| 32. | Socio-<br>economic<br>environment | 57-86 | - While the section addresses the national conditions, it is important to note that these differ from coastal line statistics and AOI focus areas. This need to be acknowledged and gaps relevant to the ESIA and AOI should be highlighted.  | The Scoping Report has been updated to address the AOI focus areas (Section 1.4), highlight the gaps and to describe the methodology for the social baseline data collection methodology (see Section 4.4.19).   | - The section including methodology, targeted information and gaps to be filled is not informative enough and shall be updated in the EIA. |
|     |                                   |       | - There should be a section that describes and summarizes the work being undertaken on the social   | Updates have been provided to describe the work that will be undertaken to collect   | <ul> <li>It is expected to explicitly define the<br/>objectives and the purpose of the SIA<br/>in the report.</li> </ul>                   |

No: QHSE-19-007

Rev: 2



| No. | Section                  | Page | LPA Comment - Draft report   | TOTAL Response  | LPA Comment - Final Report  |
|-----|--------------------------|------|--|---|---|
|     |                          |      | baseline including methodology, targeted information and gaps to be filled  - Please cite all information related to refugees (whether related to numbers or perception or impact).  All information presented need to be properly referenced or clearly state that it is the consultants' assessment. | information to fill the gaps (see Sections 4.4 and 5)  All information has been correctly referenced. In Section 4.4 or 5  All information has been correctly referenced. | - Three areas of influence are proposed for the SIA one of which covers the entire country of Lebanon which is creating some confusion with respect to the social and geographical boundaries for the SIA. It is very important at this level to ensure that the SIA is appropriately scaled to the nature and scale of the proposed project. |
| 33. | 4.4.9.4<br>Tourism       | 66   | The listing of touristic sites is very selective and have not focused on AOI and coastline i.e. Raouche rocks, touristic cities of Byblos, Batroun, Jounieh, Harissa   | Further information added to Scoping Report to cover the AOI and coastline touristic sites (see Section 4.4.11.4).  | Changes Noted   |
| 34. | 4.4.11<br>Infrastructure | 69   | - Electricity: It is mentioned that electricity is seasonal and relies on availability of water. Please clarify.  Waste: please include information about type of waste, waste management, facilities including hazardous waste  |   | Changes Noted   |

No: QHSE-19-007

Rev: 2



| No. | Section              | Page | LPA Comment - Draft report<br>(04 June 2019)  | TOTAL Response<br>(15 July 2019) | LPA Comment - Final Report<br>(18 July 2019)  |
|-----|----------------------|------|---|----------------------------------|---|
|     |                      |      |   | change to the Scoping<br>Report) |   |
| 35. | 4.4.13 public safety | 71   | This is very sensitive information. Please rewrite with caution and cite credible references. |                                  | Changes Noted   |
| 36. | 4.4.17               | 80   |   |                                  | <ul> <li>The rationale behind the selection of the VC is not clear. VCs are usually identified on the basis of comprehensive issues scoping, including review of available information and consultation with key stakeholders, which reveals the values and priorities of government, affected groups, the public, and other stakeholders. The EIA is expected to include values and priorities identified during the scoping process</li> <li>VCs listed in this section are narrowly defined. It is expected to broaden the definition of the VCs, as applicable to the proposed project, to be able to address a wider range of VC subcomponents in the SIA</li> </ul> |

No: QHSE-19-007

Rev: 2



| No. | Section                          | Page | LPA Comment - Draft report<br>(04 June 2019)   | TOTAL Response<br>(15 July 2019)  | LPA Comment - Final Report<br>(18 July 2019)   |
|-----|----------------------------------|------|--|---|--|
|     |                                  |      |  |   | It is expected from the ESIA to identify the specific indicators that will be used to measure and report on the condition and trend of a VC.   |
| 37. | 5.2<br>Stakeholder<br>engagement | 75   | The stakeholder engagement programme and the ESIA scoping didn't envision the need for interviews with authorities for data collection and confirmation of data. We advise to check for updates and confirmations with CAS, MoSA, MOE (different departments), MoC, CNRS (NCMS + RS) | Text has been added to clarify the stakeholders and the stakeholder engagement programme (see Section 4.4 and 5). Key authorities with specialist knowledge of topic areas such as cultural heritage, fisheries and social welfare have been identified and meetings are taking place (see Section 4.4.19). | - Text added to the report only cover data collection relevant to social aspects. LPA's original comment was referring to data collection relevant to both environmental and social aspect. No data confirmations with CAS, MOE (different departments), CNRS (NCMS + RS) were yet undertaken. |
|     |                                  |      | The section doesn't mention that the report was put online for consultation.   | Text added to Scoping Report to note that Rev 0 was available online for consultation (see Section 1.3.2)   | - Comment Noted  |
| 38. | Table 5.2                        | 76   | - MOE was not recognized as stakeholder. Please clarify  | The omission of the MoE in the scoping study list was an error and has been rectified. MOE are recognized as key stakeholders as the  | <ul> <li>It is mentioned that stakeholder<br/>analysis was conducted along with the<br/>methodology (impact of project,<br/>influence on project, and interest in<br/>project). However, the results of this</li> </ul>  |

No: QHSE-19-007

Rev: 2



| No. | Section | Page | LPA Comment - Draft report<br>(04 June 2019)   | TOTAL Response<br>(15 July 2019)   | LPA Comment - Final Report<br>(18 July 2019)  |
|-----|---------|------|--|--|---|
|     |         |      | <ul> <li>Academia was not recognized as stakeholder. Please clarify</li> <li>The stakeholder list was not prioritized for Block 4. The justification of stakeholders was not apparent in the ESIA scoping or SEP. Some stakeholders were missed i.e. Bahr lubnan NGO, local social NGOs, divers</li> <li>The table shows only the type of meeting as 'joint ministers meeting' which is primarily targeted as raising awareness rather than feedback.</li> <li>Oddly, the engagement with only one entity (LOGI) was defined as one-to-one meeting. Please clarify and justify.</li> </ul> | regulator. That said, best international practices and TOTAL standards set out that stakeholder engagement shall respect that the regulator is independent. This ensures public confidence in the ESIA process and the objectivity of the regulator.  Stakeholders were identified in terms of impact, influence and interest. The selection of stakeholders is a dynamic process which continues throughout the ESIA and beyond. In terms of Academia NCMS and Lebanese Centre for Policy Studies were identified. Other Academic institutions such as the Balamand University and CMNS have been added to the stakeholder database consequent to the | analysis are not presented to illustrate how this influenced the stakeholder engagement process and the public participation process in general and stakeholder identification in particular. This has led to a mismatch of stakeholder groups to be consulted on environmental versus social issues.  It is expected to undertake engagement activities for each EIA/Block independently at all times as per EIA Decree requirements. Any deviation from this requirement should be agreed ahead of time with concerned authority  The updated SEP shall be submitted to the LPA for review. |

No: QHSE-19-007

Rev: 2



| No. | Section | Page | LPA Comment - Draft report<br>(04 June 2019)  | TOTAL Response<br>(15 July 2019)   | LPA Comment - Final Report<br>(18 July 2019) |
|-----|---------|------|---|--|--|
|     |         |      | It is mentioned that during stakeholder engagement meetings, the ESIA scoping results will be presented. This has to be amended as the stakeholder engagement meetings listed were undertaken and no ESIA results were presented. | stakeholder engagement held in May.  The stakeholder meetings were organized to be separate for Block 4 and Block 9, however due to an unexpected day of mourning, the separate meetings had to be held together. Identification of stakeholders is a dynamic process throughout the life of the EIA. New stakeholders will be continually added to the database including those suggested in this document.  Stakeholder engagement meetings intended to provide project description, ESIA information and was an opportunity for stakeholders to give feedback on the scoping report, raise concerns and questions relating to project information and any other |  |

No: QHSE-19-007

Rev: 2



| No. | Section | Page | LPA Comment - Draft report<br>(04 June 2019) | TOTAL Response<br>(15 July 2019)   | LPA Comment - Final Report<br>(18 July 2019)   |
|-----|---------|------|--|--|--|
|     |         |      |  | issues. The table has been updated to show the stakeholder and the day that the meeting took place. A separate database holds more detailed information about each stakeholder.  With regards to LOGI, this was an error and has been rectified. LOGI was invited to a joint NGOs meeting.  The stakeholder engagement meetings noted where the draft Scoping Reports could be found for download and review, while the Public Meeting presented Project Description, initial Baseline findings, the EIA process and |  |
|     |         |      |  | outlined the potential impacts.  |  |
| 39. | 5.3.1   |      |  |  | <ul> <li>Reference to Annex 3, it was noticed that invitations were disseminated at</li> </ul> |

No: QHSE-19-007

Rev: 2



| No. | Section | Page | LPA Comment - Draft report<br>(04 June 2019) | TOTAL Response<br>(15 July 2019) | LPA Comment - Final Report<br>(18 July 2019)   |
|-----|---------|------|--|----------------------------------|--|
|     |         |      |  |                                  | very short notice which led to a low participation turn-out during the engagement meetings  The report referred to meetings held in Arabic. This statement is not accurate. The PowerPoint presentations displayed during the engagement meetings were in English (with the exception of the last meeting). It is required that future engagement is conducted in Arabic using Arabic presentation materials with translation as needed. |
| 40. | 5.3.3   |      |  |                                  | - Evaluation of the engagement activities turnout should be included in the ESIA   |
| 41. | 5.5     |      |  |                                  | <ul> <li>Social development NGOs should be added to the civic society list</li> <li>ELARD is not considered under academia category but under private sector – environmental consultancy firm.</li> </ul>  |

No: QHSE-19-007

Rev: 2



| No. | Section                              | Page | LPA Comment - Draft report<br>(04 June 2019)  | TOTAL Response<br>(15 July 2019)   | LPA Comment - Final Report<br>(18 July 2019)  |
|-----|--------------------------------------|------|---|--|---|
| 42. | 6. Preliminary impact identification | 86   | <ul> <li>The scoping should elaborate more on the methodology proposed to identify and score impacts as well as approach to alternatives and provision of mitigation measures.</li> <li>The categories of impacts description followed the SEA methodology however it is important to note that the SEA is a strategic document and doesn't address sub-categories and project level details. The EIA is expected to handle impacts in a more focused and detailed approach with special attention to the project, location and identified alternatives.</li> <li>Feedback on methodology would be timely now to avoid misalignments and delays down the line.</li> <li>A number of impacts were not addressed e.g. the plugging and abandonment, well testing, liquid mud plant</li> </ul> | Additional information on the EIA methodology has been added to the Scoping Report (see Section 7.3.5)  More detailed information on the methodology will be included in the EIA.  The EIA will include all potential sub-categories of impact from project level activities, and will present a discussion of alternatives.he EIA methodology will be in line with Decree No. 8633 (2012) Fundamentals of Environmental Impact Assessment.  All project activities which have the potential to create impacts to environmental or social components will be reviewed and assessed in the EIA. | - Additional information related to the methodology is expected in the ESIA  - Comments Noted |

No: QHSE-19-007

Rev: 2



| No. | Section   | Page  | LPA Comment - Draft report<br>(04 June 2019)   | TOTAL Response<br>(15 July 2019)   | LPA Comment - Final Report<br>(18 July 2019)   |
|-----|-----------|-------|--|--|--|
| 43. | Table 6.1 | 89-90 | <ul> <li>In pages 89 and 90, that matrix<br/>misses to include the seawater<br/>quality as VEC.</li> </ul>   | Water quality added into the list of VECs (See Table 6.1).   | - Changes Noted  |
|     |           |       | <ul> <li>In page 89, please recheck and justify<br/>why there are no foreseen potential<br/>impacts from offshore storage of<br/>chemicals.</li> </ul>   | The offshore storage of chemicals will be reconsidered, however with IMDG regulations in place, it is not considered that the planned event of chemical storage will cause an impact to any of the VECs. | <ul> <li>In page 97, please recheck and justify<br/>why there are no foreseen potential<br/>impacts from offshore storage of<br/>chemicals.</li> </ul>   |
|     |           |       | <ul> <li>In page 90, the potential impact of<br/>oil spills and fuel spills on terrestrial<br/>ecology and archeology was missed.</li> <li>In table 6.1, it was observed that the VEC:<br/>social conditions was removed. Please clarify<br/>where this impact is captured.</li> </ul> | A potential unplanned event of a spill may have an impact and is included in 'Accidental events'. All potential impacts connected with the oil spill will be addressed in the OSCP.                      | <ul> <li>The matrices represent a summary of affected VECs per activity however there is no discussion, analysis or supporting justification about the activity affecting a particular VEC. The rationale behind the matrix, albeit stemming from the SEA, is not explained.</li> <li>Please note that the impact on terrestrial habitats and archeological resources is not identified for the onshore related activity i.e. chemicals</li> </ul> |

No: QHSE-19-007

Rev: 2



| No. | Section                            | Page | LPA Comment - Draft report<br>(04 June 2019)   | TOTAL Response<br>(15 July 2019)  | LPA Comment - Final Report<br>(18 July 2019)  |
|-----|------------------------------------|------|--|---|---|
|     |                                    |      |  | The social conditions VEC has been added to Table 6.1.  | transportation by land; chemical storage onshore.  There is a discrepancy in the socio-economic VCs listed in table 6.1 and those identified in section 4.4.17 which creates a big confusion regarding the methodology of selection of these VCs. |
| 44. | 6.5 unplanned events               | 93   | It is not clear whether unplanned events will include major accident hazards. It is important that the EIA scoping recognize major accident to the environment (MATTE) and elaborate on process to identify and mitigate including arrangements for environmental contingencies. | unplanned events will be included in the EIA, with clarity on major accident to the environment. Mitigation | Comment Noted   |
| 45. | 7.2 project description            | 94   | The project description should also mention relief well.   | The project description now includes mention of the relief well (see Section 3.2.3)                         | Relief wells were mentioned briefly. A full description is expected in the ESIA   |
| 46. | 7.4.1 Drilling discharges modeling | 98   | Please clarify the <u>scope</u> of the dispersion modeling as well as the <u>scenarios</u> to be simulated:  - Please clarify whether the proposed WBM discharges of the open section will be modeled.   | updated to include more details about the model to be   | Comment Noted   |

No: QHSE-19-007

Rev: 2



| No. | Section | Page | LPA Comment - Draft report<br>(04 June 2019)  | TOTAL Response<br>(15 July 2019)                            | LPA Comment - Final Report<br>(18 July 2019) |
|-----|---------|------|---|---|--|
|     |         |      | - It is mentioned that the model for cuttings will run for 45 days. Please clarify whether this accounts for the accumulating continuous discharges or a one-time discharge will be run for 45 days. If so, would such scenario be representative?  Please justify the selection of the models as well as the limitations of the model be included.  Please clarify the type of results expected (i.e. plume, area of impact, concentrationetc) | The results will be included as an appendix to the EIA.     |  |
| 47. | 7.4.2   | 98   | A variant of a well blow out scenario with small amounts of condensate will be considered as worst case credible scenario. It is important that a worst case oil spill scenario is also considered.  Please clarify what is mean by 'credible'  | not yet been confirmed, they will be fully justified within | - Comment Noted - Comment Noted              |

No: QHSE-19-007

Rev: 2



| No. Section Pa | age | LPA Comment - Draft report<br>(04 June 2019) | TOTAL Response<br>(15 July 2019)  | LPA Comment - Final Report<br>(18 July 2019) |
|----------------|-----|--|---|--|
|                |     |  | exploration and discoveries in the region give confidence that a modelling scenario of a blow-out from an oil-bearing reservoir would not be necessary.  Worst credible case, or most credible worst case or equivalent: the most severe consequences, considering all scenarios and their outcomes that is considered reasonably believable. The concept is used internationally used (if there is no contradicting regulatory requirement), to identify realistic worst case scenarios and exclude very unrealistic ones. The rationale is that it is better to develop a robust response to credible (and more probable) scenarios than a purely theoretical response to unrealistic disastrous scenarios. |  |

No: QHSE-19-007

Rev: 2



| No. | Section    | Page | LPA Comment - Draft report<br>(04 June 2019) | TOTAL Response<br>(15 July 2019) | LPA Comment - Final Report<br>(18 July 2019)   |
|-----|------------|------|--|----------------------------------|--|
| 48. | Appendix 1 |      |  |                                  | <ul> <li>Academia was recognized as stakeholder but was not invited to any consultation</li> <li>The stakeholder list was not prioritized for Block 4. The justification of stakeholders was not apparent in the ESIA scoping or SEP. Some stakeholders were missed i.e. Bahr lubnan NGO, local social NGOs, divers</li> </ul> |
| 49. | Appendix 6 |      |  |                                  | <ul> <li>The minutes of the meeting are not<br/>accurate. This is a critical issue in terms<br/>of transparency and capturing all<br/>discussions.</li> </ul>  |





[This page has intentionally been left blank.]

### **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 3.1 Standards and Regulations

80754









[This page has intentionally been left blank.]

The section below sets out the national regulations and guidelines. TOTAL policies with which the stakeholder engagement process is aligned are also outlined.

#### National legal requirements

According to Lebanese law, public consultation sessions are required as part of the EIA process. These should be held at two stages: one during the scoping phase and the second during the EIA disclosure phase. An advertisement should be placed in two official newspapers, 20 working days prior to the public consultation meeting. The concerned municipality should place another advertisement on its bulletin board and at the Project site for 20 working days. The proposed project and the potential impacts expected to arise during the construction and operation phases of the Project, along with the mitigation measures, should be presented in each consultation session.

The procedure for both the scoping and the EIA disclosure sessions is similar, although the content of the presentation and the level of detail are greater and more focused in the EIA disclosure phase. Attendees should be given the opportunity to voice their concerns in both sessions.

Key national regulations relevant to stakeholder engagement include:

- Decree no 8633 of 2012 "Fundamentals of Environmental Impact Assessment"
- MOE Decision 261/1 of 2015: review process for EIA scoping and EIA reports
- Environment Law 444/2002:
  - Public Participation Principle which ensures that all citizens have the right to free access of national environmental information, and have the duty of notifying any environmental risk occurring
  - Cooperation Principle which requires the cooperation between public and local authorities and citizens to ensure the protection and conservation of the environment on all levels.
  - Fundamental principles and public rules
  - o Organization of environmental protection
  - Environmental information system and participation in the management and protection of the environment
  - o Environmental Impact Assessment
  - o IEE
  - Protection of environment media
  - Responsibilities and fines

# **EIA guidelines** (Sector-specific guidelines for oil and gas reconnaissance and exploration drilling activities in Lebanon, 2019)

#### 3.3.3 Public participation

Stakeholder engagement is an integral part of the EIA process that starts during scoping and continues throughout the EIA process and project implementation and beyond.

The proponent should provide a stakeholder engagement plan (SEP) for the scoping phase to ensure that consultations are aimed at informing the stakeholders about the project, receiving their issues and concerns, identifying their potential for being involved in the EIA, and receiving their input into the scope of work for the EIA.

The SEP should outline activities specific for each group of stakeholders in terms of type of engagement (public meeting, workshop, bilateral meetings, focus groups, etc.,) types of materials required (PowerPoint presentations, brochures, non-technical summaries of the

EIA report etc.) the language used (English and/or Arabic), and type of information to be conveyed. It should include information such as the list of stakeholders, roles as for example who is coordinating and leading public meetings, and formal grievance mechanisms enabling stakeholders to voice concerns and get them addressed in a timely and effective manner. It should also include data recording and management strategy (systems to log all consultations undertaken and systems for documenting and sharing minutes from meetings), budget, timeline and organisational logistics. The SEP should also define the means of dissemination of the draft report for consultation (electronic and/or paper copies, etc.) and advertising (newspaper, broadcasting, etc.).

The project proponent should identify the stakeholders to be consulted in close coordination with the MOE and LPA in the early scoping stage. Annex 5 of the EIA Decree provides an overview of potential stakeholders, which needs to be tailored to the project specifics and the project's area of influence. Appendix A of these Guidelines provides an example list of stakeholders potentially relevant. The SEP for this and subsequent stages of consultation should be submitted to the LPA and MOE for approval.

A stakeholder analysis should be undertaken to consider:

- Identification of different types of stakeholders such as relevant ministries, local authorities (including governorates and municipalities), businesses, academic institutions, NGOs, project affected communities (PACs), project-affected parties (PAPs, such as professional associations & syndicates of divers and fishermen, tourism operators and women)
- Analysis of PAP-specific impacts from the project and potential PAP influences over the project. This will enable the identification of vulnerable people (such as artisanal fishermen) who may be more severely impacted by project activities and less prepared to deal with impacts, as well as PAPs who may have an important role to play in the project and should be prioritised in the stakeholder engagement.

The overall process for scoping consultations should be as follows:

- The Proponent should arrange consultation meetings with stakeholders as defined and agreed upon in the SEP. At least one general public meeting shall be held, to which all relevant stakeholders shall be invited.
- Once the draft Scoping Report is sufficiently advanced, the proponent should publish
  it on its company website and solicit comments from the general public and from
  public authorities (see also Figure 3.1).
- The proponent should advertise the draft Scoping Report, as appropriate to the
  project context, to inform the general public about the initiated EIA process as early
  as possible. The advertisement will include information that an EIA is required for the
  project and feedback is sought from the public, it will also provide information about
  how such feedback can be provided and will include the date and location of the
  planned general public meeting(s).
- The proponent should send out invitation letters to the relevant authorities specified in the SEP, and provide proof that these letters were registered by their destined invitees at least 15 days before the date of the general public meeting(s). The

invitations should include a brief of the project and a referral to the draft Scoping Report published on the company website.

- The LPA may issue a letter of information to relevant governmental entities to encourage their involvement in the EIA process and their participation in the general public meeting planned by the proponent.
- In accordance with the EIA Decree, feedback by the public can be submitted within
  a period of one month once the project is advertised. Feedback should be submitted
  to the proponent who will provide an automatic transfer to the LPA and MOE. The
  means for submitting feedback to the proponent (e.g. via the company website, in
  writing, etc.) will be defined on the company website, in the proponent invitation
  letters, and in the LPA information letters.
- General public meetings shall be announced at least 15 days before being held. In addition, the meetings shall be held at least 10 days before the receipt of the scoping report by the MOE.
- All stakeholder feedback received within the one-month consultation period will be considered in the updated scoping report, before submission to LPA. Any feedback received beyond this period, based on its type and content, will be considered for incorporation in the EIA report.
- The proponent will submit the updated scoping report for a first round of review by the LPA prior to submission to the MOE through the LPA. It is also important to note the potential that:
  - The LPA might engage other Ministries in the review process such as the MOSA, MOC, etc.
  - The proponent might need to update the scoping report based on comments received from the LPA prior to submission to the MOE through the LPA.
- The final scoping report will be published on the LPA website.

The scoping report should include a summary of the main concerns raised by stakeholders. The MOE/LPA requires minutes of meetings, with a signed attendance list, to be attached to the scoping report. The consultant should also include a register highlighting which stakeholders' comments were addressed and a justification why others weren't addressed.

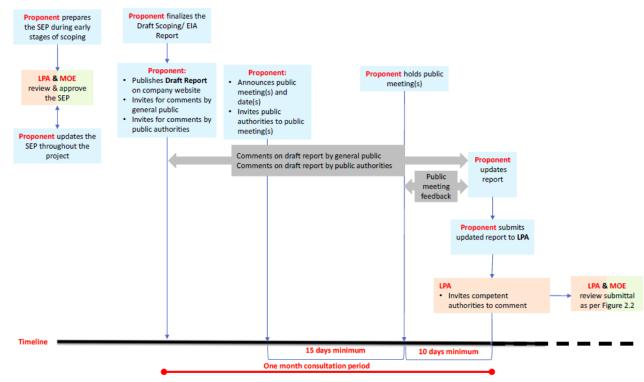


Figure 3.1 Process for SEP approval and receiving stakeholder feedback for the draft scoping/EIA report

Eureka Energy
Sector-specific EIA guidelines for oil and gas reconnaissance and exploration drilling activities in Lebanon

28

#### 3.3.7.2 Public participation

In this section, the proponent should describe its approach to public participation during the project. Stakeholder consultation is an integral part of the EIA, hence the scoping phase SEP should be updated and tailored to the key EIA phases, considering lessons learnt from the scoping phase and following the general SEP guidelines outlined in Section 3.3.3:

- Baseline and impact assessment phases: which aims at discussing impacts with stakeholders.
- EIA report-back phase: which aims at informing stakeholders about the outcome
  of the EIA and receiving their comments.

The stakeholder analysis started during scoping should be elaborated further and include:

- Identification of different types of stakeholders such as relevant ministries, local
  authorities (including governorates and municipalities), businesses, academic
  institutions, NGOs, project affected communities (PACs), project-affected parties
  (PAPs), such as professional associations and syndicates of divers and
  fishermen, tourism operators and women).
- Analysis of PAP-specific impacts from the project and potential PAP influences over the project. This will enable the identification of vulnerable people (such as artisanal fishermen) who may be more severely impacted by project activities and less equipped to deal with impacts, as well as PAPs who may have an important
  - role to play in the project and should be prioritised in the stakeholder engagement.

Overall, EIA stakeholder engagement should serve to:

- ensure that stakeholder issues are addressed in the EIA
- assess stakeholders' expectations to enable the proponent to develop an expectation management strategy (i.e., seismic surveys do not have large potential for employment or local business involvement). Clear explanation of the proposed activities, spatial extent and timelines are important to manage expectations
- assess stakeholders' capacity to be involved in the project in terms of labour and supply capacity. This information will provide vital information for assessing positive socio-economic impacts and should be incorporated into the impact assessment and social management plan.

The stakeholder engagement process should include a culturally appropriate grievance mechanism that enables stakeholders to voice comments and grievances, e.g. complaints regarding incomplete information, unfair or discriminating treatment, etc., which should be addressed in a timely fashion throughout the EIA process.

The records of stakeholder engagement activities (minutes, signed attendance sheets, photos of meetings and grievances) should be captured in a database/log, which will allow issues (what was said by stakeholder) and responses (who and what was responded) to be tracked and appropriately addressed, rendering the stakeholder engagement process transparent.

Stakeholder engagement activities should include discussion with PAPs of unplanned events (spills, etc.) and community health and safety plans. For instance, spill control plans should be discussed with fishermen.

#### 3.4.2 Public participation

The overall stakeholder engagement plan (SEP) developed during the scoping phase should be updated with a focus on stakeholder engagement activities for each of the EIA phases, i.e.:

- Baseline and impact assessment phases: which aims at discussing impacts with stakeholders
- EIA report-back phase: which aims at informing stakeholders about the outcome
  of the EIA and receiving their comments.

Public consultation is an integral part of the EIA as per Annex 8 of the EIA Decree and it is good practice to consult on the draft EIA report in order to present the consultation results in the EIA submitted to the MOE and use any concerns/issues raised to amend the report, and mitigation and management measures if needed. For this purpose, information on cost, such as for implementation of the EMP or EMoP should be provided separately to the MOE/LPA as confidential financial information should not be published.

Consultations on the draft EIA report should focus on ensuring that participants understand the content of the EIA and generally accept the validity of the findings of the EIA process, the resulting impact assessment and the identification of mitigation and management measures. As described in the SEP for the EIA phase, a mix of public meetings, workshops with key stakeholder groups and one-on-one meetings with key stakeholders should be used, as needed. In addition, the grievance mechanism should be clearly described to enable stakeholders to voice comments or grievances at any time via established channels for efficient grievance resolution as grievances may already come up during the EIA phase, e.g. complaints regarding incomplete information, unfair or discriminating treatment, etc.

The overall process for EIA consultations should be as follows:

- The Proponent should arrange consultation meetings with stakeholders as defined and agreed upon in the SEP. At least one general public meeting shall be held, to which all relevant stakeholders shall be invited.
- Once the draft EIA report is sufficiently advanced, the proponent should publish
  it on its company website and solicit comments from the general public and from
  public authorities (see also Figure 3.1).
- The proponent should advertise the draft EIA report, as appropriate to the project context, to inform the general public about the results of the impact assessment and receive stakeholder feedback. The advertisement will include information that the draft EIA has been posted on the company website for stakeholder review and feedback, it will also provide information about how such feedback can be provided and will include the date and location of the planned general public meeting(s).
- The proponent should send out invitation letters to the relevant authorities specified in the SEP, including those who commented on the scoping report, and provide proof that these letters were registered by their destined invitees at least

15 days before the date of the general public meeting(s). The invitations should include a brief of the project and a referral to the draft EIA report published on the company website.

- The LPA may issue a letter of information to relevant governmental entities to encourage their participation in the general public meeting planned by the proponent.
- In accordance with the EIA Decree, feedback by the public can be submitted
  within a period of one month once the project is advertised. Feedback should be
  submitted to the proponent who will provide an automatic transfer to the LPA and
  MOE. The means for submitting feedback to the proponent (e.g. via the company
  website, in writing, etc.) will be defined on the company website, in the proponent
  invitation letters, and in the LPA information letters.
- General public meetings shall be announced at least 15 days before being held.
   In addition, the meetings shall be held at least 10 days before the receipt of the scoping report by the MOE.
- All stakeholder feedback received within the one-month consultation period will be considered in the updated EIA report, before submission to LPA.
- The proponent will submit the updated EIA report for a first round of review by the LPA. It is also important to note the potential that:
  - The LPA might engage other Ministries in the review process such as the MOSA, MOC, etc.
  - The proponent might need to update the EIA report based on comments received from the LPA prior to submission to the MOE through the LPA.
- The final EIA report will be published on the LPA website.

The EIA report should include a description of the consultation process and a summary of the main findings and concerns raised by stakeholders during the scoping and EIA phase. Formal meetings should be minuted and should include a signed list of attendees. The MOE/LPA requires minutes of meetings, with a signed attendance list, to be attached to the EIA. This should also include the information provided by the MOE and the LPA as part of the official consultation process. The consultant should also include a register highlighting which stakeholders' comments were addressed and a justification why others weren't addressed.

Disclosure shall respect provisions of Petroleum Activity Regulation Article 154 and EPA Article 35 regarding confidentiality of information and shall take into consideration Article 10 in Law 84/2018 (Transparency in the Petroleum Sector) and Article 14 in Law 444/2002.

The final EIA in English language, including a Non-Technical Summary in English and Arabic, should be made publicly available through the same channels as the draft report.

### **TOTAL** corporate policy

TOTAL states that dialogue and engagement with stakeholders is one of the central pillars of the Group's policy and an essential part of any ESIA. Stakeholder engagement must be executed according to the following principles:

- Open and Transparent: All information should be open and transparent to stakeholders unless legitimate reasons for commercial confidentiality or the protection of stakeholders require that it be kept confidential.
- Listening: Stakeholders are listened to, their concerns taken seriously, and responses provided where so required e.g. on the management of human rights risks or if there is a factual misperception.
- Participation: Stakeholders are invited and encouraged to actively participate in the Project as it concerns them.
- *Proactive*: Potential risks are communicated proactively and not only reactively with stakeholders, in particular where stakeholders may be unaware of a particular risk.
- Impact-focused: Engagement with stakeholders is focused around the potential and actual negative impacts that may concern them in relation to the Project.
- Safe Participation: Any stakeholder that participates in any form of engagement should be participating in a safe and protected manner, meaning without risk or fear for retaliation by anyone.
- Effectiveness: Information and forms of engagement are effective to the individuals for whose use they were intended. Information and forms of engagement should be accessible, legitimate, transparent and human rights-compatible.
- Appropriate form of engagement. Different forms of engagement may be required for different purposes. For example, sometimes communication is sufficient, but other times consultation, deeper engagement, full approval or consent is required.
- Empowerment: Engagement empowers stakeholders to make their voices heard.
- Equal and respectful: Everyone, without any discrimination, has the right to participate on equal terms.

## **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 3.2 Stakeholder Analysis

80754









[This page has intentionally been left blank.]

**Note**: stakeholder identification and analysis is not exhaustive and is ongoing throughout the EIA process.

Stakeholder engagement is an ongoing process. Each Project requires a certain level of frequency, and tailored methods and messages applied for its stakeholders depending on the specific stage of the project implementation. Engagement needs to be proportionate to the level of proposed project activities. The below table outlines engagement methods relevant for the EIA phase of this project, which precedes regulatory approval. It is also important for the stakeholder engagement process to be specific and focused on stakeholder analysis relevant for each project phase. The process was carried out as a collaborative exercise. Once the analysis was carried out, the mapping of each stakeholder was done. At local level, stakeholder categories were mapped collectively. The detailed mapping results are an internal document of the Project proponent, which reflects Company's understanding of external risks affecting their commercial decisions. It is important to note that list of stakeholders, as well as frequency and methods of engagement, may change as the Project progresses from pre-approval phase to execution and completion. For example, 'keep informed' stakeholder engagement method can change to 'collaborate' as the Project moves from baseline data collection to implementation of social and environmental management plans. It should be noted that the stakeholder analysis, to a certain extent, is subjective, depending on personal experience with different stakeholders. To reduce subjectivity in analysing stakeholders, the process was carried out as a collaborative exercise.

| Stakeholder                                | Area of Interest, Impact and Influence  | Level and methods of engagement during the EIA  | Materials to be Used during the EIA  |
|--|---|---|--|
| Authorities  Ministry of Environment (MOE) | <ul> <li>Regulator, (involved in EIA permitting), independent and impartial.</li> <li>Under scrutiny by public (especially NGOs). Influence on EIA process.</li> </ul>  | Collaborate  Letters, emails and phone calls.  Workshops/discussion groups.  One-to-one meeting.  Teleconferences.  Ad-hoc encounters.  | Scoping phase PowerPoint Presentation with slides relating to Project description and the EIA BID EIA phase PowerPoint Presentation with slides on the impact assessment NTS |
| Lebanese Petroleum<br>Administration (LPA) | <ul> <li>An independent public institution mandated to manage the upstream offshore petroleum sector.</li> <li>Regulator (involved in EIA permitting)</li> <li>Under scrutiny from the wider public (especially NGOs). Influence on EIA process.</li> </ul> | <ul> <li>Collaborate</li> <li>Letters, emails and phone calls.</li> <li>Workshops/ discussion groups.</li> <li>One-to-one meeting.</li> <li>Teleconferences.</li> <li>Ad-hoc encounters.</li> </ul> | Scoping Phase PowerPoint Presentation with slides relating to Project description and the EIA BID EIA phase PowerPoint Presentation with slides on the impact assessment NTS |

| Stakeholder   | Area of Interest, Impact and Influence   | Level and methods of engagement during the EIA  | Materials to be Used during the EIA  |
|---|--|---|--|
| Ministry of Energy and<br>Water (MOEW)  | <ul> <li>National regulatory authority. Management of power and water supply</li> <li>Overseeing Extractive Industries Transparency Initiative (EITI) implementation. Ensuring the Project is run in a transparent manner.</li> </ul>  | <ul> <li>One-to-one meeting.</li> <li>Keep informed</li> <li>Letters, emails and phone calls.</li> <li>One-to-one meeting.</li> </ul> | Scoping Phase PowerPoint Presentation with slides relating to Project description and the EIA BID NTS EIA phase PowerPoint Presentation with slides on the impact assessment |
| Ministry of Public Works and<br>Transport (MOPWT)-<br>Directorate General of Land<br>& Maritime Transport | <ul> <li>National regulatory authority. Public works and Transport (land and Maritime).</li> <li>Responsibility to inform passing vessels about where is a no-go zone.</li> <li>Ensuring safety for the Project.</li> </ul>  | Collaborate.  Letters, emails and phone calls.  One-on-one meeting.   | Scoping phase PowerPoint Presentation with slides relating to Project description and the EIA BID NTS EIA phase PowerPoint Presentation with slides on the impact assessment |
| Directorate General of Civil<br>Aviation-Meteorological<br>Department (DGCA)                              | <ul> <li>Management of aviation.</li> <li>Their interaction with Project is in relation to the use of international airport.</li> </ul>  | Letters, emails and phone calls.     One-on-one meeting.  | Scoping phase PowerPoint Presentation with slides relating to Project description and the EIA BID NTS EIA phase PowerPoint Presentation with slides on the impact assessment |
| Ministry of Culture (MOC)-<br>Directorate General of<br>Antiquities (DGA)                                 | <ul> <li>Protection and promotion of antiquities/ archaeology.</li> <li>Proprietors and caretakers of all sites of archaeological importance in the country.</li> <li>Interested in exploration activities and potential discovery of cultural heritage and safeguarding existing cultural heritage</li> </ul> | Collaborate.  Letters, emails and phone calls.  One-on-one meeting.   | Scoping phase PowerPoint Presentation with slides relating to Project description and the EIA BID NTS EIA phase PowerPoint Presentation with slides on the impact assessment |

| Stakeholder  | Area of Interest, Impact and Influence  | Level and methods of engagement during the EIA   | Materials to be Used during the EIA  |
|--|---|--|--|
| Ministry of Culture (MOC)-<br>Directorate General of<br>Cultural Affairs (DGCA)      | <ul> <li>Management of cultural heritage and antiquities. They are responsible for cultural affairs in the country.</li> <li>Need to ensure that the Project does not interfere with antiquities</li> </ul> | Letters, emails and phone calls.     One-on-one meeting.   | Scoping phase PowerPoint Presentation with slides relating to Project description and the EIA BID NTS EIA phase PowerPoint Presentation with slides on the impact assessment |
| Ministry of Agriculture-<br>Directorate of Fisheries and<br>Aquaculture              | <ul> <li>Management of fisheries and aquaculture.</li> <li>Managing the fishing activities in the area where the Project will be active</li> </ul>  | <ul> <li>Collaborate.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul>    | Scoping phase PowerPoint Presentation with slides relating to Project description and the EIA BID NTS EIA phase PowerPoint Presentation with slides on the impact assessment |
| Ministry of Economy and Trade  | <ul> <li>Economic development.</li> <li>Procurement opportunities. Foreign entities may be investing in Lebanon due to the oil and gas interest.</li> </ul>   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> | Scoping phase PowerPoint Presentation with slides relating to Project description and the EIA BID NTS EIA phase PowerPoint Presentation with slides on the impact assessment |
| Ministry of Interior and<br>Municipalities- General<br>Directorate of Civil Defence  | Emergency Response.     Responsible for MEDIVAC emergency response and may assist potential accidents caused by or encountered by the Project   | <ul> <li>Collaborate.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul>    | Scoping phase PowerPoint Presentation with slides relating to Project description and the EIA BID NTS EIA phase PowerPoint Presentation with slides on the impact assessment |
| Ministry of Interior and<br>Municipalities- General<br>Directorate of Municipalities | Responsible for management of municipalities and development at the governorate level. They have the  | <ul><li>Keep informed</li><li>Letters, emails and phone calls.</li></ul>                                   | Scoping phase PowerPoint Presentation with slides relating to Project description and the EIA  |

| Stakeholder  | Area of Interest, Impact and Influence   | Level and methods of engagement during the EIA  | Materials to be Used during the EIA   |
|--|--|---|---|
|  | <ul> <li>authority to make decisions, close restaurants etc., stop developments.</li> <li>Can sanction activities in the municipalities where the Project is active</li> </ul>   | Small group meeting.  | BID<br>NTS<br>EIA phase PowerPoint<br>Presentation with slides on the<br>impact assessment  |
| Ministry of Social Affairs-<br>General Directorate | <ul> <li>Provision of social protection and assistance.</li> <li>May monitor the Project in terms of potential involvement of vulnerable people in Project supply chain, or potential impacts on vulnerable people.</li> </ul>   | <ul> <li>Collaborate.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul>   | Scoping phase PowerPoint Presentation with slides relating to Project description and the EIA BID NTS EIA phase PowerPoint Presentation with slides on the impact assessment and with slides specific information/slides relating to socio-economic baseline studies. |
| Ministry of Justice                                | <ul> <li>All prosecutors come under the Ministry of Justice.         The MOJ is also involved in the public grievance mechanism.</li> <li>Involved in role of Environmental Prosecutor as well as in grievances. If stakeholder is not satisfied with TOTAL's grievance mechanism, they could approach the Ministry of Justice.</li> </ul> | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul> | Scoping phase PowerPoint Presentation with slides relating to Project description and the EIA BID NTS EIA phase PowerPoint Presentation with slides on the impact assessment and with slides specific to environmental issues.  |
| Ministry of Tourism-General<br>Directorate         | <ul> <li>Management and promotion of tourism.</li> <li>Tourism is one of the main pillars of the Lebanese economy. If operations led to a reduction in the number of visitors to tourist destinations, this could affect the Lebanese economy.</li> </ul>  | <ul> <li>Collaborate.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul>   | Scoping phase PowerPoint Presentation with slides relating to Project description and the EIA BID NTS EIA Phase PowerPoint Presentation with slides on the impact assessment and with   |

| Stakeholder   | Area of Interest, Impact and Influence   | Level and methods of engagement during the EIA  | Materials to be Used during the EIA  |
|---|--|---|--|
|   |  |   | specific information/slides relating to nature-based and adventure (coastal) tourism, and cultural tourism.  |
| Ministry of Industry                                      | <ul> <li>Promotes Industry.</li> <li>The Project is a contribution to the Lebanese Industry</li> <li>There is industry on the coast, primarily in the north of Beirut and in Chekka, Selata etc. This Ministry provides permits to all industrial enterprises. They might be interested in downstream activities and future plans. They are a stakeholder in case of worse-case scenario.</li> <li>The Ministry is related to industrial permitting (such as facilities for waste treatment) and classified establishments (warehouses) (governor of Beirut may also be involved for certain types of classified establishments licensing).</li> </ul> | Letters, emails and phone calls.     One-on-one meeting.  | Scoping phase PowerPoint Presentation with slides relating to Project description and the EIA EIA Phase PowerPoint Presentation with slides on the impact assessment BID NTS                       |
| Ministry of Public Health-<br>Directorate of Medical Care | <ul> <li>Management of health services; health and emergency response.</li> <li>The Project will use one approved hospital in Beirut or medivac employees as appropriate. They are a stakeholder in case of worse-case scenario (oil spill).</li> </ul>  | Collaborate.     Letters, emails and phone calls.     One-on-one meeting.                               | Scoping phase PowerPoint Presentation with slides relating to Project description and the EIA EIA Phase PowerPoint Presentation with slides on the impact assessment BID NTS                       |
| Ministry of Defence                                       | <ul> <li>They will be the entity who authorises helicopter use and movement.</li> <li>Ministry plays a role in marine movement through the provision of security clearances.</li> </ul>  | <ul> <li>Collaborate.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul> | Scoping phase PowerPoint Presentation with slides relating to Project description and the EIA BID NTS EIA Phase PowerPoint Presentation with slides on the impact assessment and with specific BID |

| Stakeholder                             | Area of Interest, Impact and Influence   | Level and methods of engagement during the EIA   | Materials to be Used during the EIA   |
|---|--|--|---|
| Ministry of Post and Telecommunications | <ul> <li>Responsible for telecommunications regulation.</li> <li>If telecommunications are affected in any way this could impact on Lebanon's communications.</li> <li>Project activities will not interfere with any existing or planned cables.</li> </ul>   | Collaborate.  Letters, emails and phone calls.  One-on-one meeting.  | NTS Scoping phase PowerPoint Presentation with slides relating to Project description and the EIA EIA Phase PowerPoint Presentation with slides on the impact assessment BID  |
| Ministry of Labor                       | <ul> <li>Provides oversight to work permits and authorisations.</li> <li>Project will require work permits for some employees. Permits are requisitioned which can provide a positive influence on the revenue of the Ministry.</li> </ul>   | Keep informed.  Letters, emails and phone calls.  Small group meeting.                                     | NTS Scoping phase PowerPoint Presentation with specific information/slides relating to Project description information. BID NTS EIA Phase PowerPoint Presentation with slides on the                                  |
| Ministry of Finance                     | <ul> <li>Management and oversight of fiscal stability, economic growth and social justice</li> <li>Imposing taxation charges on the Project</li> </ul>   | Collaborate.  Letters, emails and phone calls.  One-on-one meeting.  | impact assessment  Scoping phase PowerPoint Presentation with specific information/slides relating to Project description information. BID NTS EIA Phase PowerPoint Presentation with slides on the impact assessment |
| Disaster Risk Management<br>Unit        | <ul> <li>Multi-disciplinary unit established to institutionalise measures for disaster prevention, mitigation and preparedness.</li> <li>If there is a disaster, DRMU will be involved. TOTAL will engage with DRMU to prepare their risk management strategies. TOTAL will work with the unit in the event of a worse-case scenario.</li> </ul> | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> | Scoping phase PowerPoint Presentation with specific information/slides relating to Project description information. BID NTS   |

| Stakeholder                        | Area of Interest, Impact and Influence   | Level and methods of engagement during the EIA  | Materials to be Used during the EIA   |
|------------------------------------|--|---|---|
| Port authorities Port of<br>Beirut | <ul> <li>The project will invest in disaster risk capacity; strengthening disaster risk governance and preparedness for an effective response.</li> <li>Provision of port facilities for the Project.</li> <li>involved in the information of project activities location to the shipping lines</li> </ul> | Collaborate.  Letters, emails and phone calls.  One-on-one meeting.                                     | EIA Phase PowerPoint Presentation with slides on the impact assessment  Scoping phase PowerPoint Presentation with information on the Project and the EIA BID NTS EIA Phase PowerPoint Presentation with slides on the impact assessment and with specific information/slides relating to Project operations at Beirut Port/onshore logistics base requirements |
| Port security – ISF                | Responsible for security at the port.  | Collaborate.  Letters, emails and phone calls.  One-on-one meeting.                                     | Scoping phase PowerPoint Presentation with specific information/slides relating to Project description and the EIA BID NTS EIA Phase PowerPoint Presentation with slides on the impact assessment   |
| Lebanese Customs                   | <ul> <li>Customs and trade.</li> <li>Importing of Project related equipment will provide a revenue to the Customs. Stakeholder is key in ensuring goods pass through customs in a timely manner.</li> <li>Management of imports of chemicals and exports of waste.</li> </ul>                              | <ul> <li>Collaborate.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul> | Scoping phase PowerPoint Presentation with specific information/slides relating to Project description information. BID NTS EIA Phase PowerPoint Presentation with slides on the impact assessment  |
| Lebanese Army                      | The LAF is tasked with three missions including defence, security and development. It will be  | Collaborate.  | Scoping phase PowerPoint Presentation with specific   |

| Stakeholder  | Area of Interest, Impact and Influence   | Level and methods of engagement during the EIA  | Materials to be Used during the EIA   |
|--|--|---|---|
|  | instrumental in ensuring security for the Project is the need would arise.   | <ul> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul>                         | information/slides relating to Project description information. BID NTS EIA Phase PowerPoint Presentation with slides on the impact assessment  |
| Ministry of the Displaced.                                     | May monitor the Project in terms of potential involvement of vulnerable people in Project supply chain, or potential impacts on vulnerable people.   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul> | Scoping phase PowerPoint Presentation with slides on the Project and the EIA BID NTS EIA Phase PowerPoint Presentation with slides on the impact assessment with specific information/slides relating to Project description information and socio-economic baseline studies. |
| Lebanese Security Force,<br>Mol (Director general<br>security) | They are responsible for counter-terrorism, security issues, monitoring movements and passports. Their main responsibility is passports and permits (residency). Responsible for provision of visas. They could object to or oppose work permits needed for the project personnel. | <ul> <li>Collaborate.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul>   | Scoping phase PowerPoint Presentation with specific information/slides relating to Project description information. BID NTS EIA Phase PowerPoint Presentation with slides on the impact assessment  |
| Lebanese Army (Navy)   | The Navy are part of the Lebanese Army. Drill ship will need to provide location information to the Navy to avoid impact on naval manoeuvres. Navy is also a stakeholder in the event of a worst-case scenario.  | <ul> <li>Collaborate.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul>   | Scoping Phase PowerPoint Presentation with specific information/slides relating to Project description information. BID NTS   |

| Stakeholder   | Area of Interest, Impact and Influence  | Level and methods of engagement during the EIA   | Materials to be Used during the EIA   |
|---|---|--|---|
| CNRS (national council for scientific research)                       | <ul> <li>Public entity under the authority of the President of the Council of Ministers. They work with universities undertaking research. They have a partnership with PAU (France) (also the site of TOTAL's scientific research centre) which is EU funded.</li> <li>They conduct scientific marine research so are interested in the EIA studies. They have conducted surveys for sea water quality.</li> </ul> | Collaborate.  Letters, emails and phone calls.  One-on-one meeting.  | EIA Phase PowerPoint Presentation with slides on the impact assessment Scoping phase PowerPoint Presentation with specific information/slides relating to marine baseline studies and Project description. BID NTS EIA Phase PowerPoint Presentation with slides on the impact assessment |
| Central Administration of Statistics (CAS)                            | Research     They have data that may be of importance to the EIA  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul>  | Scoping phase PowerPoint Presentation with specific information/slides related to Project description and the EIA BID NTS EIA Phase PowerPoint Presentation with slides on the impact assessment  |
| Lebanese Centre for Policy Studies (LCPS)  Authorities (Municipality) | <ul> <li>Advocacy and research (including within oil sector, only). Think tank, not linked to government. Produces publications (governance and corruption in the oil and gas industry). NRGI (national research governance institute) EITI.</li> <li>They will report on the Project activities' transparency.</li> </ul>  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> | Scoping phase PowerPoint Presentation with specific information/slides relating to Project description information. BID NTS EIA Phase PowerPoint Presentation with slides on the impact assessment  |

| Stakeholder  | Area of Interest, Impact and Influence   | Level and methods of engagement during the EIA   | Materials to be Used during the EIA  |
|--|--|--|--|
| Governorate of Akkar (coastal municipalities only) | <ul> <li>Distant from project activities but still on the shoreline.<br/>Recently formed Governorate (10 years or so). Used<br/>to be part of North. Most of the Army are from Akkar.</li> <li>They may be affected by worst case scenario<br/>impacts.</li> </ul> | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   | BID. Scoping Phase Posters with information on the Project and the EIA process EIA phase posters with results of the impact assessment FAQ document. NTS |
| Municipality of Al-Kleiat,<br>Akkar                | Potentially impacted in worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |  |
| Municipality of Al-Mehamra,<br>Akkar               | Potentially impacted in worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |  |
| Municipality of Al-<br>Moukaiteh, Akkar            | Potentially impacted in worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |  |
| Municipality of Arida, Akkar                       | Potentially impacted in worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |  |
| Municipality of Bebnine,<br>Akkar                  | <ul> <li>Distant from project activities but still on the shoreline.         Very interested in the project.</li> <li>They may be affected by worst case scenario impacts</li> <li>Can influence or create negative perceptions on the Project.</li> </ul>         | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> <li>One-to-one meeting (KII with the mayor during baseline phase).</li> </ul> |  |
| Municipality of Cheikh<br>Zennad Tal Bibé, Akkar   | Potentially impacted in worse-case scenario.   | Keep informed.  • Letters, emails and phone calls.   |  |

| Stakeholder   | Area of Interest, Impact and Influence  | Level and methods of engagement during the EIA   | Materials to be Used during the EIA |
|---|---|--|-------------------------------------|
| Municipality of Kobbet Bchamra, Akkar  Governorate of North | Potentially impacted in worse-case scenario.      Tripoli is important (seat of the Governorate). Second  | <ul> <li>Small group meeting.</li> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> <li>Keep informed.</li> </ul>                   |                                     |
| Lebanon   | city in Lebanon and second largest port. Block 4 is closer to them than to Beirut.  Palm islands nature reserve faces Al Mina. Fisheries sector strong. Project could have potential negative impacts to tourism and fishing livelihoods in a worse-case scenario.  Can influence or create negative perceptions on the project.  Economic and social development at the local level. | <ul> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> <li>One-to-one meeting (KII with the mayor during baseline phase).</li> </ul>                         |                                     |
| Municipality of Bhanine,<br>North Lebanon                   | Potentially impacted in worse-case scenario.  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |                                     |
| Municipality of Al Mina,<br>North Lebanon                   | <ul> <li>Palm island is an important marine tourist site off shore. Palm islands nature reserve faces Al Mina. If this location was compromised this would have implications for the tourist sector.</li> <li>Economic and social development at the local level.</li> </ul>  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> <li>One-to-one meeting (KII with the mayor during baseline phase).</li> </ul> |                                     |
| Municipality of Al Minieh,<br>North Lebanon                 | Potentially impacted in worse-case scenario.  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |                                     |
| Municipality of Deir Ammar,<br>North Lebanon                | Potentially impacted in worse-case scenario.  | Keep informed.   |                                     |

| Stakeholder                                       | Area of Interest, Impact and Influence   | Level and methods of engagement during the EIA   | Materials to be Used during the EIA |
|---|--|--|-------------------------------------|
|   |  | <ul><li>Letters, emails and phone calls.</li><li>Small group meeting.</li></ul>  |                                     |
| Municipality of Baddaoui,<br>North Lebanon        | Potentially impacted in worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |                                     |
| Municipality of Tripoli, North Lebanon            | Potentially impacted in worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |                                     |
| Municipality of Chekka,<br>Batroun, North Lebanon | <ul> <li>Economic and social development at the local level.</li> <li>Beautiful sand beaches, tourist service industry. If beaches would be affected by the Project this would have implications for these sectors.</li> </ul> | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> <li>One-to-one meeting (KII with the mayor during baseline</li> </ul> |                                     |
| Municipality of Selaata,<br>North Lebanon         | Potentially impacted in worse-case scenario.   | phase).  Keep informed.  Letters, emails and phone calls.  Small group meeting.  |                                     |
| Municipality of Koubba,<br>North Lebanon          | Potentially impacted in worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |                                     |
| Municipality of Batroun,<br>North Lebanon         | <ul> <li>Economic and social development at the local level.</li> <li>Beautiful sand beaches, tourist service industry. If beaches would be affected by the Project this would have implications for these sectors.</li> </ul> | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |                                     |

| Stakeholder                                  | Area of Interest, Impact and Influence              | Level and methods of engagement during the EIA   | Materials to be Used during the EIA |
|--|---|--|-------------------------------------|
|  |   | One-to-one meeting<br>(KII with the mayor<br>during baseline<br>phase).                                    |                                     |
| Municipality of Kafarabida,<br>North Lebanon | Potentially impacted in worse-case scenario.        | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> |                                     |
| Municipality of Koubayat,<br>North Lebanon   | Potentially impacted in worse-case scenario.        | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> |                                     |
| Municipality of Al-Mehamra,<br>Akkar         | Potentially impacted in worse-case scenario.        | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> |                                     |
| Municipality of Al-Hery,<br>North Lebanon    | Potentially impacted in worse-case scenario.        | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> |                                     |
| Municipality of Hamat, North<br>Lebanon      | Potentially impacted in worse-case scenario.        | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> |                                     |
| Municipality of Rass Maska,<br>North Lebanon | Potentially impacted in worse-case scenario.        | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> |                                     |
| Municipality of Thoum,<br>North Lebanon      | Potentially impacted in worse-case scenario.        | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> |                                     |
| Municipality of Anfeh, North Lebanon         | They may be affected by worst case scenario impacts | Keep informed.   |                                     |

| Stakeholder  | Area of Interest, Impact and Influence   | Level and methods of engagement during the EIA   | Materials to be Used during the EIA |
|--|--|--|-------------------------------------|
|  | <ul> <li>Can influence or create negative perceptions on the Project.</li> <li>Economic and social development at the local level.</li> </ul>  | <ul> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> <li>One-to-one meeting (KII with the mayor during baseline phase).</li> </ul>                         |                                     |
| Municipality of Qalamoun,<br>North Lebanon         | Potentially impacted in worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |                                     |
| Municipality of Al-Hraicheh,<br>North Lebanon      | Potentially impacted in worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |                                     |
| Governorate of Mount<br>Lebanon                    | <ul> <li>Economic and social development at the local level.</li> <li>Cultural heritage concentrated within this<br/>Governorate. If the Project would affect these that<br/>would have an impact on tourism.</li> <li>Can influence or create negative perceptions on the<br/>project.</li> </ul> | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> <li>One-to-one meeting (KII with the mayor during baseline phase).</li> </ul> |                                     |
| Municipality of Bouar,<br>Kesrouane, Mount Lebanon | Potentially impacted in worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |                                     |
| Municipality of Safra,<br>Kesrouane, Mount Lebanon | <ul> <li>Economic and social development at the local level.</li> <li>Potential impact on fishing community.</li> <li>Can influence or create negative perceptions on the project.</li> </ul>  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |                                     |

| Stakeholder  | Area of Interest, Impact and Influence  | Level and methods of engagement during the EIA   | Materials to be Used during the EIA |
|--|---|--|-------------------------------------|
|  |   | One-to-one meeting<br>(KII with the mayor<br>during baseline<br>phase).  |                                     |
| Municipality of Adma,<br>Kesrouane, Mount Lebanon            | Potentially impacted in worse-case scenario.  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |                                     |
| Municipality of Okiabe,<br>Kesrouane, Mount Lebanon          | Potentially impacted in worse-case scenario.  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |                                     |
| Municipality of Zouk<br>Mosbeh, Kesrouane, Mount<br>Lebanon  | Potentially impacted in worse-case scenario.  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |                                     |
| Municipality of Zouk<br>Mikhael, Kesrouane, Mount<br>Lebanon | Potentially impacted in worse-case scenario.  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |                                     |
| Municipality of Okaybeh,<br>Kesrouane, Mount Lebanon         | <ul> <li>Economic and social development at the local level.</li> <li>Artisanal fishing port. Project could impact on fishing.</li> <li>Can influence or create negative perceptions on the project.</li> </ul> | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> <li>One-to-one meeting (KII with the mayor during baseline phase).</li> </ul> |                                     |
| Municipality of Dbayeh,<br>Matn, Mount Lebanon               | <ul> <li>Economic and social development at the local level.</li> <li>Important marina and bay for anglers, walkers and people who roller skate, which could be impacted by the Project.</li> </ul>             | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |                                     |

| Stakeholder   | Area of Interest, Impact and Influence   | Level and methods of engagement during the EIA   | Materials to be Used during the EIA |
|---|--|--|-------------------------------------|
|   | Can influence or create negative perceptions on the project.   | <ul> <li>One-to-one meeting<br/>(KII with the mayor<br/>during baseline<br/>phase).</li> </ul>   |                                     |
| Municipality of Antelias,<br>Matn, Mount Lebanon        | Potentially impacted in worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |                                     |
| Municipality of Jal El-Dib,<br>Matn, Mount Lebanon      | Potentially impacted in worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |                                     |
| Municipality of Zalka, Matn,<br>Mount Lebanon           | Potentially impacted in worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |                                     |
| Municipality of Burj<br>hammoud, Matn, Mount<br>Lebanon | Potentially impacted in worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |                                     |
| Municipality of Beirut                                  | Potentially impacted in worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |                                     |
| Governorate of Beirut                                   | <ul> <li>Economic and social development at the local level.</li> <li>Concentration of population and national Government location.</li> <li>Project logistics base, hotel accommodation, port and airport to be used.</li> <li>Can influence or create negative perceptions on the project</li> <li>Involved for certain types of classified establishments licensing.</li> </ul> | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> <li>One-to-one meeting (KII with the mayor during baseline phase).</li> </ul> |                                     |

| Stakeholder                                      | Area of Interest, Impact and Influence   | Level and methods of engagement during the EIA   | Materials to be Used during the EIA |
|--|--|--|-------------------------------------|
| Municipality of Berbara,<br>Jbeil, Mount Lebanon | Potentially impacted in worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |                                     |
| Municipality of Aamchit,<br>Jbayl, Mount Lebanon | <ul> <li>Economic and social development at the local level.</li> <li>Artisanal fishing port. Potential negative impacts of the Project in a worse-case scenario.</li> <li>Can influence or create negative perceptions on the project.</li> </ul>   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> <li>One-to-one meeting (KII with the mayor during baseline phase).</li> </ul> |                                     |
| Municipality of Monsef,<br>Jbeil, Mount Lebanon  | Potentially impacted in worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>   |                                     |
| Municipality of Jbeil, Jbayl,<br>Mount Lebanon   | <ul> <li>Location with high cultural heritage importance. Important tourist destination centred on cultural heritage site. Famous fishing port marine which also serves to do marine tours.</li> <li>Economic and social development at the local level.</li> <li>Artisanal fishing port. Potential negative impacts of the Project in a worse-case scenario.</li> <li>Can influence or create negative perceptions on the project.</li> </ul> | <ul> <li>Collaborate.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> <li>One-to-one meeting (KII with the mayor during baseline phase).</li> </ul>   |                                     |
| Municipality of Fidar, Jbayl,<br>Mount Lebanon   | <ul> <li>Economic and social development at the local level.</li> <li>Can influence or create negative perceptions on the project.</li> </ul>  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> <li>One-to-one meeting (KII with the mayor during baseline phase).</li> </ul> |                                     |

| Stakeholder   | Area of Interest, Impact and Influence   | Level and methods of engagement during the EIA  | Materials to be Used during the EIA  |
|---|--|---|--|
| Municipality of Halet, Jbeil,<br>Mount Lebanon              | Potentially impacted in worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>  |  |
| Municipality of Naher<br>Ibrahim, Jbeil, Mount<br>Lebanon   | Potentially impacted in worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>  |  |
| Municipality of<br>Ghoubrayreh, Mount<br>Lebanon            | Potentially impacted in worse-case scenario.   | <ul><li>Keep informed.</li><li>Letters, emails and phone calls.</li><li>Small group meeting.</li></ul>  |  |
| Agencies  | 1  |   | 1 -  |
| Association of Travel and Tourist Agents in Lebanon         | <ul> <li>Develop and promote the travel and tourism sectors<br/>Influential in the sector.</li> <li>Archaeological sites, tourist sites are important for<br/>them and if these were compromised this would have<br/>implications for the sector.</li> </ul>   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>  | Scoping PowerPoint presentation with Project description information and overview of EIA process. BID NTS EIA PowerPoint with results of the impact assessment |
| National Socio-economic<br>Council                          | <ul> <li>Umbrella association of entities involved in economic development.</li> <li>Public-private entity representing all businesses (workers) in both public and private sector. This is the chamber, and the workers. They are new entity in Lebanon.</li> <li>Potential development of joint business.</li> </ul> | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> <li>information and awareness raising</li> </ul> |  |
| Federation of Chamber of agriculture, industry and Commerce | <ul> <li>Promote and improve business environment.</li> <li>Mandate purely focused on business. Politically influential. The head of the chamber is the minister of telecommunications.</li> </ul>   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>  |  |

| Stakeholder  | Area of Interest, Impact and Influence  | Level and methods of engagement during the EIA   | Materials to be Used during the EIA   |
|--|---|--|---|
| Association of Lebanese<br>Industrialist (ALI)                             | Promote industry. Represents the industries, many of which are located on the coast.  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> |   |
| Fishing Syndicates<br>(representatives from Akkar,<br>Tripoli and Jounieh) | Vulnerable group. Coastline users. Project could have potential negative impacts in a worse-case scenario worse-case scenario.  | <ul> <li>Collaborate.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul>    |   |
| Hotel owners syndicate   | <ul> <li>Develop and promote the travel and tourism sectors Influential in the sector.</li> <li>Archaeological sites, tourist sites are important for them and if these were compromised this would have implications for the sector.</li> <li>Project could have potential negative impacts in a worse-case scenario worse-case scenario.</li> </ul> | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting</li> </ul>  |   |
| Public transportation syndicate  | Project could have potential negative impacts in a worse-case scenario worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting</li> </ul>  |   |
| Divers Syndicate   | Project could have potential negative impacts in a worse-case scenario worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting</li> </ul>  |   |
| International Agencies   |   |  |   |
| United Nations Interim<br>Force in Lebanon (UNIFIL)                        | UN Peacekeeping Mission. Have an agreement with the Project (verbal agreement).   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> | Scoping PowerPoint presentation with Project description information and overview of EIA process. BID |

| Stakeholder   | Area of Interest, Impact and Influence   | Level and methods of engagement during the EIA   | Materials to be Used during the EIA  |
|---|--|--|--|
| United Nations Educational,<br>Scientific and Cultural<br>Organisation (UNESCO) | UNESCO (International organisations) world heritage<br>sites in Lebanon. Can provide funding, assistance<br>and oversight to the project.  | <ul> <li>Collaborate.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul>    | NTS EIA PowerPoint with results of the impact assessment   |
| United Nations High<br>Commissioner for Human<br>Rights (UNHCHR)                | <ul> <li>Human rights monitoring.</li> <li>International organisation provides development and protection to refugees/displaced Syrians and other vulnerable groups.</li> <li>May survey if the Project maintains human rights standards.</li> </ul>                 | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul>  |  |
| International Labour<br>Organisation (ILO)                                      | <ul> <li>International organisation provides labour standards, develop policies and devise programmes promoting work conditions for employees.</li> <li>Work closely internationally with TOTAL.</li> </ul>  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul>  |  |
| Civil Society   |  |  |  |
| Development for People and<br>Nature Association (DPNA)                         | <ul> <li>Environmental NGO.</li> <li>Promotes sustainable development for people and place.</li> <li>Aims to protect and promote the importance of natural environmental resources.</li> <li>Can influence or create negative perceptions on the Project.</li> </ul> | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul>  | Scoping PowerPoint presentation with Project description information and overview of EIA process. BID NTS EIA PowerPoint with results of the impact assessment |
| Eco-Movement organisation   | <ul> <li>Environmental NGO with capacity to mobilise members/supporters.</li> <li>Can influence or create negative perceptions on the Project.</li> </ul>  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> | Scoping PowerPoint presentation with Project description information and overview of EIA process. BID NTS  |
| The Lebanese Environment Party (NGOs)   | Environmental protection NGO. Vocal. Journalists, active on social media. Environmental advocacy.  | Keep informed.   | EIA PowerPoint with results of the impact assessment   |

| Stakeholder   | Area of Interest, Impact and Influence  | Level and methods of engagement during the EIA   | Materials to be Used during the EIA |
|---|---|--|-------------------------------------|
|   | Can influence or create negative perceptions on the Project.  | <ul> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul>                         |                                     |
| Lebanese Oil and Gas<br>Initiative (LOGI)                       | <ul> <li>Public awareness, policy development and advocacy to assist in maximising the economic and social benefits of oil and gas wealth. Local partner to Publish What You Pay.</li> <li>LOGI are well known in Lebanon. EITI and funded by Publish what you Pay (international NGO).</li> <li>Potential for Project to work with LOGI</li> </ul> | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> |                                     |
| Society for the protection of nature in Lebanon (SPNL)          | <ul> <li>National environmental NGO in Lebanon and local<br/>Partner of Bird Life (international NGO) protecting<br/>birds and biodiversity.</li> <li>Can influence or create negative perceptions on the<br/>Project.</li> </ul>   | Collaborate.     Letters, emails and phone calls.     One-on-one meeting.                                  |                                     |
| Green line  | <ul> <li>Environmental NGO active in the field of protecting the Lebanese coastline.</li> <li>Can influence or create negative perceptions on the Project.</li> </ul>   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> |                                     |
| Geoflint  | Environmental NGO.     Can influence or create negative perceptions on the Project  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> |                                     |
| International Union for the<br>Conservation of Nature<br>(IUCN) | <ul> <li>International association supporting local associations who explicitly work with Fishermen and maritime resources.</li> <li>Focuses on marine biodiversity. Scientific publications.</li> <li>Can provide information for the Project.</li> </ul>  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> |                                     |

| Stakeholder                      | Area of Interest, Impact and Influence  | Level and methods of engagement during the EIA   | Materials to be Used during the EIA |
|----------------------------------|---|--|-------------------------------------|
|                                  | Can influence or create negative perceptions on the<br>Project.   |  |                                     |
| Legal Agenda                     | <ul> <li>Human rights and policy development.</li> <li>Influential in human rights, particularly legal issues.         Legal protection and advice to workers. Defend         workers' rights and vulnerable population's rights.         Group/consortium of independent lawyers.</li> <li>May ensure that Total workers and contractors are         protected.</li> </ul> | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> |                                     |
| Nahnoo                           | <ul> <li>Advocacy, capacity building relating access to public space on coastal areas.</li> <li>Protection of public spaces, access to seaside/coastal areas. Funded by EU. They can access funds and act without funding.</li> <li>Can influence or create negative perceptions on the project.</li> </ul>   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> |                                     |
| Terre Liban                      | <ul> <li>Environmental NGO. Politically very active and very influential in relation to waste management. As yet, they do not appear to have an ideological position on oil and gas sector. Focus is mostly on municipal waste rather than hazardous.</li> <li>May monitor the Project's waste management.</li> </ul>   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> |                                     |
| Operation big Blue               | <ul> <li>Environmental NGO awareness raising of coastal areas.</li> <li>Non-militant environmental organisation. Hold the capacity to mobilise the population, especially the youth. Work on conservation of coastal and aquatic biodiversity. Can influence or create negative perceptions on the Project.</li> </ul>  | Keep informed.  • Letters, emails and phone calls. • Small group meeting.                                  |                                     |
| Arab NGO network for development | <ul> <li>Local partner for Human Rights Watch.</li> <li>TOTAL have an established relationship with this<br/>NGO beyond this project. The mandate is mainly<br/>centred on policy.</li> </ul>   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> |                                     |

| Stakeholder           | Area of Interest, Impact and Influence  | Level and methods of<br>engagement during the<br>EIA   | Materials to be Used during the EIA |
|-----------------------|---|--|-------------------------------------|
| Diaries of the oceans | <ul> <li>Environmental protection and coordination.</li> <li>Spreading awareness about ocean life and conservation campaigns using social media.</li> <li>Can influence or create negative perceptions on the Project.</li> </ul>   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> |                                     |
| Jouzour Loubnan       | <ul> <li>Environmental NGO. They plant mainly in arid regions with an aim of increasing woodland area in Lebanon by planting indigenous species to restore degraded high mountain ecosystems and develop wildlife habitats. They also empower the local community to protect manage promote and benefit from the projects and they promote environmental awareness of natural resources amongst the younger generation locals and officials.</li> <li>Can influence or create negative perceptions on the Project.</li> </ul> | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul>  |                                     |
| Green Orient          | <ul> <li>Small local environmental and development NGO in<br/>Baakline that aims to protect natural heritage through<br/>partner ships and towards a cleaner environment.</li> <li>Can influence or create negative perceptions on the<br/>Project.</li> </ul>  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul>  |                                     |
| Kulluna Irada         | <ul> <li>A political / economic initiative supporting young entrepreneurs and social entrepreneurship – No immediate stake in the Project.</li> <li>Can influence or create negative perceptions on the project.</li> </ul>   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul>  |                                     |
| OPES                  | NGO active in oil and gas sector.   | Keep informed.   |                                     |
| Beity Association     | <ul> <li>An NGO that aims to promote social, economic and cultural sustainable development in Lebanon through equality, direct services, enhancing the capacities of youth and women and encouraging volunteer work.</li> <li>May collaborate with the Project for community development project at later stages.</li> </ul>  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul>  |                                     |
| Inno Dev/Green Area   | Environmental NGO.  | Keep informed.   |                                     |

| Stakeholder | Area of Interest, Impact and Influence   | Level and methods of engagement during the EIA  | Materials to be Used during the EIA |
|-------------|--|---|-------------------------------------|
|             | Can influence or create negative perceptions on the project.   | <ul><li>Letters, emails and phone calls.</li><li>One-on-one meeting.</li></ul>                            |                                     |
| ALMEE       | <ul> <li>An energy and environment association involved in a wide range of activities related to sustainable practices and other green issues.</li> <li>Can influence or create negative perceptions on the project.</li> </ul>  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul> |                                     |
| LTA         | <ul> <li>Socio-economic/political anti-corruption NGO.         Transparency and governance involved in process transparency monitoring. It is the first Lebanese NGO that focuses on curbing corruption and promoting the principles of good governance.     </li> <li>May monitor the Project in terms of potential corruption.</li> <li>Can influence or create negative perceptions on the Project.</li> </ul>  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul> |                                     |
| Baldati     | <ul> <li>NGO that works closely with the municipality on projects and is known to have an excellent relationship with the Minister of Environment. Their mission is to gather and engage responsible people with good intentions and, socially interact to Design and Manage worldwide sustainable solutions for the communities, using innovative technologies that strive to improve culture and life standards NGO that aims to promote social, economic and cultural sustainable development in Lebanon through equality, direct services, enhancing the capacities of youth and women and encouraging volunteer work.</li> <li>May collaborate with the Project for community development project at later stages.</li> <li>Can influence or create negative perceptions on the Project.</li> </ul> | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul> |                                     |

| Stakeholder   | Area of Interest, Impact and Influence  | Level and methods of engagement during the EIA   | Materials to be Used during the EIA  |
|---|---|--|--|
| Common Space Initiative                                 | <ul> <li>Environmental advocacy NGO.</li> <li>Can influence or create negative perceptions on the Project.</li> </ul>   | <ul> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul>                          |  |
| CDC (Creativity<br>Development Centre)                  | <ul> <li>NGO that provides study and work orientation for young people.</li> <li>May collaborate with the Project for community development project at later stages.</li> </ul>   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul>  |  |
| Fenasol   | <ul> <li>The National Federation of Worker and Employee         Trade Unions in Lebanon and is relevant for workers'         rights.</li> <li>Can influence or create negative perceptions on the         Project.</li> </ul>   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>One-on-one meeting.</li> </ul>  |  |
| Palm island Natural Reserve (Tripoli)                   | <ul> <li>Environmental protection and preservation.         Independent but under patronage of ministry of environment.     </li> <li>The island may be impacted by the Project (worst case scenario).</li> <li>Can influence or create negative perceptions on the Project.</li> </ul> | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> |  |
| Green Square  | Can influence or create negative perceptions on the Project.  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>Small group meeting.</li> </ul> |  |
| Academia  |   |  |  |
| American University of Beirut (marine biology research) | Academia and research   | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>One-to-one meeting.</li> </ul>  | EIA Phase PowerPoint Presentation with slides on the impact assessment BID |
| Lebanese University                                     | Academia and research   | Keep informed.   | NTS  |

| Stakeholder              | Area of Interest, Impact and Influence   | Level and methods of engagement during the EIA  | Materials to be Used during the EIA  |
|--------------------------|--|---|--|
|                          |  | <ul><li>Letters, emails and phone calls.</li><li>One-to-one meeting.</li></ul>                            |  |
| Balamand University      | Academia and research  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>One-to-one meeting.</li> </ul> |  |
| AUB                      | Academia and research  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>One-to-one meeting.</li> </ul> |  |
| City University          | Academia and research  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>One-to-one meeting.</li> </ul> |  |
| USEK                     | Academia and research  | <ul> <li>Keep informed.</li> <li>Letters, emails and phone calls.</li> <li>One-to-one meeting.</li> </ul> |  |
| Potentially Affected Gro | oups   |   |  |
| Anglers                  | <ul> <li>Recreational fishing (angling) takes place all along the coast in the AOI of Block 4. It is carried out by people of different ages but predominantly men.</li> <li>They may be impacted by the Project activities (fishing grounds, boat collisions, oil spills).</li> </ul> | <ul> <li>Keep informed.</li> <li>Letters and phone calls.</li> <li>Small group meeting.</li> </ul>        | Posters outlining the Project and the EIA process BID NTS FAQ document. Posters showing the results of the |
| Fishermen                | <ul> <li>All fishermen are artisanal, with fishing being the main economic activity of the household.</li> <li>They may be impacted by the Project activities (fishing grounds, boat collisions, oil spills).</li> </ul>   | Collaborate. Letters and phone calls. Small group meeting.  | impact assessment.   |
| Fishing Household        | They may be impacted by the Project activities (fishing grounds, boat collisions, oil spills).   | Keep informed.  |  |

| Stakeholder                          | Area of Interest, Impact and Influence  | Level and methods of engagement during the EIA   | Materials to be Used during the EIA |
|--------------------------------------|---|--|-------------------------------------|
|                                      |   | <ul><li>Letters and phone calls.</li><li>Small group meeting.</li></ul>                            |                                     |
| Unemployed Youth (Male-<br>Female)   | Potential job opportunities.  | <ul> <li>Keep informed.</li> <li>Letters and phone calls.</li> <li>Small group meeting.</li> </ul> |                                     |
| Women                                | <ul> <li>They may be impacted by the Project activities (fishing grounds, boat collisions, oil spills).</li> <li>Potential job opportunities.</li> </ul>  | <ul> <li>Keep informed.</li> <li>Letters and phone calls.</li> <li>Small group meeting.</li> </ul> |                                     |
| Coastal farmers                      | <ul> <li>Intensive greenhouse farming takes place at few locations along the coastline.</li> <li>Not an immediate stakeholder as no activities along the coast line.</li> </ul>   | <ul> <li>Keep informed.</li> <li>Letters and phone calls.</li> <li>Small group meeting.</li> </ul> |                                     |
| Natural Resource Users               | Worm collectors, sand miners and rubbish collectors<br>on sea shore. Natural resource users are considered a<br>vulnerable category in the population as they often<br>have few alternative means to generate a livelihood.<br>Could be impacted by an oil spill. | <ul> <li>Monitor.</li> <li>Letters and phone calls.</li> <li>Small group meeting.</li> </ul>       |                                     |
| Business- Yacht and Boat<br>Services | Project could have potential negative impacts in a worse-case scenario worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters and phone calls.</li> <li>One-on-one meeting.</li> </ul>  |                                     |
| Business- Industry                   | Could be potentially impacted in worse-case scenario.   | <ul><li>Keep informed.</li><li>Letters and phone calls.</li></ul>                                  |                                     |

| Stakeholder                        | Area of Interest, Impact and Influence  | Level and methods of engagement during the EIA   | Materials to be Used during the EIA |
|------------------------------------|---|--|-------------------------------------|
| Business Restaurants               | <ul> <li>Coastal restaurants with views over the ocean.</li> <li>Their business could be negatively affected by people's perception that coastal views would be impacted.</li> </ul>  | <ul> <li>One-on-one meeting.</li> <li>Keep informed.</li> <li>Letters and phone calls.</li> <li>One-on-one meeting.</li> </ul> |                                     |
| Business- Fishermen<br>Cooperative | Coastline users. Project could have potential negative impacts in a worse-case scenario worse-case scenario.  | <ul> <li>Keep informed.</li> <li>Letters and phone calls.</li> <li>One-on-one meeting.</li> </ul>                              |                                     |
| Business- Traders and<br>Services  | Could be potentially impacted in worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters and phone calls.</li> <li>One-on-one meeting.</li> </ul>                              |                                     |
| Business- Beach Resort             | Beach resorts     Their business could be negatively affected by people's perception that coastal views would be impacted.  | <ul> <li>Keep informed.</li> <li>Letters and phone calls.</li> <li>One-on-one meeting.</li> </ul>                              |                                     |
| Business- Informal Business        | Could be potentially impacted in worse-case scenario.   | <ul> <li>Keep informed.</li> <li>Letters and phone calls.</li> <li>One-on-one meeting.</li> </ul>                              |                                     |
| Business- Hotels                   | <ul> <li>Coastal hotel resorts with views over the ocean and private beach facilities.</li> <li>Could be negatively affected by people's perception that coastal views would be impacted but also in a worse-case scenario, which could affect overseas tourists wanting to spend a vacation in the country.</li> </ul> | <ul> <li>Keep informed.</li> <li>Letters and phone calls.</li> <li>One-on-one meeting.</li> </ul>                              |                                     |

## **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 3.3 Newspaper Advertisements

80754









[This page has intentionally been left blank.]

## Scoping Phase Public Consultation Meeting

الدمدة ( في 2010 فعدد 2010 = اللَّكَــــبار





الإطلام الدورة المساولة المسا

الحرجات 161

حصيلة التضحيات أ عدون ساة 1996

146

يتذاول ميان العقودة الاسهاد سريب التعريف والتي التعريف والتي التعريف والتي التعريف والتي التعريف والتي التعريف من المدينة في المدينة التعريف المان المعاون والتعريف الميان المدينة التعريف المان المعاونة المعاون الى معوى مربح العدر على السنوي العملي، في خمسيدات القرن القمس. ربا على عمليات القدائيين مارتكاب الجارز ضدة القرى الفلسطينية.

يتربعب المجارة صد العرق المستودية والفضا في مواجهة الأردن ومصر الخصوصية قبل تتسم إما الاخطار الصدقة بلينيان لا تنطلق حصدراً من تمتع العدر بقدرات تدميرية ماثلة وتفوق يما بعدو بدرت ديور مناور كادولوجي وخسكري هاتل ولما ايضا من القسعاء التكريشي- البنان بما يعري العاد بالريحان على إنضاءه والتهاب-على للسنوى العملي لجات اسرائيل

على للسخوي المحلي لهدان الرائيل المدار الرائيل العلية معالى والبيغة معالى القليدية معالى المدارعة معالى المدارعة معالى والمدارعة المدارعة في المدالة المدارعة والمدارعة في المدالة المدارعة المدارعة في المدالة المدارعة ال

عليه جهور قبل كال عاما لمن العدر الإسرائيا قبل كال عاما لمن العدر الإسرائيا قبل كال عاما لمن العدر الإسرائيا قبل العالمة على إلف عملائيا إلاجها لقالمة على إلف عملائيا ويضع بشاء على المستحدة في المستحدة والمستحدة الإسرائيا القالمة التراز الجها المارية القالمة والمراز التراز الجها المارية القالمة المراز التراز الجها المارية القالمة المراز التراز الجها المارية التراز الجها المارية ال مناهيي في العقيدة أهمدكرية لعيش التعليات القرآن العالمية من دون العربة في المطات الناسيسية العن المناهي مريل المن المريز المام 1900. والتحسل 2006. والتحسل 2006. والتحسل 2006 ولمن المناهية المناهية المناهية من المناه المناهية ال

حزب الله من اسقاط «عناقيد الغضب»

الى اعادة انتاج عقيدة جيش العدو





سام 1997، عنوان حضائيد الخضية عام 1991، عنوان حضائيد الخضية عام 1990، ويعامر اليها في هيئة وزير الأمن المحال مريضاي لكن هذا المسار لم يُستكمل يسبب التحولات السياسية التي شهدتها المراتيل في حيثة السقالة

مقاومه ويشاعي لم حتر يسرعهل تستم به وتتكهف صفه إلا بعد أن تكتشف الهاقيون أقطالية فتناها ومعرفا عن الهنتات المبد الذي يقف بوجه أقماعها ومحدارات قدرض فهمنتها والولايات التجية على للطقة

Total ERP Libra SAL and its partners. Total ERP Libra SAL the operator, and rist partners fiel (exhaus SAL Libra SA

blequent EA study, his general meeting will be held on May 24, 2019, at the Rackson-otel, lendur, Serier (20:00-13:00), addition to the public participation meeting it is also possible a access the Scoring Reports and to precide comments unline at rew.nklebenon.com/letal/blocks-fend9/scoping-comments at rew.nklebenon.com/letal/blocks-fend9/scoping-comments

دعوة لحضور اجتماع مشاركة العامة للناقشة تقارير تحديد نطاق تقييم الأكر البش يات كحفر الإستكفافية التلفزجة في الرقح البحرية رقم 4 و 4 نياية عن Total . Liban SAL وشركاء.

. Aging 1649 (Alban SA.)

Seventh Labouron (Live Albanous) (Live Alban SA.)

Seventh Labouron (Live Albanous) (Live Alban SA.)

Albanous (Live Albanous) (Live Albanous) (Live Albanous) (Live Albanous)

Albanous (Live Albanous) (Live Albanous) (Live Albanous) (Live Albanous)

Albanous (Live Albanous) (Live Albanous) (Live Albanous) (Live Albanous)

Albanous (Live Albanous) (Live Albanous) (Live Albanous) (Live Albanous)

Albanous (Live Albanous) (Live Albanous) (Live Albanous) (Live Albanous)

Albanous (Live Albanous) (Live Albanous) (Live Albanous)

Albanous (Live Albanous) (Live Albanous)

Albanous (Live Al سير معاومتها في دواسة تشهيع الأثر البيلي القليمة سيعان عدا الاحسان العام في ٢٠ ايار ٧ فيداني راويسون ، فيران بويون من السلط العائبة سياماً حتى الساعة الواصة طهراً. ع. امينياع مشاركة العامد يشتكم أيضاً السميان على طاري بمديد التطاق والديم التعليقات مر

للوام الله الله الله الله www.jskiebenon.com/total/blocks4and5/scoping-come

Total E&P Liban Sal Block 4 (Lebanon) Offshore Exploration Drilling EIA RSK/H/P/P80754 Block 4 rev2



## بطيش اقترح فرض 3% على المستوردات رفض من وزارة المال والهيئات الاقتصادية

"النوام" من المراق المراق المن المراق المرا

بياب المراقب المراقب المراقب المراقب المراقب المراقب المراقب المراقب المراقب في طاق الدام المراقب الم

قدم وزير الاقتصاد والتجارة منصور بطيش في اول جاسة عقدتها الحكومة لدرس مشروع موازنة سنة 2019 محاظة تعليقاً على مشروع الموازنة المقدم من وزارة المال لتشمل مداخلته عرضا حول الدوضاع الاقتصادية في البلاد بشكل عام مع اقتراداته لذفض الانفاق وزيادة الإيرادات، فضلًا عن ملامج رؤيته لذطة النهوض التقتصادي،

هي القور الثاني من "مديع الأسال" في الفضل اميد بن حديد بن أديد بن ابراديم الميداني برد خديد بن أديد بن ابراديم الميداني برد شخل اللاب دعيد عن الحديد بن الديداني بالا الميداني برد شخل اللاب دعيد عن "مرا أسل الميداني بديد الميداني بديد الميداني بديد الميداني الميدا ومدياتاً». 2 أن مناس الموضونين الاستسيان لا يمنعل ولا يمواني دون تشايل فريق متاسل من فرز المنطود لعب الالترباء بنظاماً الفلك، ويطالما المجير وبطالما الوجال، وتطالماً الداريخ، ومن الدارس الشاقلة من المسالم بميوانين بمروفين بترقيمي

أَسْرَقُ مِن شُطَاطْ...

موردات وطاقة متروح في القديل المتعلقة من العداء ومناسي المرافقي بتراهمين ومثلل قبل المعالم المعالمين والطاقة والمثان والمعالم المعالم المعالمية المراكب التي القدت والمثلل قبل المعالمين والطاقية إلى أن المعالم المعالم المعالم المعالمين وفي عقابل الالما من الأسماء التي تشرح الأفامانية عن أيضها فطوعينا وطوحها الدولية والسابق المعالمين والمعالمين المعالمين المعالمين

الإضراب شُلِّ المؤسسات العامة والمصالح المستقلة

## الشيوعي تظاهر في عيد العمّال ويعتصم في رياض الصلح

يوامش الدرب الدارون اللباش التداخل المساورة المائية المساورة والاستوادة الدارون والدارون والدارون والدارون والدارون والدارون والدارون والدارون والدارون الدارون الدار

وكان الدرب قد بنظم تستسببا من المراك التشهي والوقائات الدسية بالقائلة والرسي الوقام بدق العمل المعاود وبالقائلة وإلى المحارث المنال المعاود والقائلة وإلى المحارث المعاود والمعاود المحارث المعاود والمحارث المعاود والمحارث المعاود والمحارث المحارث المحارث

## "لقاء الجمهورية" يأسف لـ"المزايدات الشعبوية"

العناد الكاه الإسادة المسادة المسادة القديرية الكارة الديرية الكارة المراحات القديرية الكارة المراحات القديرية الكارة المراحات القديرة الكارة المسادة والمسادة والمراحات المسادة والمسادة والمس

## اجتماع "إيجابي" بين خليل وأبو سليمان والاتحاد العمالي

يه يعد ويبر العمل كميل مس منتيل مع المياترة بالمواز المساقة ومن مناسبة وليس المساقية العملي العمل والما المساقية والمساقية وا

RSK/H/P/P80754 Block 4 rev2

الاستان العيش الاستان الموافد المداسي والمثاف "الإسراب عو مراء من صرفا للما مواه قطع شواع الواضراتات المدن ومدالما من يعضر مديم وتما إطاب عدال السابات الايسانيم تبريا ارشاء النالو ستيمان فقال رما التي سوال مول التالو متيمان فقال رما بتى سؤال مول ما إذا كان ثم يمن على الاتحاد العملي فالجيل تحرول إلى مرين توضيح قرارات العالجيل الاتحاد مواجع فالقدائل وور العمل الذي تعاود في مناللوشوق وكان الاجتماع إيطاليا فالتناد الدق في إيماد وجها نظرة

Invitation to the public participation meeting to discuss the Environmental Impact
Assessment (EIA) Scoping Reports for proposed exploration drilling in diffatore
Blocks 4 and 5 on behalf of Total EBP Uban SAL and its partners.

منوة لمشور اجتباع مشاركة الدانة بشائلتة تقارير تعنيد نطق تقينو ذاكر الربتي لعمليات المثر الاستكشافية للفترمة في الرفح البحرية بالوراة بإقراد و 4 أيابة من 454 محكة الاطلاق المراة بالمراة بإقراد و 4 أيابة من 454 محكة الأطلاق المرا

تو غين (Six Systems Lab.) القرام برناما القيم الأراضي المقطوع وقاً القومية CALL الأصبية على الراضي اليتي الراضي والمنافق الله (Six Systems Lab.) مسئل المسئل والمسئل القرأن المنين المناخ علياً المنافقة القراء المنيد على الله المنافقة القراء المنيد المناخ على المنافقة القراء المنيد المنافقة التي المنافقة القراء المنافقة المنا

VIEWING DAYS:

SATURDAY 4 MAY 2018, AT 4:00 P.M. VIVIANE DEBBAS

## **Disclosure Phase Public Consultation Meetings**

آخر نجاحات الشركة مو تمكنها من تأمين تمويل بقيمة 600 مليون دولار بفائدة ثابتة لم تتجاوز الـ3,9% على فترة 12 عاما، من طريق بيع وتأجير الطائرات مع شركة BOC. ومذا الامر لم تستطع الدولة القيام به بسندات الخزينة التي وصلت فوائدها الى نحو 11% و12%. ومذه الغوائد المتدنية التي حصلت عليما الميدل ايست" تثبت أن نجاحها هو موضع

عن سروره العميق "بالعمل مجددا مع شركة طيران الشرق الأوسط في إطار خططها المادفة إلى توسيع أسطولُما وشبكاتما". وقال: "هذا الإنفاق الرأسمالي التدريجي عُلى الطائرات ذات الميكل الضيق الأوسع حجما، والمجمزة بتقنيات جديدة، هو مثال آخر على استثمارنا المنضبط في الطائرات التي تلقى رواجاً وإقبالاً واسعاً. ومو أيضاً خير مؤشر لقدرتنا على استنباط حلول

استثمار المصرف المركزي"

وفق ما تؤكد مصادر متابعة، بل لكي يكون و9 أشهر لتصبح جاهزة للا في مقدور مصرف لبنان الذي يملك 99 % ومعلوم أنه يمكن عبر الم من أسهمُها تأمين بعض الاموال التي تقدر إدراج كلُّ الادوات المالية أي أنه إضافة الى الأسم بأكثر من مليار دولار لتعزيز احتياطاته. العملات الاجنبية، والمعاد ومو ما أكده الحاكم الذي سبق أن قال إن "شركة طيران الشرق الأوسط هي من وشركات تابعة لمصرف اب طيران الشرق الاوسط. الاستثمارات الرابحة لمصرف لبنان، إذ تفوق قيمتما المليار دولار، وقد سددت

ci@annahar.com.lb

## الإدارة أعطت النائب الصفة للطعن أمام الشوري والبيئة أوصت بإدانة جريمة إسرائيل

أقرت لجنة الادارة والعدل برئاسة النائب جورج عدوان، اقتراح قانون يعطي النائب الصفة والمصلحة للطعن امام مجلس شورى الدولة، والمقدم من النائبة بولا يعقوبيان.

وفي تصريح بعد الجلسة، رأت يعقوبيان 'ان هذه الخطوة تعزز الدور الرقابي للنائب على اعمال المُكومة والـوزراء والإدارات"، مشيرة الى انما

"حاولت تقليص عدد النواب اصحاب الحق ألى ثلاثةً بدلا من خمسة وتوسيع دائرة المواضيع التي يجوز الطعن فيما (مكتوبة بالازرق)، لكن الاكثرية لم توافق

وقرّرت لجنة البيئة في جلسة برئاسة النائب مروان حمادة، وحضور وزير البيئة

فادي جريصاتي، توجيه توصية الى البوزارة وكبل المعنيين بإدانة الجريمة البيئية التي ارتكبتما اسرائيل على تُخوم مزارع شبعاً وخارج معركة افيفيم - مارون الراس، وقبلها بأيام في حق احراج تاريخية اساسية على تخوم مزارع شبعا، ومراسلة الامم المتحدة والمنظمات البيئية الدولية، "لان هذه الجريمة هي عملية ارض محروقة

بحق لبنان"، بحسب حمادة.

وأوضح حمادة أن اللجا جلسة مجلس الوزراء الخاص

وأقرت لجنة الصحة والشؤون الاجتماعية فر النائب عاصم عراجي، اقتر من النائب علي المقداد وا المادتين 85 و86 من القا (ذوى الماجات الخاصة). وأوضح المقداد "أن اله القانون كانت تتيح للذ الماجات الخاصة ان يشترع رسوم جمركية. وبعد البحد 2019 جرى شراء سيارة لاء 664 مليون ليرة معفة وسيارة رولز رويس سعرها معفاة من الضريبة (...) فوق المئة مليون ( ...)

واقتراح القانون الذي الحق في أن يسيّروا أمو سعر السيارة تقريبا حوالر بلد المنشأ من دون جمارك تقريباً في لبنان حوالي 50

وأوصت لجنة الاشفال والطاقة والمياه في جلسا اللجنة النائب نزيه نج الاشغال العامة والنقل يو وممثل عن مجلس الانماء وا في تأمين الاموال اللازمة المتعلقة بمعالجة الانهيار البيدر- ترشيش والبالغة ا ليرة لبنانية"، و"العمل على من الجهات المانحة لمصلًا أجل تنفيذ الطرق الداخلي التحتية وحيطان الدعم".

Invitation to the public participation meeting to discuss the Environmental Impact Assessment (EIA) Report for proposed exploration drilling in offshore Block 4

TOTAL

Total E&P Liban SAL and its partners Eni Lebanon BV and Novatek Lebanon SAL plan to carry out exploration drilling in Block 4 Offshore Lebanon in late 2019. The Contractor, RSK Environment Ltd was appointed following a call for tender to carry out the required Environmental Impact Assessment Study in accordance with Decree 8633/2012 as part of the environmental permitting, and is being assisted by Dar Al-Handasah Consultants (Shair & Partners) s.a.

Total E&P Liban SAL invites the stakeholders and the community to attend public participation meetings about the outcome of the EIA and to receive comments. The meetings aim to gather the opinions of the concerned parties about possible environmental and social impacts that may result from the project and ensure that they are addressed in the final EIA report. Two general meetings will be held for this project, on September 19 at the Radisson Blu Hotel, Verdun Beirut (10:00 AM -13:00 PM), and on September 20 at the Byblos Municipal Culture Centre, (10:00 AM - 13:00PM).

In addition to the public participation meeting it is also possible to access the EIA Report online and to provide comments for a period of 1 month commencing 4th September 2019. https://www.rsklebanon.com/total/block4/eia-comments/

## دعوة لحضور اجتماع مشاركة العامة لمناقشة تقرير دراسة تقييم الأثر البيني لعمليات الحفر الاستكشافية المقترحة في البلوك رقم ٤

تعتزم شركة "Total E&P Liban SAL وشركاتها Eni Lebanon BV و "Novatek Lebanon SAL بإجراء عمليات الحقر الاستكشافية في البلوك رقم 5 قبالة الشاطئ اللبتاني في أواخر عام ٢٠١٩. وبناءً على للناقصة الخاصة بدراسة تقييم الأثر البيش المطلوبة تم تكليف شركة RSK Environment Ltd للقيام بهذه الدراسة وفقًا للمرسوم ٢٠١٢/٨٦٣٢ للحصول على الترخيص البيتي الإلزامي، وتساعدها في ذلك شُركة دار الهندسة للتصميم والاستشارات الفنية (شاعر ومشاركوه) ش.م.ل.

تتشرف شركة Total E&P Liban SAL بدعوة أصحاب المصلحة والمجتمع لحضور اجتماع مشاركة العامة لمناقشة نتائج تقييم الأثر البيثي وتلفر الملاحظات المتعلقة بهذا التقرير. يهدف الاجتماع إلى الوقوف على آراء الأطراف المعنية حول الآثار البيئية المحتملة التي قد تنجم عن المشروع والتأكد من إقتراح سبل معالجتها في دراسة تقييم الأثر البيتي النهائي.

سيعقد اجتماعان عامان لهذا المشروع في ١٩ أيلول في فندق راديسون بلو فردان في بيروت (من الساعة العاشرة صباحاً حتى الساعة الواحدة ظهراً)، وفي ٢٠ أيلول في المركز الثقافي في حبيل (من الساعة العاشرة صياحاً حتى الساعة الواحدة ظهراً).

بالإضافة إلى اجتماع مشاركة العامة، يمكنكم أيضاً الاطلاع على تقرير تقييم الأثر البيتي وتقديم الملاحظات عير الإنترنت على الموقع أدناه لمدة شهر من تاريخ ٤ أيلول ١٤-١١: /https://www.rsklebanon.com/total/block4/eia-comments

## التغريبةالفلسطينية: 4**0 ألف مهاجر في 4 سنوات**

أورويا أو كنام وامريك مسيحة وهمه يجديه المتسطينية بها، قبة السنوات الآخيرة، طارت إمادة اللوطينة في أورويا أو أخط وامريكا، خلماً سماء المثالة لسهم في تحكيثه مواملة عدة، والعبد بعض من كان يتظاهر في عين الخلوة والبخاوي والتاريط الوايروية منه أخلك قالمودة، يمنصم إمام السفارة الكنوية في بيروث لفتح بإن الهجرة، كما حصك أوله من أمس، للمرة الثانية خلالة شهر



كفانا

حزب الله في واد والتيار والقوات في وادٍ آخر

## Invitation to the public participation meeting to discuss the Environmental Impact Assessment (EIA) Report for proposed exploration drilling in offshore Block 4

## جعجع يُقصي سركيس؟





## **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 3.4 Example of Announcements in sample Municipalities

80754









[This page has intentionally been left blank.]

## **Announcement in Burj Hammoud Municipality**





دعوة لحضور اجتماع مشاركة العامة لمناقشة تقارير تحديد نطاق تقييم الأثر البيني لعمليات الحفر الاستكشافية المقترحة في الرقع البحرية رقم 4 و 9 نيابة عن Total E&P Liban وشركاه

تعتزم شركة Total Liban E&P (المشغل) وشركاه Total Liban E&P المشغل عمليات الحفر الاستكثافية في الرقعة رقم 4 قبالة الشاطئ اللبناتي قرب نهاية كانون الأول 2019 وفي الرقعة رقم 9 قبالة الشاطئ اللبناتي في أو اخر عام 2020. بعد إجراء مناقصة، تم تعيين RSK Environment Ltd لقيام بدراسة تقييم الأثر البيئي المطلوبة وفقا للمرسوم 2012/8633 الحصول على الترخيص بدراسة تقييم الأثر البيئي المطلوبة وفقا للمرسوم 2012/8633 الحصول على الترخيص البيئي الإلزامي، و تماعده في ذلك شركة دار الهندسة (شاعر ومشاركوه).

تتشرف شركة Total Liban وشركاه بدعوة أصحاب المصلحة والمجتمع المحلي لحضور اجتماع مشاركة العامة لمناقشة تقارير تحديد نطاق تقييم الأثر البيني. يهدف الاجتماع إلى الوقوف على أراء الأطراف المعنية حول الآثار البينية والاجتماعية المحتملة التي قد تنجم عن المشروع والتأكد من إقتراح سبل معالجتها في دراسة تقييم الأثر البيني المقبلة.

سيعقد هذا الاجتماع العام في 24 ايار 2019 ، في فندق راديسون ، فردان، بيروت من الساعة العاشرة صباحاً حتى الساعة الواحدة ظهرا.

بالإضافة إلى اجتماع مشاركة العامة، يمكنكم أيضا الحصول على تقارير تحديد النطاق وتقديم التعليقات عبر الإنترنت على الموقع أدناه:

www.rsklebanon.com/total/blocks4and9/scoping-comments





| List of Municipalities where Announcements were Placed |
|--|
| Municipality of Al-Kleiat                              |
| Municipality of Al-Mehamra                             |
| Municipality of Al-Moukaiteh                           |
| Municipality of Arida                                  |
| Municipality of Bebnine                                |
| Municipality of Cheikh Zennad Tal Bibé                 |
| Municipality of Kobbet Bchamra                         |
| Municipality of Bhanine                                |
| Municipality of Al Minieh                              |
| Municipality of Deir Ammar                             |
| Municipality of Baddaoui                               |
| Municipality of Tripoli                                |
| Municipality of Al-Mina                                |
| Municipality of Chekka                                 |
| Municipality of Selaata                                |
| Municipality of Koubba                                 |
| Municipality of Batroun                                |
| Municipality of Kafarabida                             |
| Municipality of Damour                                 |
| Municipality of Koubayat                               |
| Municipality of Al-Mehamra                             |
| Municipality of Al-Hery                                |
| Municipality of Hamat                                  |
| Municipality of Rass Maska                             |
| Municipality of Thoum                                  |
| Municipality of Anfeh                                  |
| Municipality of Qalamoun                               |
| Municipality of Al-Hraicheh                            |
| Municipality of Bouar                                  |
| Municipality of Safra                                  |
| 1 / 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2              |

| List of Municipalities where Announcements were Placed |  |
|--|--|
| Municipality of Adma                                   |  |
| Municipality of Okiabe                                 |  |
| Municipality of Jounieh                                |  |
| Municipality of Zouk Mosbeh                            |  |
| Municipality of Zouk Mikhael                           |  |
| Municipality of Dbayeh                                 |  |
| Municipality of Antelias                               |  |
| Municipality of Jal El-Dib                             |  |
| Municipality of Zalka                                  |  |
| Municipality of Burj hammoud                           |  |
| Municipality of Beirut                                 |  |
| Municipality of Berbara                                |  |
| Municipality of Aamchit                                |  |
| Municipality of Monsef                                 |  |
| Municipality of Jbeil                                  |  |
| Municipality of Fidar                                  |  |
| Municipality of Halet,                                 |  |
| Municipality of Naher Ibrahim                          |  |
| Municipality of Ghoubrayreh                            |  |

**Total Exploration and Production Liban Sal** 

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 3.5 Background Information Document (BID)

80754









[This page has intentionally been left blank.]

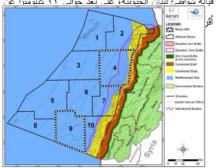
### وثيقة بالمعلومات الأساسية أعمال الحفر الاستكشافي في البحر، لبنان، ٢٠٢٩-٢٠٢٩

في ٢٩ كانون الثَّاني/يناير ٢٠١٨، وقُعت الجمهورية اللبنانية، مُمثُّلة بوزير الطاقة والمياه، عقدَى تتقيب وانتاج مع ائتلاف شركات بضم TOTAL E&P Liban SAL ، و Eni Lebanon BV و Novatek Lebanon.

وتُعَرِّم شُرِكة TOTAL E&P Liban SAL، باعتبارها المشغّل، حفر بئرَيْن استكشافيّيْن في البحر في لبنان في البلوكَيْن ٤ و٩ في العامَيْن ٢٠١٩ و٢٠٢٠ على التوالي.

يقع البلوك ٤ قبالة شواطئ لبنان الشمالية، على بعد حوالي ٦ كيلومترات عن أقرب نقطة على الشاطئ. أما البلوك ٩ فيقع





### كيف يمكنكم المشاركة؟

مشاركة أصحاب المصلحة والمشاورات العامة (أيارامايو ٢٠١٩): سبتة تقد اجتماعات مع السلطات العامة ومنظمات المجتمع المدني والمجتمعات المحلّوة. يمكنكم طرح أسئلة عن المشروع خالل هذه الاجتماعات وإبداء الملاحظات وتقديم الاقتراحات

الدراسات الأساسيّة (آيار/مايو ٢٠١٩): سينَمَّ عقد اجتماعات مع المجموعات المتأثّرة والمنظمات غير الحكوميّة والشركات التجارية والمّناعية. كذلك، سينّتي الباحثون إلى قرانا/مدننا الطرح الأمثلة ومناقشة المشروع بشكل أعمق.

اجتماعات الإقصاح عن النتائج: سيتم إطلاعُكم على استنتاجات دراسة تعيم الأثر البيئي والاجتماعي خلال اجتماعات مناقسة الملاحظات. وسيتم إعطاؤكم فرصة تانية لطرح الأسئلة وإبداء الملاحظات.

بعد ذلك، سبتمَّ تقديم التقرير إلى الحكومة للموافقة عليه. ولا يمكن السير بالمشروع إلا بعد نيل موافقة الحكومة. وسيتمُّ تنفيذ جميع إجراءات الإدارة الواردة في التقرير.

للمزيد من المعلومات، يُرجى التواصل معنا عبر البريد الإلكتروني التالى:

EP.TEPL-Info@total.com

### معلومات عن المشروع وأنشطته

تُقترح شركة TOTAL E&P Liban تتفيذ أنشطة الحفر الاستكشافي في أواخر العام ٢٠١٩.

لم يِتَمُ تحديد تواريخ حشد الموارد لكلِّ منطقة بحرية خاضعة للترخيص، علمًا أنَّ ذلك يعتمد على عملية إصدار التراخيص.

- تُقدَّر الفَترة اللازمة للبلوك ٤ بشهرَبْن.
- تُقدَّر الفَترة اللازمة للبلوك ٩ بشهرين ونصف الشهر.

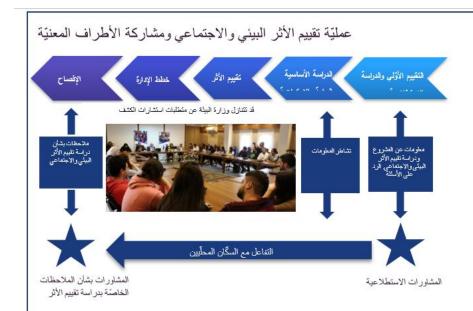
وقد تطول الفترة اللازمة الأنشطة الحفر بناءً على توقّف الأعمال بفعل الظروف المناخية، وتبديل فرق العمل واعادة ضبط المعدّات.

وميقع البئران الاستكشافيان المقترحان عند نقطتى تتقيب مُحنَّدَيَّنِ في البلوكَيْنِ ٤ و ٩.

ويُحتَمَل أن تشمل السفن والبواخر ووحدات الحفر التي قد تُستخدَم خلال الأنشطة النفطية في سياق هذه الحملة ما يلي:

- مفینة حفر یتم تثبیتها فی موقعها باستخدام نظام تموضع ديناميكيّ.
  - قاعدة لوجسية ضمن مرفأ بيروت.





### من يُجرى دراسة تقييم الأثر البيئي والاجتماعي؟

مبتولًى اختصاصبون من المملكة المتّحدة (RSK) ومن لبنان (دار الهندسة وشركة INFOPRO) لجراء الدراسات الاجتماعية-الاقتصادية والثقافية. ويقوم اختصاصبون من فرنسا (Creocean) ومن لبنان (Keran Liban، وDEP

### دراسة تقييم الأثر البيئى والاجتماعي

/FCIAN

سيتم إجراء دراسة لتقييم الأثر البيئي والاجتماعي تماشيًا مع المعابير الدولية ومنطلبات شركة TOTAL.

متعاين دراسة تقييم الأثر البيئي والاجتماعي هذه الآثار المحتملة لأنشطة المشروع وتقدم المشورة حول كيفية تجنب الآثار السلبية أو التخفيف منها وكيفيّة تعزيز الآثار الإيجابيّة.

فضلًا عن ذلك، سوف تشمل دراسة تقييم الأثر البيئي والاجتماعي ما يلي:

- تقييم أولى ودراسة استطلاعية: سوف يُجري اختصاصيون في المجال دراسات لمراجعة جميع المستندات والبيانات المتاحة لتحديد المجالات المهمة الأساسية والمعلومات السياقية.
- دراسة أساسية: ستُجرى دراسة أساسية لفهم البيئتينن الاجتماعية-الاقتصادية والطبيعية.
- تقييم الأثر: سيقوم الاختصاصيون المذكورون أعلاه، بمساعدة السكَّان المحلِّيين، بتحديد أيّ آثار أوَّلية ومتبقية على سبك العيش والنباتات والحيوانات والمياه والهواء والثقافة والصّحة، وبتقييم هذه الآثار وتحديد حجمها وأهميكها.
- إعداد خطط إدارة بيئية واجتماعية: سيتم إعداد خطط لتجتُّب أو إدارة آثار المشروع السلبية وتعزيز الآثار الإيجابية.

### مشاركة الأطراف المعنية





### **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 3.6 Public Consultation Presentation

80754









[This page has intentionally been left blank.]



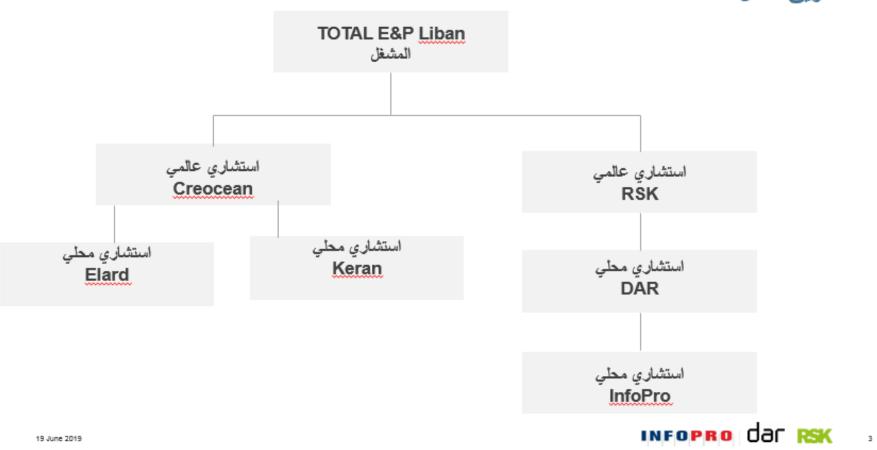
### أهداف الاجتماع

- دراسة تقييم الأثر البيئي والاجتماعي هي الخطوة الأولى في عملية التراخيص
- تقوم شركة Total بجمع معلومات معمقة لتقييم الآثار البيئية والاجتماعية السلبية والايجابية
- سيئم إجراء دراسة لتقييم الأثر البيئي والاجتماعي بموجب المرسوم ١٦٣٣ تاريخ ٢٠١٢ "أصول تقييم الأثر البيئي"، ووفقًا للقوانين المرعية الإجراء، والمواصفات المعتمدة من قبل شركة TOTAL، والمعايير الدولية.
- يتمثل جزء مهم من عملية ESIA في المشاركة / التشاور مع أصحاب المصلحة والمجموعات المتأثرة المحتملة لدمج أسئلتهم / اقتراحاتهم والتأكد من معالجة الآتار المحتملة لأنشطة الشركة بما يتماتني مع التسلسل الهرمي للتخفيف

INFOPRO dar RSK

12 آئار/سابو 2019

### فريق العمل



## إقرار أعمال التنقيب عن النفط والغاز في البحر - التشريعات الأساسية

| التشريعات                      | عتواتها   | ملقص عتها  |
|--------------------------------|---|--|
| القانون رقم ٤٤٤ تاريخ ٢٠٠٢     | فاتون حماية البيئة  | يحدُّد الإطال العام لحماية البيئة في لبنان   |
| المرسوم ٦٦٣٣ تاريخ ٢٠١٢        | أصول تقييم الأثر البيئي   | يحدُّد سُروط إحداد النَقييم البيئي   |
| المرسوم رقم ۲۲۱۳ تاریخ<br>۲۰۱۲ | التقييم البيئي الاستراتيجي لمتباريع السياسات والخطط<br>والبرامج في القطاع العام | يحدد الأصول الواجب الباعها لتقبيم الآثار البيئية المحتملة لمدياسة مقترحة أو<br>خطَّة أو برنامج أو دراسة أو استثمار يطال منطقة لينانية معيِّنة أو أحد قطاعات<br>العمل |
| القرار ۲۲۱/۱ تاریخ ۲۰۱۵        | ألية مراجعة تقارير نحديد نطاق تقييم الأثر البيئي وتقارير<br>تقييم الأثر البيئي  | يحتوي هذا القرار على الإجراءات الذي تعتمدها وزاة الطاقة لمراجعة تقارير<br>تحديد نطلق تقييم الأثر البيئي وتقارير تقييم الأثر البيئي                                   |

INFOPRO dar RSK

12 أثيار الدابور 2019

### إقرار أعمال التنقيب عن النفط والغاز في البحر

| ملدِّص عنها  | عتواتها   | التشريعات   |
|--|---|---|
| يحدُّد القواعد الرئيسية المتطَّقة بالأنسَّطة البترولية في المياه اللبنانية   | قانون الموارد البترولية في المياه البحرية                                       | القانون رقم ۱۳۲ تاریخ ۲۰۱۰                          |
| تطبيق القواعد الرئيسية المتعلقة بالأنشطة البترولية التي يحدَّدها قانون<br>الموادد الدرولية في المواد البحوية   | الأنظمة والقواعد المتعلقة بالأنشطة البترولية                                    | المرسوم رقم ۱۰۲۸۹ تاریخ ۲۰۱۳<br>وتعدیلاته           |
| تطبيق القواعد الرئيسية المتعلقة بالأنشطة البترولية التي يحدَّدها قانون الموارد البترولية التي يحدَّدها قانون الموارد البترولية في المواد البحرية<br>ينصُّ على الأحكام التعاقدية لأتشطة الاستكشاف والإنتاج لاتَّقاقيات الاستكشاف والإنتاج المبرمة | نموذج اتقاقية الاستكشاف والإنتاج  | الملحقُ رفَم ٢ الثابع للمرسوم رفَم ٤٣<br>تاريخ ٢٠١٧ |
| يكفل لكلُّ سَخص حقَّ الوصول إلى المعلومات الموجودة لدى كافة إدارات<br>الدالة   | فانون الحقِّ في الوصول إلى المعلومات  | القاتون رقم ۲۸ تاریخ ۲۰۱۷                           |
| سوب<br>رأي هيئة إدارة قطاع البترول، قبل البدء بحفر أيٌّ بئر أو مجرى بئر على  | يجب الحصول على رخصة حفر صادرة عن الوزير بالاستناد الى عمق يتجاوز خمسين ٥٠ مترًا | المادَّة ٩٢ من المرسوم رقم ١٠٢٨٩<br>تاريخ ٢٠١٣      |
|  | قانون السَّفاقية  | قانون رقم 84 تاريخ 2017                             |

INFOPRO dar RSK 5

15 أثيار/سابو 2019

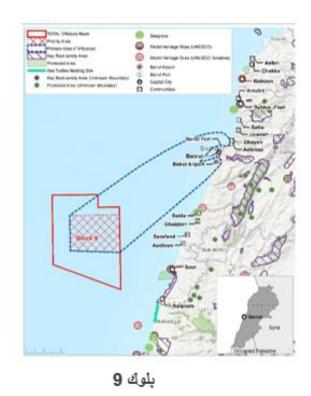
### المعايير الخاصة بشركة TOTAL

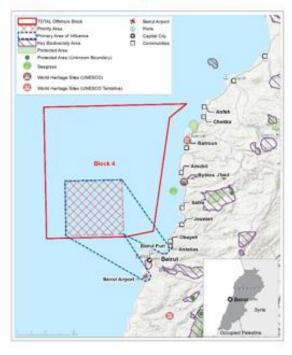
- GS EP ENV 001
   الشروط البيئية لتصميم المشاريع وأنشطة الاستكشاف والإنتاج
  - GS EP ENV 120
     تقييم الأثر البيئي لأنشطة الاستكشاف والإنتاج
    - GS EP SDV 102 تقييم الأثر الاجتماعي
- GS EP ENV 112
   الدراسات البيئية الأساسية ودراسات الرصد في المياه البحرية والساحلية
  - GS EP SDV 101
     الدراسة الاجتماعية الأساسية

12 أثار اسابق 2019



### منطقة الأعمال





بلوك ٤

12 أثار الحام 2019



### عملية تقييم الأثر البيئي والاجتماعي



تشر المطومات

بعد إنجال مسوكة دراسة تقييم الأش

يعد إنجاز مسودة دراسة تقييم الاتر البيشي والاجتماعي، سيتة نشر المعلومات ومشاركة العامة والا في حال تنازل ورزارة البيئة عن هذا الشرط (قرال وزارة البيئة من هذا المرحار (٢٦١/١) لضمان قدرة أصحاب العلاقة على إيداء الأراء بشأن نتائج الدراسة ولشرح كيقية معالجة تطيقاتهم









التقييم الأولي وتحديد تطاق دراسة تقييم الأثر البيني والاجتماعي تعيد الارحية إلى تحيد نطاق تباسة تقييم الأص البشي والاجتماعي، ويتطقة الدراسة، والعطومات المتاحة، والآثار الباللة المحتملة لتي يجب تقييمها بشكل لكار تقصيلاً خلال دراسة تقييم الأثر البشي والاجتماعي



خطة الإدارة البينية سيتكم إعداد خطط إدارة للتخفيف من الأثار السلبية وتعزيز الأثار الإيجابية والقوائد المحتملة

تقييم الأثار المحتملة ميتة تحيد الاثار السلبية والإيجابية المحتملة المشروع وتقيمها استنادا إلى أهبيتها بالنمية إلى الناس وشكل عشهم والبيئة الطبيعية

دراسة الوضع الاجتماعي للمناطق المحيطة بالمشروع سيتم إجراء براسات لقيم البيئة الإجتماعية الإراء براسات لقيم البيئة الاجتماعية ويتحدد و المنطقة المتحدد ( RSK) إما المنطقة المتحدد المتحدد المتحدد المتحدد و الاستحام المتحدد المتحدد

وصف البينة المحيطة للمشروع أجريت دراسة أساسية للبيئة البحرية الغهم طروف البيئة البحرية والطبيعية بشكل أفضل

مشاركة أصحاب العلاقة



### المشاورات العامة

- تقرير تحديد نطاق دراسة تقييم الأثر البيئي والاجتماعي مُتاح على الموقع التالي http://www.rsklebanon.com/total/blocks4and9/scoping-comments/ منذ ٣ أيار/مايو ٢٠١٩ حتى ٢ حزيران- يونيو ٢٠١٩
  - يمكن إرسال التعليقات عبر الموقع الإلكتروني
- سيتم تضمين التعليقات في تقرير تحديد نطاق دراسة تقييم الأثر البيئي والاجتماعي لتقديمها إلى هيئة إدارة قطاع البترول ووزارة البيئة
- عقدت اجتماعات مشاركة أصحاب المصلحة على المستوى الوطني في الأسبوع الذي يبدأ في 13 مايو وما زالت مستمرة: سيتم إدراج التعليقات في تقرير تحديد النطاق
- اجتماع لمشاركة العامة يوم الجمعة ٢٤ أيار/مايو ٢٠١٩ في فندق راديسون، فردان، بيروت، من الساعة ٠٠:٠٠ صياحًا حتى ٢٠:٠٠ ظهرًا

INFOPRO dar RSK

### الدراسات البيئية والاجتماعية الأساسية

### دراسة الأساس الاجتماعي

### دراسة خط الأساس البيئي

الدراسة المكتبيّة

الحمل الميداني جمع اليبانات الأولية المسوحات البحرية الأساسية

تقرير البيئي وصف سياق المشروع تحديد الحساسيات

الدراسة المكتبيّة

العمل الميداني جمع البيانات الأولية ارتباطات أصحاب المصلحة على المستوى المحلى

خطة إشراك أصحاب المصلحة

تقرير الاجتماعي وصف سياق المشروع تحديد الحساسيات

INFOPRO dar RSK





### تقييم الأثر البيئي والاجتماعي (ESIA)

# تقييم الأثر البيئي والاجتماعي

عملية تحديد النطاق نتائج دراسة الأساس الاجتماعي وخطة إشراك أصحاب المصلحة اجتماعات أصحاب المصلحة مشاركة العامة

تقييم الأثر البيئي والاجتماعي

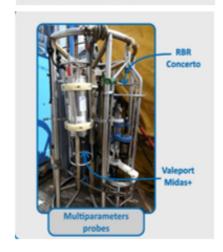
نقييم الآثار الاجتماعية تعريف تدابير التخفيف

إقصاح تقييم الأثر البيئي والاجتماعي الجنماع لمشاركة العامة

تقرير تقييم الأثر البيئي والاجتماعي



# Messenger Niskin bottle Rosette



19 June 2019

### عملية تحديد النطاق الوصف البيئي

### التيارات

سيتم تحديدها أتناء دراسة محاكاة التسرّب النفطى

### جودة المياه

- مصادر ثلوت مختلفة بيولوجية (الصرف الصحي)، وكيميائية، بما في ذلك المعادن (الصرف الصناعي)، ثلوت المياه الناجم عن المغذيات المفرطة
  - (الأنسطة الصناعية، والأسمدة، والمنظفات، والصرف الصحى)
- تمّ رصد تغرات عدم وجود بياتات متوفّرة للبلوگين ٤ و٩، لذا فإنّ نطاق المسح الميداني يسمل جودة المياه

### جودة الرواسب

- كما هي الحال في ما يخص جودة المياه، تتجمّع الملوتات في بعض المناطق، في حين تُعتبر مناطق أخرى "نظيفة". وتنتقر عدة مصادر للتلوّت على طول التناطئ، مثل المصانع ونقاط التخلّص من مياه الصرف الصحى. هذا وتلعب مورفولوجيا الأرض وأنماط تدفق المياه دورًا أساسيًا في تحديد مستويات التلوّت.
- تمّ رصد تغرات تتوفّر بياتات محدودة من البلوگين ٤ و٩، فإنّ نطاق المسح الميداني يسمل جودة

INFOPRO dar RSK

### عملية تحديد النطاق \_ الوصف البيئي

- الإيكولوجيا البحرية
- المواطن الفطرية تم تحديد ٤ مناطق باعتبارها مواقع هامة محتملة وهي جزءٌ من منطقة أخدود شرق المتوسط (ELCA):
  - منحدر بیروث
  - أخدود مار جرجرس
    - أخدود جونية
    - أخدود سبنيق

قد تتواجد الأخاديد الغائصة والجبال البحرية ومرجان المياه العميقة والمنافس الماثية الحرارية والمسارب الباردة ومنصات الكربونات (carbonate mounds) وبعض مناطق نقص الأكسجين.

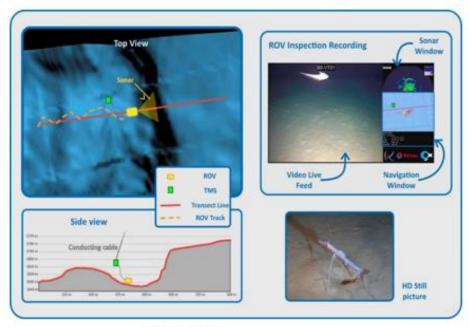
كذلك، تتواجد مواطن للنجيل البحري في عدد من المواقع.

INFOPRO dar RSK



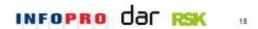
## مقاطع الفيديو بواسطة مركبة تحت الماء

٢٢ مقاطع فيديو للبلوكين : ٢٢ كم في المجموع

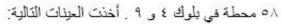




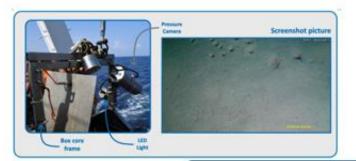
ROV - APACHE



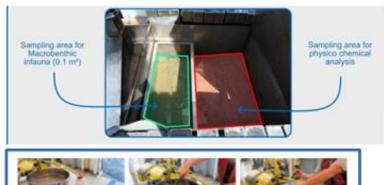
# أخذ عينات من الرواسب



- المعلمات الفيزيائية والكيميائية
- حيوانات القاع مقاطع الفيديو لقاع البحرو فيديو واحد لكل عينة









INFOPRO dar RSK



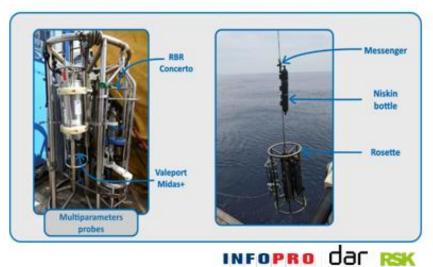




### أخذ عينات مياه البحر

٨ محطات في بلوك ٤ و 9 ، مع أخذ العينات التالية في كل محطة: - مياه البحر على عمق 3 أمتار (1-2 متر تحت السطح ، منتصف العمق ، بالقرب من القاع) - عوالق كائنات حية

- عمود الماء (الحرارة، الملوحة، الاوكسيجين، وغيرها)



### المناطق البيئية الحساسة

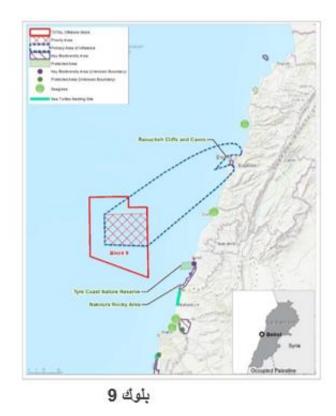


Figure states Services

Page states Reserve - Services

Page states Services

Figure Services

Figure states Services

Figure

بلوك ٤



11





- بدأت مشاركة أصحاب العلاقة في مرحلة الاستطلاع وتستمر خلال مرحلة الدراسة الأساسية وخلال مرحلة الإفصاح عن نتائج دراسة تقييم الأثر البيئي والاجتماعي.
  - من الأهداف الأساسية للعملية الاستطلاعية التأكد من أنّ السروط المرجعية لدراسة تقييم الأثر البيئي والاجتماعي تعكس هموم واقتراحات جميع فئات الأطراف المعنيّة.

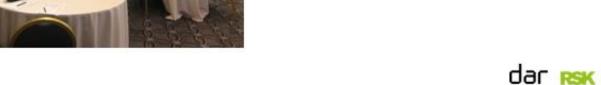












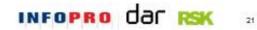
App 3.6-20

### مشاركة أصحاب العلاقة

- السلطات العامة (المستوى الوطني)
  - سلطات المحافظات
    - السلطات البلدية
- المجتمع المدني: المنظمات غير الحكومية الدولية والوطنية
  - المجتمعات المحلّية (المجموعات التي قد تتأثر بالمشروع)



- المنظمات/الجمعيات الوطنية
  - المنظمات الدولية
- - الجهات المهتمّة



### جمع البيانات للدراسة الاجتماعية الأساسية

### سيتم الربط بين عملية جمع البيانات للدراسة الاجتماعية الأساسية وعملية مشاركة الأطراف المعنية:

- خلال مرحلة الدراسة الاجتماعية الأساسية، سيتواصل فريق الدراسة الاجتماعية مع المجتمعات المحلّية لجمع البيانات الاجتماعية. وستوفّر عملية التواصل هذه الفرصة للأطراف المعنية للتعبير عن همومها وشواغلها المتعلقة بالمشروع وبدراسة تقييم الأثر البيئي والاجتماعي
- خلال مرحلة تقييم الأثر البيئي والاجتماعي، سيتم التواصل مجددًا مع الأطراف المعنيّة التي تمّ إشراكها في العملية الاستطلاعية لإعطائها فرصة التعبير عن آرائها وملاحظاتها بشأن نتائج دراسة تقييم الأثر البيئي والاجتماعي



INFOPRO dar RSK





### جمع البيانات للدراسة الاجتماعية الأساسية

تقوم الدراسة الاجتماعية الأساسية على أساس نوعيّ وتشاركيّ. فسيقوم فريق جمع البيانات بجمع البيانات الأساسيّة من عيّنة مؤلّفة من سبعة أقضية في أربع محافظات وفي بلدية بيروت، وذلك من خلال مقابلات مع مخبرين أساسيين (KII) ومناقشات ضمن مجموعات مركّزة.



### وستُجرى المقابلات مع مخبرين أساسيين من

- المجتمع المدني, المنظمات غير الحكومية المحلّية, منظمات المجتمع المدنى
  - المنظمات المعنية بالتراث الحضاري
  - الشركات (الفنادق والمطاعم والمنتجعات الشاطئية والتجار غير (الرسميين)
    - وكالات السياحة
    - التعاونيات القائمة على النشاط
      - الشركات التجارية والصناعية



### جمع البيانات للدراسة الاجتماعية الأساسية



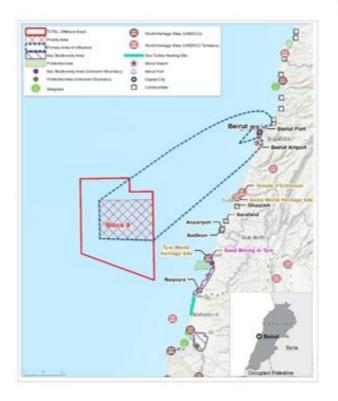
### ستُعقَد نقاشات مجموعات التركيز مع:

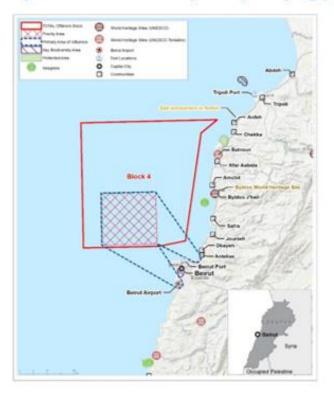
- المجموعات المتأثرة بشكل مباشر، بما في ذلك:
  - صيادو الأسماك
    - المزارعون
- مستخدِمو الموارد الطبيعية، مثل جامعي الصفد
  - المجموعات الضعيفة و/أو المهمّشة

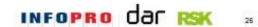




## الجوانب الاجتماعية الحسّاسة الأساسية التي تم رصدها

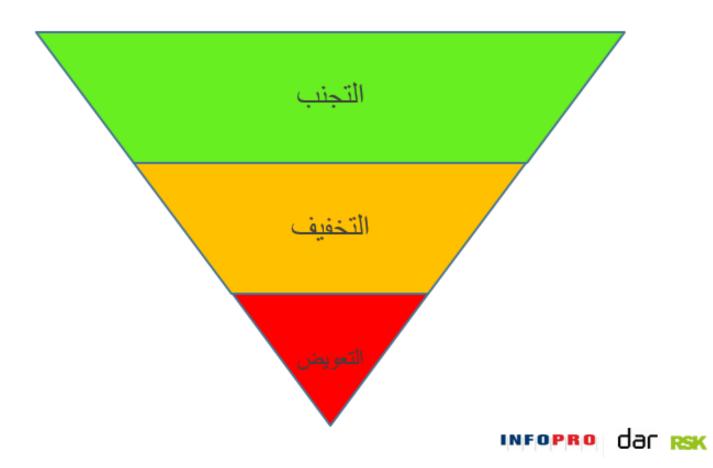








### خطة الإدارة البيئية والاجتماعية



19 June 2019

App 3.6-28

Rlock 4 (Lehanon) Offshore Evr

### تحديد النطاق- شروط المرجعية لتقييم الأثر البيئي والاجتماعي

عملية تحديد النطاق تحدد التركيز على تقييم الأثر البيئي والاجتماعي

وصف أكثر تقصيلا للمشروع

مزيد من التقاصيل حول شروط الأساس

منهجية تقييم الأثر

النمذجة لتحديد النطاقات

التركيز على دراسة تقييم الأثر البيئي والاجتماعي

التشاور والمشاركة

dar

19 June 2019

### نظام الشكاوي



6 المتابعة والمعالجة توثيق النتائج ودرجة الرضا

Email: EP.TEPL-Info@total.com

dar RSK

19 June 2019

# أسئلة وإجابات

dar RSK 31

19 June 2019





### **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 3.7 TOTAL Presentation









## مجموعة توتال

- لاعب رئيسي في مجال الطاقة
- منتج وموزع للمنتجات النفطية والغاز والكهرباء
- يوظف حوالي المائة الف شخص في ١٣٠ بلد

طموحنا هو ان نصبح الشركة الكبرى المسؤولة على صعيد الطاقة

MOTAL

# سياسة الصحة والسلامة والبيئة لشركة توتال للاستكشاف والإنتاج - لبنان

لا تساوم مجموعة توتال وشركة توتال للاستكشاف والإنتاج - لينان عندما يتعلّق الأمر بالصحة والسلامة والبيئة والجودة.

#### ومن أجل بلوغ معاييرتا، تحرص على:

- الحفاظ على تدخل الإدارة في جميع المسائل المتعلقة بالصحة والسلامة والبيئة على نحوٍ قوي وداعم وواضح، ونشر مبادئ الصحة والسلامة والبيئة بوصفها قيمة رئيسية في عملنا.
  - الامنثال للقوانين والأنظمة الوطنية ولسياسات مجموعة توتال.
- الحفاظ على الثقافة التي تجعل كلّ شخص يدرك بوضوح مسؤولياته في مجال الصحة والسلامة والبيئة، ويتصرّف بما يتوافق مع قواعدتا الذهبية
  - وضع أهداف ثابتة وقابلة للقياس في مجال الصحة والسلامة والبيئة ومؤسّرات أداء رئيسية في سبيل قياس أدائنا وتحسينه.
- إجراء تقييمات ملائمة في مجال الصحة والسلامة والبيئة من أجل تحديد وتخفيف وإدارة المخاطر التي يتعرّض لها الموظئون والنبئة والأصول.
  - التخطيط والإشراف على تنفيذ جميع أنشطتنا مع مراعاة التواحى المتعلقة بالصحة والسلامة والبيئة كأولوية قصوى.
- اختبار الشركاء في قطاعي الصناعة والأعمال بناء على نظام إدارة الصحة والسلامة والبيئة المحتمد لديهم وبناء على قدرتهم على
   الامتثال لميامئنا المحنية بالصحة والسلامة والبيئة.
  - تعزيز التزامنا بحوار مقتوح وصادق وطويل الأجل مع أصحاب المصلحة الذين تتعامل معهم.

#### ويما أن شركنتا تتحلِّي بالمسؤولية والأماتة،

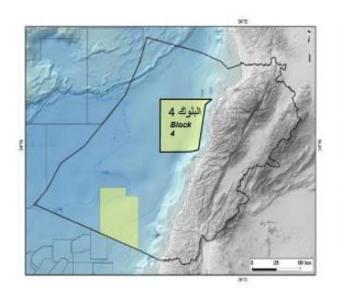
سنعمل بوصفنا جزءاً لا يتجزّاً من المجتمع الليتاتي من أجل تحقيق التحسّن المستمرّ والاستدامة في مجال الصحة والسلامة والبيئة، والجودة والاعتمادية.

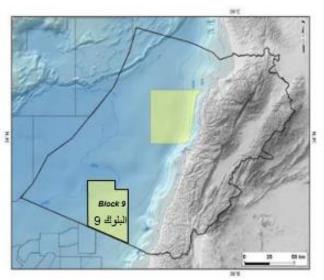
ونعتبر أن أداء كلَّ شخص بعمل معنا أو لصالحنا وفقاً لأعلى معايير الصحة والسلامة والبيئة ضروريٌ لنجاح عملنا. ولذلك، نتوقع أن بشاركنا مزوِّدونا وشركاؤنا القيم والأهداف نفسها.





## البلوك 4 والبلوك 9







# عملية الاستكشاف والإنتاج

| التقديم<br>الحيازة                    | الاستخداد<br>التقييم   | التطوير<br>ما قبل المشروع/ المشروع  | Tagler II  | نهاية التندفيل<br>استرداد الموقع                  | إعدة تأهيل البلوك |
|---------------------------------------|--|---|--|---|-------------------|
| لعرائق الدنتاية لبيئية<br>والاجتماعية | الاستكشاف: لدراسة ليبنية الأسفية / الدراسة الابتماتية الأساسية / تقيم الأثر ليبني والابتماتي | التطوير: تقييم الآر اليني والاجتماعي وتحديث الدراسة الينية الأساسية والدراسة الاجتماعية الأساسية عند الدلجة | التشغيل: تقييم الأثر البيني والاجتماعي وتحديث الدراسة البينية الأساسية والفراسة الاجتماعية الأساسية عند الحاجة | <b>ل</b> وض <b>ع لنه</b> ائي البيني<br>والاجتماعي |                   |
| CA 67 HS 6 150                        | CR 87 HS 8 150<br>GS 87 50 V 101, 102 & 105  | CR 87 HS 8 150<br>GS 87 5 DV 102 & 105  | CX 67 HS 8 130   | CM 8F H38 130<br>GS 8F 3 DV 101, 102              | CX 67 H38 130     |

عرض مشروع البلوكيُّن 4 و9 - الجلسة الاستشارية العامة - 24 أيار امايو 2019



## شركة توتال للاستكشاف والإنتاج - لبنان: شركاؤنا

الشركاء في البلوكين 4 و9:

- TOTAL توتال 40% المشغّل
- O الوكالة الوطنية للمحروقات «إني» (الإيطالية) 40%
  - Novatek شركة نوفاتك (الروسية) 20%











Total E&P Liban Sal Block 4 (Lebanon) Offshore Exploration Drilling EIA RSK/H/P/P80754 Block 4 rev2

# العمليات اللازمة من أجل حفر بئر استكشافي

~ 1700ستر

12 ~ 10 شهراً

~ 25عقداً





~ 180 شخصاً







عرض مشروع البلوكيُّن 4 و9 - الجلسة الاستشارية العامة - 24 أيار المايو 2019





### الخطط والدر اسات الرئيسية المتعلّقة بالصحة والسلامة والمجتمع والأمن والبيئة (HSSSE)

#### • السلامة

- نظام الإدارة المعنى بالصحة والسلامة والبيئة / الخطة المعنية بالصحة والسلامة والبيئة
  - نقييم المخاطر
  - خطط الطوارئ

#### البيئة والمجتمع

- الدراسة البيئية الأساسية
- الدراسة الاجتماعية الأساسية
- تقییم الأثر البیئی والاجتماعی
- خطط الإدارة البيئية والاجتماعية

#### الأمن

الخطط الأمنية

App 3.7-10

### الدراسة البيئية الأساسية

## • حملة «Janus II» البحرية التي أُجريَت في نيسان/أبريل 2019



عرض مشروع البلوكيُّن 4 و9 - الجلسة الاستشارية العامة - 24 أيار امايو 2019





#### **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 3.8 Frequently Asked Questions (FAQ) Document









| Total Exploration and Production (E&P) Lebanon Block 4      |  |  |  |  |  |
|---|--|--|--|--|--|
| Question  | Answer   |  |  |  |  |
| Project characteristics                                     |  |  |  |  |  |
| What is the project?  | On 29 January 2018, the Republic of Lebanon represented by the Minister of Energy and Waters signed two exploration and production agreements with the consortium composed of Total E&P Liban SAL, Eni Lebanon BV and Novatek Lebanon SAL. Total E&P Liban, in its capacity as operator, is planning to carry out exploration drilling activities within Block 4 in late 2019. |  |  |  |  |
| Who is TOTAL?   | TOTAL is a major energy player that produces and markets fuels, natural gas and low-carbon electricity in more than 130 countries. TOTAL's 98,000 employees are committed to better energy that is safer, more affordable, cleaner and accessible to as many people as possible. TOTAL's ambition is to become the world's most responsible energy major.                      |  |  |  |  |
|   | Climate issues are an integral part of TOTAL's corporate strategic vision with an objective to have low-carbon businesses account for around 20% of the company portfolio by 2035.   |  |  |  |  |
| Which administrative divisions and                          | The exploration drilling activities will be carried out offshore.  |  |  |  |  |
| villages will be affected by the exploration                | The minimum distance of Block 4 drilling area from the nearest point of shoreline is 6 km.   |  |  |  |  |
| drilling activities?  | An onshore logistics base will be used for transporting supplies and crew out to the exploration drilling area. The most likely location of the logistics base is Beirut.  |  |  |  |  |
| MI 91 d 1 2 1 - 12 2 - 2                                    | Total E&P Liban proposes to conduct the exploration drilling activities in late 2019.  |  |  |  |  |
| When will the exploration drilling activities start?        | Exact mobilisation dates for each offshore licence area are yet to be confirmed and depend on the permitting process.  |  |  |  |  |
|   | Block 4 is estimated to last about two months.   |  |  |  |  |
| How long will the exploration drilling activities last?     | Weather downtime, crew changes and reconfiguration of the equipment may extend the exploration drilling activity period.   |  |  |  |  |
|   | The proposed exploration drilling wells will be placed on exploration targets identified in Block 4.   |  |  |  |  |
| What is exploration drilling and what                       | These would be drilled using a modern drill ship held in place by a dynamic positioning system.  |  |  |  |  |
| What is exploration drilling and what methods will be used? | The well design is yet to be finalised but will comprise the jetting in of conductor pipe (about 36-in.) then the drilling of the well using a water-based mud in the top hole section and changing most probably to an oil-based mud for the lower sections of the well.  |  |  |  |  |

| Total Exploration and Production (E&P) Lebanon Block 4 |  |  |  |  |
|--|--|--|--|--|
| Question   | Answer   |  |  |  |
|  | The drill ship will be mobilised from outside Lebanon and arrive with all significant exploration drilling equipment on board. Crew changes would be by helicopter from Beirut. It is anticipated that the support vessels will accompany the drillship and transit from Beirut to the rig. One support vessel will be based permanently at the drill site to provide security. The other two vessels will transfer supplies, materials, equipment and waste between the drill ship and the logistics base. It is estimated that up to 10 return trips will be required per week. Helicopter transfers of personnel will be from Beirut International Airport, with an estimated five return trips per week depending on the size of the helicopter. |  |  |  |
| Where will personnel and equipment be accommodated?    | Personnel will fly into Beirut.  Most of the equipment will remain on the exploration drilling vessel. Some equipment will be stored at the logistics base inside Beirut Port.  Personnel will be stationed on board the rig.  |  |  |  |
| Will new roads need to be built?                       | No new roads are required for this project.  |  |  |  |

| Total Exploration and Production (E&P) Lebanon Block 4                       |  |  |  |  |  |
|--|--|--|--|--|--|
| Question   | Answer   |  |  |  |  |
| How will waste be managed?   | All vessels contracted by Total E&P will be required to follow international and national requirements with regard to handling of waste.  The drillship will operate in strict accordance with both the International Convention for the Prevention of Pollution from Ships (MARPOL, 1973/1978), which prohibits the discharge of trash and regulates the discharge of liquid waste and atmospheric emissions from marine vessels. The primary discharges from the drillship will be drill cuttings, treated wastewater effluent and macerated food waste. Water will be recycled to the extent practical, and sewage will be treated in on-board wastewater treatment units before discharge in accordance with MARPOL and national standards. The support vessels will not be equipped with wastewater treatment facilities but will follow all applicable MARPOL standards. Used oil and other liquid wastes will be stored in sealed containers on board the vessels for disposal at approved facilities onshore and in compliance offshore with IMO regulations on International Maritime Code for Dangerous Goods (IMDG) safe transport and storage. |  |  |  |  |
| Who gave Total E&P Liban permission to do undertake the exploration drilling | The exploration drilling activities will be carried out under the terms of environmental assessment studies in compliance with the requirements of Decree 8633 of 2012 "Fundamentals of Environmental Impact Assessment".  Based on the project classification form submitted by the developer, the Ministry of Environment will categorise the project then specify the type of environmental assessment needed, i.e., whether it is an environmental impact assessment (EIA) or an initial environmental examination (IEE).  |  |  |  |  |
| activities?  | For projects requiring an EIA to be undertaken, a scoping report should be prepared in accordance with the requirements of Annex 7 of Decree 8633 and submitted to the MoE for review. The MoE might (i) approve the report, (ii) approve the report but with certain modifications or (iii) ask for additional information. Once the scoping report is approved, the EIA study should be prepared in accordance with the requirements of Annex 8 of Decree 8633 and submitted to the MoE for review. The MoE might (i) approve the report, (ii) approve the report with conditions or (iii) reject the report specifying the reasons for rejection.   |  |  |  |  |
| Who will be doing the exploration drilling activities?                       | Several private exploration drilling contractors will undertake the activities under the supervision and coordination of the operator.   |  |  |  |  |

| Total Exploration and Production (E&P) Lebanon      |  |  |  |  |  |  |
|---|--|--|--|--|--|--|
| Block 4   |  |  |  |  |  |  |
| Question  | Answer   |  |  |  |  |  |
| Environmental impact assessment (EIA)               | Environmental impact assessment (EIA)  |  |  |  |  |  |
|   | An EIA is an independent scientific study that identifies the potential environmental and social impacts of a project. It aims to predict impacts at an early stage in project planning and find ways to reduce adverse impacts through the implementation of mitigation measures.           |  |  |  |  |  |
|   | It is a requirement under the legislative framework of the constitution under terms of environmental assessment studies in compliance with the requirements of Decree 8633 of 2012 "Fundamentals of Environmental Impact Assessment".  |  |  |  |  |  |
|   | The EIA has several phases:  |  |  |  |  |  |
|   | Scoping phase: This aim of this phase is to identify the scope of the EIA, the study area, available baseline information and high-level potential impacts that need to be evaluated further during the EIA.   |  |  |  |  |  |
| What is an EIA and why are you doing one?           | Baseline study phase: This phase involves various studies to understand the social-economic and natural environment. Specialists from RSK, Dar and InfoPro will speak with people in the project -affected communities to better understand the natural environment and the way people live. |  |  |  |  |  |
|   | Impact assessment phase: In this phase, the potential impacts are identified, defined and evaluated in terms of their importance on people, their activities and the natural environment.  |  |  |  |  |  |
|   | Management plans: In this phase, plans are created to minimise the potential negative impacts and optimise the potential positive impacts.   |  |  |  |  |  |
|   | Disclosure phase: After completion of the draft ESIA, there will be a period of information disclosure to ensure stakeholders are able to comment on the outcomes of the study and to explain how their concerns have been addressed/will be addressed.                                      |  |  |  |  |  |
|   | Stakeholder engagement is ongoing throughout all phases.   |  |  |  |  |  |
| How long will it take for the ESIA to be completed? | The current expectation is that the ESIA process will be complete for Block 4 by the beginning of September 2019.  |  |  |  |  |  |
| Will local experts be part of the ESIA process?     | Local experts are an important part of the EIA process. To complete the study, an international team (RSK) and a local consultancy (Dar and INFOPRO) will be working closely together to examine the environmental and social effects that the project may have.                             |  |  |  |  |  |

| Total Exploration and Production (E&P) Lebanon Block 4  |   |  |  |  |  |
|---|---|--|--|--|--|
| Question  | Answer  |  |  |  |  |
| What environmental studies have been undertaken and when?   | An environmental desk study and environmental offshore baseline surveys have been undertaken by an international team (Creocean) and local consultancies (Keran Liban, DEP and ELARD) during the first quarte of 2019.  |  |  |  |  |
| Impacts on health and safety  |   |  |  |  |  |
| Will the exploration drilling activities lead to an increase in noise levels? What will be done to mitigate these impacts?  | In terms of health and safety, increases in airborne noise levels will be limited to those associated with the vessel operations.   |  |  |  |  |
|   | All vessels contracted by Total E&P Liban will be required to follow international and national requirements with regard to handling of wastewater.   |  |  |  |  |
| What will be the impact on our water sources? Will the marine water be impacted (be polluted) by the exploration drilling activities? What will be done to mitigate these impacts?  | The drillship will operate in strict accordance with both the International Convention for the Prevention of Pollution from Ships (MARPOL, 1973/1978), which prohibits the discharge of trash and regulates the discharge of liquid waste and atmospheric emissions from marine vessels. The primary discharges from the drillship will be drill cuttings, treated wastewater effluent and macerated food waste. Water will be recycled to the extent practical, and sewage will be treated in on-board wastewater treatment units before discharge in accordance with MARPOL and national standards. The support vessels will not be equipped with wastewater treatment facilities but will follow all applicable MARPOL standards. Used oil and other liquid wastes will be stored in sealed containers on board the vessels for disposal at approved facilities onshore. |  |  |  |  |
| Will these activities make me sick? Will there be air pollution?  Emissions to air will be limited to exhaust emissions from the vessels supporting the exploration drill activities. All vessels contracted by Total E&P Liban will be required to follow international and nation requirements with regard to emissions management. |   |  |  |  |  |
| Impacts on livelihoods  |   |  |  |  |  |
| Will the exploration drilling activities damage our fishing facilities and equipment? How will you compensate for any damages?  | To minimise the risk of damage to fishing facilities and equipment, the drill vessel will travel at low speeds and will be supported by guard vessels.  During the exploration drilling activities, there will be a 500 m safety zone around the drill rig. Other vessels will not be permitted to operate within this zone.  In the unlikely event of damage to fishing gear, Total E&P and the exploration drilling contractor, in liaison with the affected parties, will review the damage and negotiate compensation.  |  |  |  |  |

| Total Exploration and Production (E&P) Lebanon Block 4  |   |  |  |  |  |
|---|---|--|--|--|--|
| Question  | Answer  |  |  |  |  |
| Will there be any impacts on fishing in the project area? How will you compensate for the loss of income for those engaged in fishing?  The EBS surveys have thus far demonstrated limited impacts to fishermen. The ESIA report will exam E&P Liban exploration drilling activities and identify measures to prevent, avoid, minimise, mitigate or compensate for any adverse environmental and social impacts.  |   |  |  |  |  |
| Will there be any impact on tourism in the project area? How will you compensate for the loss of income for those engaged in tourism-related jobs?  It is acknowledged that there are tourist activities along the coast of Lebanon. As the closest exploration drilling activity area in Block 4 is 6 km offshore, impacts on tourism in this area are not anticipated.  The ESIA report will examine Total E&P exploration drilling activities and identify measures to prevent, avoid minimise, mitigate or compensate for its adverse environmental and social impacts. |   |  |  |  |  |
| Impacts on cultural heritage  |   |  |  |  |  |
| If the proposed exploration drilling activities go through cultural sites, what will the process be?  | Cultural heritage sites are not anticipated in the offshore survey areas. This will be confirmed during the ESIA process. If you are aware of any cultural heritage sites that may not be officially recognised, please let us know via this email address: ep.tepl-info@total.com  |  |  |  |  |
| Impacts on biodiversity   |   |  |  |  |  |
| Will there be any impacts on biodiversity?  | The EIA report will confirm the potential impacts. As a minimum, industry best practice mitigation will be developed as part of the ESIA.   |  |  |  |  |
| Will there be any impact on critical habitats?  | A critical habitat is a specific geographic area that contain features essential to the conservation of an endangered or threatened species and that may require special management and protection. There are no designated critical habitats in the AOI and the EBS undertaken in March confirms this. The ESIA report will formalise this.                                      |  |  |  |  |
| Will there be any impacts on marine protected areas?  | In terms of the coastal and marine environments, there are only two protected areas: the Palm Islands Nature Reserve (although is not near Block 4) and the Tyre Coast Nature Reserve. Remotely operated vehicle observations during the EBS have found no presence of remarkable species. As a minimum, industry best practice mitigation will be developed as part of the ESIA. |  |  |  |  |
| Will there be any impacts on fauna of tourism value (e.g., whales, dolphins, big fish)?   | The presence of marine mammals has been investigated by marine mammal observers and passive acoustic monitoring operators during the EBS survey. As a minimum, industry best practice mitigation will be developed as part of the ESIA.   |  |  |  |  |

| Total Exploration and Production (E&P) Lebanon Block 4  |  |  |  |  |  |
|---|--|--|--|--|--|
| Question  | Answer   |  |  |  |  |
| Will there be any Ecologically or<br>Biologically Significant Marine Area<br>(EBSA) impacts?  | There are no marine protected areas (MPA) near Block 4. Remotely operated vehicle observations during the EBS found no presence of remarkable species. As a minimum, industry best practice mitigation will be developed as part of the ESIA.  |  |  |  |  |
| Will the exploration drilling activities damage offshore archaeology?   | There are no cultural heritage sites have been identified in the offshore survey areas, the EBS ROV observations confirms this. This will be confirmed during the ESIA process. If you are aware of any cultural heritage sites that might not be officially recognised, please let us know via this email address: ep.tepl-info@total.com   |  |  |  |  |
| Employment and community development  |  |  |  |  |  |
| What will the project bring us in terms of local development?   | Total E&P principally contributes to host societies through revenues, taxes, employment and business opportunities associated with its projects and operations.  |  |  |  |  |
| Will there be an opportunity for local people to get employed in the project? How many people will be employed for the project? Where will the project hire casual labour from? Will jobs be available for skilled, semi-skilled and unskilled workers? | The exploration drilling activities will be carried out by a drilling contractor that employs professionals with specialist skills and qualifications that will be recruited internationally. The project will offer a short -term employment opportunity for a health, safety and environmental officer/community liaison officer. The project will also generate revenue for local businesses, for example, through provision of accommodation and catering services.  |  |  |  |  |
| Will any job training be available to make sure that local people will have access to semi-skilled and skilled positions?   | At this stage, Total E&P Liban is in its exploration phase in Lebanon. During this phase, a limited number of wells will be drilled to assess the availability of oil in the ground. This phase is limited in terms of local employment opportunities. Total E&P Liban will be working closely with the government and other key stakeholders to identify the best opportunities for intervention to equip as many Lebanese workers and enterprises with the right competencies and capabilities to access any potential future opportunities. |  |  |  |  |
| How will Total E&P ensure jobs are shared fairly between the different fractions? Will there be any preference for women, ethnic minorities and vulnerable groups?  | At the early stage that Total E&P Liban is at in Lebanon, opportunity for local employment is very limited. In its hiring decisions, Total E&P follows principles of fairness, diversity and inclusion.  |  |  |  |  |
| Will the drilling contractor purchase food and other resources/services locally?  | During the contractual process, Total E&P Liban will encourage contractors to maximise local procurement where feasible.   |  |  |  |  |

| Total Exploration and Production (E&P) Lebanon  |  |  |  |  |  |
|---|--|--|--|--|--|
| Block 4   |  |  |  |  |  |
| Question  | Answer   |  |  |  |  |
| What plans are in place for corporate social responsibility programmes?   | At this stage in the exploration process, it is not anticipated that large-scale corporate social responsibility programmes will be initiated. However, Total E&P Liban believes that it has a role to play in creating a positive social and economic benefits from its operations. It will work with the relevant stakeholders to identify potential socio-economic investment initiatives that would benefit the people of Lebanon that could be actioned at a later stage if the exploration work leads to a commercial hydrocarbon discovery. |  |  |  |  |
| Consultation and feedback   |  |  |  |  |  |
| How will our views be considered?   | We will ensure that any concerns raised during the consultation process are documented and considered during the ESIA process. The public is invited to review and comment on scoping reports, which are available online at <a href="https://rsklebanon.com/total/blocks4and9/scoping-comments/">https://rsklebanon.com/total/blocks4and9/scoping-comments/</a> . This will be the primary comment method. There will also be a public consultation on 24 May 2019 at the Radisson Hotel, Verdun, Beirut at 10.00 – 13.00.                        |  |  |  |  |
| Will we get any feedback on this consultation?  | When the draft EIA report is prepared, it will be made publicly available for you to review the document and make comments. Your views, opinions and comments will be taken into consideration in preparing the final ESIA report.   |  |  |  |  |
| When will we get formal documents about the project?  | A flyer (background information document) describing the project is provided.  The main public documents relating to the project will be the ESIA report, and a non-technical summary of the ESIA report. It will be made publicly available by the relevant authorities.  |  |  |  |  |
| How will our questions and concerns be answered?  | During the consultation meetings, you will have the opportunity to ask questions and express your concerns to Total E&P Liban and the ESIA team. We will try to answer these questions verbally at the time of the meeting. However, in some cases, we may have to clarify and respond at a later date. Total E&P Liban welcomes feedback at any stage of the project, so please get in touch with us if you have a concern, a grievance or a question at this email address: <a href="mailto:ep.tepl-info@total.com">ep.tepl-info@total.com</a>   |  |  |  |  |
| To what extent will local communities and other affected stakeholders be engaged during the development of the project? | Engagement with local communities and other identified stakeholders has started and will continue throughout the duration of the ESIA process and the exploration drilling activities.   |  |  |  |  |
| Who do we contact if we have any grievances? Will you be the team handling grievances, or will there be new             | Total E&P takes all concerns and complaints from local communities seriously. A community feedback mechanism has been designed to ensure it is free, fair, transparent and user-friendly.  Concerns can be shared directly with Total E&P Lebanon via this email address: ep.tepl-info@total.com   |  |  |  |  |

| Total Exploration and Production (E&P) Lebanon Block 4                     |   |  |  |  |
|--|---|--|--|--|
| Question   | Answer  |  |  |  |
| people for us to talk to during seismic operations?                        |   |  |  |  |
| Data collection  |   |  |  |  |
| What will you do with the information you collect? Will we get to see it?  | The information collected by the ESIA team will be evaluated and proper mitigation measures put in place as required; all the elements will be included in the ESIA report. The draft ESIA and non-technical summary will be made available for you to review and comment before the final ESIA report is prepared and formally submitted to the authorities (MoE and LPA). |  |  |  |
| Why did Total E&P Liban hire an international company to conduct the ESIA? | Total E&P Liban have chosen to engage an internationally experienced team that includes RSK and Lebanese consultancy DAR and INFOPRO to complete the ESIA work. This team of international and national experts will undertake the ESIA (explained above) and ensure that the ESIA is compliant with national and Total E&P standards and international best practice.      |  |  |  |
| Next steps   |   |  |  |  |
| What happens next?   | If the exploration drilling finds commercially viable hydrocarbon reserves, it may be a further 5–10 years until 'first oil' production.  |  |  |  |





#### **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 3.9 Stakeholder Engagement Recording Template











| GENERAL INFORMATION ABOUT THE MEETING |            |           |             |                           |   |              |                |          |
|---------------------------------------|------------|-----------|-------------|---------------------------|---|--------------|----------------|----------|
|                                       |            |           |             |                           |   |              |                |          |
| Meeting (stakeholder met with):       |            |           | Date:       |                           |   |              |                |          |
|                                       |            |           |             | Locati                    | on (include GPS referen                 | ces)         | :              |          |
|                                       |            |           |             |                           |   |              |                |          |
| City/town/vill                        | age who    | ere the i | neeting is  | taking pla                | ce:                                     |              |                |          |
| Administrativ                         | e divisi   | ion (e.g  | ., Caza) ii | n which the               | e city/town/village is locate           | ed:          |                |          |
| Administration                        | n divis    | ion (e.g  | ., Mouha    | f <mark>azat)</mark> in w | hich the Administration di              | visior       | n level 4 is l | located: |
| Number of at                          | tendees    | S:        |             |                           |   |              |                |          |
| Additional in                         | formation  | on as no  | eeded:      |                           |   |              |                |          |
|                                       |            |           |             |                           |   |              |                |          |
|                                       |            |           |             |                           |   |              |                |          |
|                                       |            |           |             |                           |   |              |                |          |
| Provide the                           | followi    | ng infor  | mation fo   |                           | keholders, and stakehol<br>vention      | ders         | who have       | raised   |
| First name                            | Last n     | ame       | Gende       | Disabili                  | Position (if                            | Nar          | ne of          |          |
|                                       |            |           | r (M/F)     | ty (Y/N)                  | appropriate, e.g., administrative head) | organisation |                |          |
|                                       |            |           |             |                           | within organisation                     |              |                |          |
|                                       |            |           |             |                           |   |              |                |          |
|                                       |            |           |             |                           |   |              |                |          |
|                                       |            |           |             |                           |   |              |                |          |
|                                       |            |           |             |                           |   |              |                |          |
|                                       |            |           |             |                           |   |              |                |          |
|                                       |            | 5         | SUMMA       | RY OF T                   | HE DISCUSSION                           |              |                |          |
| Provide                               | here th    |           | _           | _                         | sed by stakeholders a                   | nd tl        | he respon      | ses      |
| . /5//45                              |            |           |             |                           | a follow-up is required                 |              |                |          |
| Issues/ques                           | tions      | Stake     | holder      | Respoi                    | nses (provide the respons               | se           | Respon         | Follow   |
| (Raised l                             | b <i>y</i> |           | and last    | InfoPro gave)             |   | se by        | -up            |          |
| stakeholders/<br>pants)               | partici    | nai       | mes)        |                           |   |              |                | (Y/N?)   |
| pants)                                |            |           |             |                           |   |              |                |          |
|                                       |            |           |             |                           |   |              |                |          |
|                                       |            |           |             |                           |   |              |                |          |
|                                       |            |           |             |                           |   |              |                |          |
|                                       |            |           |             |                           |   |              |                |          |





#### **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 3.10 Visual Record of Meetings











Public Consultation Meeting, Beirut, Lebanon, 24 May 2019.



Scoping Phase Stakeholder Engagement with Municipality Stakeholders, Beirut, 15 May 2019



Scoping Phase Stakeholder Engagement with Government Authorities, Beirut, 15 May 2019



Scoping Phase Stakeholder Engagement with Business Stakeholders, Beirut, 14 May 2019



Baseline Phase Stakeholder Engagement with Anglers in Jbeil, 22 May 2019



Baseline Phase Stakeholder Engagement with Municipality Officials in Saida, 21 May 2019



Baseline Phase Stakeholder Engagement with Youth in Anfeh, 22 May 2019



Disclosure Phase Public Consultation Meeting, Beirut, 19 September 2019



Disclosure Phase Public Consultation Meeting, Beirut, 19 September 2019



Disclosure Phase Public Consultation Meeting, Jbeil, 20 September 2019



Disclosure Phase Public Consultation Meeting, Jbeil, 20 September 2019

# **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 3.11 Attendance Lists

80754









[This page has intentionally been left blank.]

# **Public Consultation Meeting**

# 24/05/2019

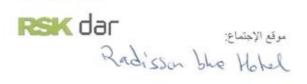




| التوقيع | رقم الهاتف | المؤسسة والمركز (إذا<br>كان ذلك مناسبا") | الموقع إذا كان مختلف<br>عن موقع الاجتماع | الجنس   | الشهرة | الإسم        |
|---------|------------|--|--|---------|--------|--------------|
| 10-     |            | m.lb                                     | Bank Audi                                |         |        | LouiseStatt  |
| g/ses   |            |  | DEP                                      | n       | زهر    | <i>ڪبو</i> د |
| A       |            | TOTAL                                    |  | LEB-    | حدیات  | شريل         |
| Filas   |            | /  | /  | LEB     | الحجار | فراس         |
| Rolle   |            | SMEPS                                    |  | Femile. | مارين  | シン           |
| 1       |            | LPA                                      |  | M       | pi     | ولير         |
| Named   |            | AUB                                      |  | F       | Sayar  | Nancy        |

| التوقيع  | رقم الهاتف | المؤسسة والمركز (إذا<br>كان ذلك مناسبا") | الموقع إذا كان مختلف<br>عن موقع الاجتماع | الجنس  | الشهرة  | الإسم       |
|----------|------------|--|--|--------|---------|-------------|
| Harl     |            |  |  | Nule   | Krowan  | George      |
| Sas      |            |  |  | Female | Jurdi   | Dian        |
| detir    |            | نعتب علي الإسادة                         |  | 55     | سواع    | lip         |
| D.A      |            | Total                                    |  | $\cap$ | Alvarez | Daniel      |
| W 615    |            | Fito-a                                   |  | `^     | Harlax  | 1) a se ; w |
|          |            | ruin                                     |  | Hala.  | Dandach | Hussein     |
| Athor to |            | Interpret                                | 5  | Fenale | Nohu    | Chada       |
| y R      |            | Train<br>Train                           |  | Female | Malkain | Joanna      |









# قائمة حضور الاجتماع

| التوقيع     | رقم الهاتف | المؤسسة والمركز (إذا<br>كان ذلك مناسبا") | الموقع إذا كان مختلف<br>عن موقع الاجتماع | الجنس   | الشهرة | الإسم         |
|-------------|------------|--|--|---------|--------|---------------|
| JE OMHOLING | ,          | Pontus Petrater                          | n  | remale. |        | لدر أنها بحدي |
| A.          | Č          | MoE/WBpoper                              |  | Female  |        | عديا عمال     |
|             |            | Ok G<br>consultant                       |  | Male    |        | Marc Meim     |
|             |            | Phoemeira<br>oil d Cas                   |  | 6       | Perrin | Gilles P      |
| 2           |            | BANK<br>BUDI                             |  | 0       | ASED   | RIGHT         |
| rpole       |            | Ber K Anot                               |  | M       | Malar. | Habil         |
| Sa          |            | operation<br>big blue                    |  | F       | داعر   | منا على علفر  |

| التوقيع | رقم الهاتف | المؤسسمة والمركز (إذا<br>كان ذلك مناسبا") | الموقع إذا كان مختلف<br>عن موقع الاجتماع | الجنس | الشهرة   | الإسم         |
|---------|------------|---|--|-------|----------|---------------|
| gar.    |            | The ocean                                 |  | F     | الحوا د  | \$156         |
| Ja-Hi-  |            | Social Party                              |  | F     | مريز     | 8             |
|         |            | Nakour                                    | Y.                                       | 4     |          | Da, Maren     |
| A.      |            | وزارن الزالة                              |  | M     | Soukaly  | Shady Saikaly |
|         |            | 415/8-1:3                                 |  | N     | N unmoun | Charles       |
|         |            |   |  |       |          |               |
|         |            |   |  |       |          |               |
|         |            |   |  |       |          |               |







TE(時: 37 0 17.7



# قائمة حضور الاجتماع

| التوقيع    | رقم الهاتف | المؤسسة والمركز (إذا<br>كان ذلك مناسبا") | الموقع إذا كان مختلف<br>عن موقع الاجتماع | الجنس | الشهرة  | الإسم      |
|------------|------------|--|--|-------|---------|------------|
| يسرى بيعل  |            | علول الشرية<br>كا قيتمادية               |  |       | بيطا,   | يىرى       |
| 160        |            | و الماء ع                                |  |       | نعر     | Le         |
| Elgodee    |            | Rsk                                      |  | F     | brooker | Ruth       |
| Bank       |            | Engineering &<br>fescurch Intl           |  |       | تعال    | 7          |
| 3.8        |            | Portus Petrolem                          |  | M     | Wagen   | Jeff       |
| طاعة منافئ |            | Ministry of<br>Social Affairs            |  | М     | ميام    | طارق فيادي |
| (140)      |            | アンかっても                                   |  | М     |         | 2911.56    |

| التوقيع | رقم الهاتف | المؤسسة والمركز (إذا<br>كان ذلك مناسبا")        | الموقع إذا كان مختلف<br>عن موقع الاجتماع | الجنس | الشهرة | الإسم  |
|---------|------------|---|--|-------|--------|--------|
| Roll    |            | كان ذلك مناسبا")<br>كها و ليب<br>كهاد بن الحورة |  | لياني | ules   | -54.91 |
|         |            |   |  |       |        |        |
|         |            |   |  |       |        |        |
|         |            |   |  |       |        |        |
|         |            |   |  |       |        |        |
|         |            |   |  |       |        |        |
|         |            |   |  |       |        |        |
|         |            |   |  |       |        |        |



24/05/19

التاريخ:



# قائمة حضور الاجتماع

|   | التوقيع | رقم الهاتف | المؤسسة والمركز (إذا<br>كان ذلك مناسبا") | الموقع إذا كان مختلف<br>عن موقع الاجتماع | الجنس    | الشهرة      | الإسم          |
|---|---------|------------|--|--|----------|-------------|----------------|
|   | m color |            |  |  | Chanese. | Assal       | Mohamad Assel  |
|   | #       |            | phoenicia<br>oil & gas                   |  |          | About Mathi | Tarela         |
|   | ants-   |            | CANR<br>AUDI                             |  | Ceberuse | TARABAY     | Serge F-L      |
| ( | 100     |            | L061                                     |  |          | /           | Anei Harobara- |
| ( | 1       |            | TOTAL                                    |  |          | BARRE       | RICARDO        |
|   | dr      |            | TOTAL.                                   |  | FR.      | Rocké       | LANRENT        |
|   | S       |            | 10701                                    |  | FR T     | BOYER NOT   | CON CASE O     |

| التوقيع | رقم الهاتف | المؤسسة والمركز (إذا<br>كان ذلك مناسبا") | الموقع إذا كان مختلف<br>عن موقع الاجتماع | الجنس | الشهرة    | الإسم        |
|---------|------------|--|--|-------|-----------|--------------|
|         |            | وزاركالبينة                              |  | انثى  |           | دائية ترجمان |
| Junimy  |            | Total                                    |  | F     | Khalifé   | Michiele     |
| il      |            | Teamho                                   |  | M     | Hallad    | Kichel       |
| -tono   |            | pair -                                   |  | F     | El Derbas | Riwa         |
|         |            |  |  |       |           |              |
|         |            |  |  |       |           |              |
|         |            |  |  |       |           |              |
|         |            |  |  |       |           |              |
|         |            |  |  |       |           |              |





موقع الإجتماع:

التاريخ: 24/05/19



Radisson Blu Hotel

# قائمة حضور الاجتماع

| التوقيع         | رقم الهاتف | المؤسسة والمركز (إذا<br>كان ذلك مناسبا") | الموقع إذا كان مختلف<br>عن موقع الاجتماع | الجنس | الشهرة  | الإسم   |
|-----------------|------------|--|--|-------|---------|---------|
| space           |            | LPA                                      |  | F     | fachi'd | grace   |
| Story           |            | Dar                                      |  | F     | Hojaij  | Sima    |
| Dw.             |            | I LPA intern                             |  | F     | Nam     | Zeina   |
| Eddy            |            | Student                                  |  | LEB   | 9025    | ا د ي   |
| miche 18 aucher |            | - AUB                                    |  | M     | BARICHE | Michel  |
| 09              |            | Total                                    |  | Ł     | Zhis    | Calmi   |
| 3               |            | ELARD                                    |  | М     | Kherry  | Ticardo |







| First name    | Last name  | Gender | Locality if<br>different from<br>meeting<br>location | Organisation and position (if appropriate) | Telephone number | Signature |
|---------------|------------|--------|--|--|------------------|-----------|
| SIGNAIZ       | BOURRIUM   | 4      |  | TOTAL                                      |                  | ON A      |
| Lei Ca        | AL-HAYOVII | 5      |  | POTAL                                      | ,                | 22/1      |
| Kale Backball | RSK        | F      | UK.  | RSK  |                  | KJ.       |
| Mia Wase      | Nass       | F      |  | Dar  |                  | J.        |
| Ruth Brooker  |            | F      | UŁ   | RSK  |                  | Falgorice |
| Sima          | Hojoij     | F      | Beiruh   | Dar  |                  | sugues.   |
| Riwa          | Delbas     | F      | Beint  | Der  | •                | SAP.      |
| Parine        | Maw Ca     | F      | Beirut   | LPA  |                  | Store     |
| Yuena         | Potar      | F      | Beinit   | Consultant                                 |                  | Jura Poh  |
| Kar           | HAMBOE     | M      | 5  | Consultant                                 |                  | Very Hand |
| 1             | حبدالله    | M      | をありまり  | دغب العيادي                                |                  | 950       |

| First name   | Last name | Gender | Locality if<br>different from<br>meeting<br>location | Organisation and position (if appropriate) | Telephone number | Signature |
|--------------|-----------|--------|--|--|------------------|-----------|
| Nobest Which | attick    | M      | 6195   | رسيسرا نعاونيا                             |                  | dot       |
| Ahmap        | AKRA      | М      | المينام  | رئست تعاون                                 | ,                |           |
| ABDALA       | TAKA      | H      | ا لمينا د  | عضومهملس                                   |                  | 5         |
| عبداكراف     | محدفالا   | H      | sue 1. Crim  | رنبی نعاولیم'                              |                  | 1.17      |
| Sle          | المصري    | M      | 7 9  | وكيل العاوله                               |                  | and the   |
| ine          | e see!    | М      | NM   | عانو النعاري                               | 1                | 01/3      |
|              |           |        |  |  |                  |           |
|              |           |        |  |  |                  |           |
|              |           |        |  |  |                  |           |
|              |           |        |  |  |                  |           |
|              |           |        |  |  |                  |           |
|              |           |        |  |  |                  |           |

# **Government Authorities**

# 15/05/2019



Date: Meeting Location: Radison Blu Hetel

Murming Sesson 9:30-12:00

Meeting Attendance List



| First name | Last name | Gender | Locality if<br>different from<br>meeting<br>location | Organisation and position (if appropriate) | Telephone number | Signature |
|------------|-----------|--------|--|--|------------------|-----------|
| Stephanie  | Mouborak  | F      |  | batroun's municipality                     |                  | SV        |
| Mazeu      | Sakr      | M      |  | General Security                           | •                | #         |
| Ros        | Ali Nader | M      |  | Palice Batron miceple                      | ,                | SK.       |
| yusra      | Pota      | F      |  | Conentant                                  |                  | Mon (4    |
| Ruth       | Brooker   | F      |  | RSK  |                  | Jugroder  |
| Mia NAST   | Nasr      | F      |  | Dar  |                  | the       |
| Nicolas    | Nassan    | М      |  | Peternere Custons                          |                  |           |
| Scher      | Ahmed     | М      |  | Lebenese Homo                              |                  | 500       |
| ean Claude | El Khazen | M      |  | Ministry of Labor                          |                  | -JC/P     |
| Joulyne    | El Khazen | F      |  | Ministry of Finance                        |                  | de for    |
| Davine     | Manla     |        |  | LPA  | ,                | Alle .    |







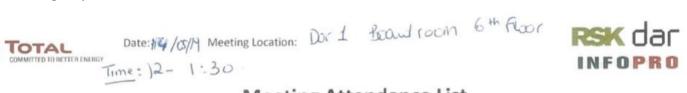




| First name  | Last name | Gender | Locality if<br>different from<br>meeting<br>location | Organisation and position (if appropriate) | Telephone number | Signature |
|-------------|-----------|--------|--|--|------------------|-----------|
| LAURENT     | ROCHE     | M      |  | TOTAL                                      |                  | La.       |
| Sima        | Hojaij    | f      | Dow  | Dar  |                  | C-Wi      |
| Sona        | Callita   | 6      |  | Ministry of                                |                  | 3 Donas   |
| Midule      | Khalifi   | F      |  | Fotal Total                                |                  |           |
| Mohamad     | NAHLE     | M      |  | D.G.L.M.T                                  |                  | Juni.     |
| General Su- | Kell FSI  |        |  |  |                  | 74        |
| ELIE        | EL JBEILY | M      |  | NAVY                                       |                  | - IN      |
| Marwan      | Kdsrosly  | M      | Der  | Director of Operation                      |                  |           |
| Leila       | Al-Hayand | F      | TOTAL  | TOTAL                                      |                  | Jank.     |
| Francois    | Bourillon | M      |  | TOTAL                                      |                  | 2/2       |
| Riwa        | Derbas    | F      | Beirut   | Dar  |                  | 200       |

| First name  | Last name  | Gender  | Locality if<br>different from<br>meeting<br>location | Organisation and position (if appropriate) | Telephone number | Signature |
|-------------|------------|---------|--|--|------------------|-----------|
| Sleavac     | Calitare X | or lett | We Ly I  |  | 7                | 4         |
| Corneral. N | Ohomas K   | nelit   |  |  | 5                |           |
|             |            |         |  |  |                  |           |
|             |            |         |  |  |                  |           |
|             |            |         |  |  |                  |           |
|             |            |         |  |  |                  |           |
|             |            |         |  |  |                  |           |
|             |            |         |  |  |                  |           |







| First name  | Last name | Gender | Locality if<br>different from<br>meeting<br>location | Organisation and position (if appropriate) | Telephone number | Signature |
|-------------|-----------|--------|--|--|------------------|-----------|
| Sima        | Hojaij    | F      | Dar  |  |                  | - lups    |
| UMS. or     | Poter     | Ŧ      | Considerat   | 3.   |                  | Upor Br   |
| Ruth        | Bizoker   | P      | Vic  | RSIC                                       |                  | Buler     |
| MIG         | Nasr      | F      | Dar  |  |                  | Men       |
| Care Botach | Blacklock | F      | RK   | RSK  |                  | u         |
| CONVOSA     | Bura Lion | 1      |  | Salaz                                      |                  | SP        |
| Lei Ca      | AL HAYOUT | F      | DAR  | TOTAL                                      |                  | Le &      |
| Toni        | Amouth    | M      | Lebonan  | 110  |                  | Sui       |
| Riwa        | Deiboo    | F      | Leb.   | Dal  |                  |           |
| Darine      | Mawla     | F      | Beirw  | LPA  |                  | -         |
| LAURENT     | ROCHE     | 9      | Beinr  | TOTAL                                      |                  | dr        |





# Date: \\$\sigma\_{\sigma\_{\text{Meeting Location:}}} \cdot\ 30 - 4:00 \\ \text{Meeting Location:} \text{Meeting Location:} \\ \text{Meeting Attendance List}

|                | 0         |      | Locality if<br>different from<br>meeting<br>location | Organisation and position (if appropriate) | Telephone number | Signature  |            |
|----------------|-----------|------|--|--|------------------|--|------------|
| Havoun         | Clakkow   | Male | M  | durici polih ka                            |                  | The same of the sa |            |
| Elie           | Hooderd   | Male |  | Humajality Gl                              |                  | - (1)  |            |
| Fady           | Recity    | Male |  | Marricip Gho                               |                  | 4 Comp   | an.        |
| Antomo         | Narr      | Mule |  | Municipality of Dorne                      |                  | 0  |            |
| Kak            | BLACKIOCK | F    | UK   | RSK  |                  | ICS.   |            |
| Ruth           | Brocker   | F    | UK   | RSK  |                  | Brooker  |            |
| Sima           | Hojaij    | F    |  | DAR  |                  | Color  |            |
| Ma             | Wasc      | F    |  | Da   |                  | 100  |            |
| Davine         | Manle     | F    |  | LPA  |                  |  |            |
| De Egy Churses | los n.    | М    |  | Munici Koulaga                             |                  | 200=   | بجتة را سا |
| Antonio Taraba | /         | M    |  | Municipality Solra                         |                  | Man 9.   |            |

| First name | Last name | Gender | Locality if<br>different from<br>meeting<br>location | Organisation and position (if appropriate) | Telephone number | Signature |
|------------|-----------|--------|--|--|------------------|-----------|
| Marwan     | Koposla   | M      |  | Dar  |                  |           |
| Borge      | Witovar   | X      | Biril Burrow   | Tunicipality                               | 4                | Phurwar   |
| as eibbe   |           |        | 1626   | اسم الدليم                                 | ,                | 70        |
| 1Rip 3.5   |           | M      | النافرري   | swo súes                                   |                  | 190       |
| Riwa       | Derbas    | F      | Beirut   | Dav  |                  |           |
|            |           |        |  |  |                  |           |
|            |           |        |  |  |                  |           |
|            |           |        |  |  |                  |           |
|            |           |        |  |  |                  |           |
|            |           |        |  |  |                  |           |
|            |           |        |  |  |                  |           |
|            |           |        |  |  |                  |           |

# 14/05/2019







| First name  | Last name | Gender | Locality if<br>different from<br>meeting<br>location | Organisation and position (if appropriate) | Telephone number | Signature  |
|-------------|-----------|--------|--|--|------------------|------------|
| Nancy       | Sayor     | F      |  | AUB - Remarde                              |                  | Mond       |
| Eng. I flet | Ehiss     | F      |  | Operator By Blue                           |                  | TE         |
| Sima        | Hojorij   | F      | Dour   |  |                  | chy.       |
| Ruth        | Brooker   | F      | UK   | RSK  |                  | Boder      |
| Kate        | BLacklock | F      | UK   | RSK  | 1                | News.      |
| Vuore       | Pistor    | P      |  | Consorbant                                 |                  | Iran Bay   |
| Kanj        | Hamevell  | M      |  | Coverlet                                   |                  | Very Hundo |
| Nia         | Nasr      | F      | Dar  |  | Ş                | Lles       |
| Eranjus     | marismus  | 1      | DAR  | SWINT                                      |                  | d          |
| davies      | ROCHE     | 7      | Total.   |  |                  | dr.        |
| Dona        | Kaisy     | F      | Der  | 1061                                       |                  | 1          |

| First name | Last name   | Gender | Locality if<br>different from<br>meeting<br>location | Organisation and position (if appropriate) | Telephone number | Signature     |
|------------|-------------|--------|--|--|------------------|---------------|
| Nour       | Nucharafieh | F      |  | Geoffint Senior Environ Consultant         |                  | Ne            |
| Christelle | El Hayek    | F      |  | LOGI (project                              |                  | Oristolledous |
| ZiAD       | SAMAHA      | M      |  | TUCK ROWA<br>Rog. Marger                   |                  | 8             |
| Riva       | Derbus      | 5      | les  | Dar  |                  |               |
| Leng       | Al Kan &    | . 8    | DAR  | TOTAL                                      |                  | 1             |
| Davine     | You &       | F      | Beirut   | LPA  |                  |               |
| Jina       | Talj        | F      | Beirut   | Diavies of Medica                          |                  | 6 Julya       |
| ALE        | DARWISH     | П      | a  | Green Line.                                |                  | Alisaw        |
| Habib      | Madeul      | M      |  |  |                  | -             |
|            | ,           |        |  |  |                  |               |
|            |             |        |  |  |                  |               |
|            |             |        |  |  |                  |               |
|            |             |        |  |  |                  |               |

| TOTAL                      |
|----------------------------|
| COMMITTED TO BETTER ENERGY |

Date: 23/05/2019. Meeting Location: The: 1-Women dar Dar Al-Handasah Consultants (Shair and Partners) s.a.f.

| First name | Last name | Gender | Locality if<br>different from<br>meeting location | Organisation and<br>position (if<br>appropriate) | Telephone number | Signature |
|------------|-----------|--------|---|--|------------------|-----------|
| Joelyne    | Abi ched  |        |   | *  |                  | focetyne  |
| Ragheda    | chedid    |        |   |  |                  | Jane 1    |
| Sonia      | Sagra     |        |   |  | -                | Suck      |
| Joelyn     | Richani   |        |   |  |                  | Joseph.   |
| Miled      | matar     |        |   |  |                  | Halay     |
| Gilbert    | Saker     |        |   |  |                  | A         |
| Mora       | Marar     | *      |   |  | _                | 2100      |
| Ebl-issam  | Mansour   |        |   |  |                  | thusan    |
| Houda      | hhalite   |        |   | 1  | _                | #         |
| Danielle   | Antouri   |        |   | ř.   | ļ.,              | Dame      |
|            |           |        |   |  |                  | >         |
|            |           |        |   |  |                  | ,         |
|            |           |        |   |  |                  |           |

23/05/2019







Ali Atat

Date: 22 Hay 2019 Meeting Location: Enfeh Hara shark, ya Resturant

Meeting Attendance List

| First name | Last name | Gender | Locality if<br>different from<br>meeting location | Organisation and position (if appropriate) | Telephone number | Signature  |
|------------|-----------|--------|---|--|------------------|--|
| Rania      | Fares     | P      |   |  |                  | Aus.   |
| Clavie     | Creige    | F      |   |  |                  | Claire   |
| Mariane    | Khabbaz   | F      |   |  | -                | Marians  |
| Christina  | Damaa     | F      |   |  | 1                | Chuha  |
| Joelle     | Tannous   | F      |   |  | 1                | Belle  |
| Rita       | AP-Khawy  | F      |   |  |                  | leto   |
| Jessica    | Outagek   | F      |   | -  |                  | Jestifico  |
| Rima       | H abbak   | E      |   |  |                  | Patraces.  |
| Lynn       | Dayaa     | F      |   |  |                  | The state of the s |
|            |           |        |   |  |                  | ,  |
|            |           |        |   |  |                  |  |
|            |           |        |   |  |                  |  |

# 21/05/2019

# **FGD Fishing Households (Women)**



Date: 21 May 2019



# Meeting Location: Okaibeh Mwicipality Meeting Attendance List

|                 |        | different from<br>meeting location           | Organisation and position (if appropriate) | Telephone number                                       | Signature  |
|-----------------|--------|--|--|--|--|
| Saylaa          | Female |  |  |  | Horales  |
| Malar           | Female |  |  |  | Market.  |
| Wazzi<br>Vicuzi | Female |  |  |  | May in the   |
|                 |        |  |  |  | Marin (1)   1  |
|                 |        |  | ,  |  |  |
|                 |        |  |  |  | ,  |
|                 |        |  |  |  |  |
|                 | Matar  | Matar Female<br>Matar Female<br>Wazzi Female | Matar Female  Matar Female  Wazzi Female   | Matar Female  Matar Female  Wazzi Female  Yazzi Female | Matar Female  Matar Female  Wazzi Female  Yazzi Female |



Ali Atak Date: 21 May 2019

Meeting Location: Anfeh Hara Charkeya



| First name | Last name | Gender | Locality if<br>different from<br>meeting location | Organisation and position (if appropriate) | Telephone number | Signature  |
|------------|-----------|--------|---|--|------------------|------------|
| Dolla      | Abboudi   | Female |   | ,  |                  | (V)        |
| Marline    | Faces     |        |   |  |                  | -tour.     |
| Amal       | Dayaa     |        |   |  |                  | اعل العسوي |
| Tina       | Dayaa     |        |   |  |                  | Leiling    |
| laila      | Joeish    | *      |   |  |                  | یادی بونفی |
| Georgette  | Sarkis    |        |   |  |                  | جرما برس   |
| Sabah      | Youniss   |        |   |  |                  | 12 2 tu    |
| Brighte    | Nemes     |        |   | ,  | ф4               | زازة الو   |
| Hind       | Faces     |        |   |  | C                | Cle ina    |
| Tana       | Faces     | -      |   |  | t                | 16.106     |
| ·          |           |        |   |  |                  |            |
|            |           |        |   |  |                  |            |

| TOTAL     | AL<br>TO BETTER ENERGY |       | 4       |                   |
|-----------|------------------------|-------|---------|-------------------|
| okaibeh   |                        |       | 05/2019 | Meeting Location: |
| fisherman | Harson;                | Jaber | Meetii  | ng Attendan       |



| First name | Last name | Gender | Locality if<br>different from<br>meeting location | Organisation and position (if appropriate) | Telephone number | Signature |
|------------|-----------|--------|---|--|------------------|-----------|
| Rabih      | othomas   | M      |   |  | 1                |           |
| Dean       | Houral    | M      |   |  | C                | 3         |
| Joseph     | Merhi     | M      |   |  | ,                | April of  |
| Toni       | matar     | M      |   |  | 9                | 1,300     |
| Zakhya     | Bairtaa   | M      |   |  | 1                | Polo 1    |
| Zakhya     | AZZi      | M      |   |  | 6                | dettip:   |
| Sami       | Matar     | M      |   | 90<br>90                                   | 5                | -         |
| Hanna      | Al Zaylaa | M      |   | ÿ.   | }                | 100       |
| Alfred     | Naso      | M      |   |  | ( ) ( ) - ( )    | 1771      |
|            |           |        |   |  |                  | ,         |
|            |           |        |   |  |                  |           |
|            |           |        |   |  |                  |           |





| First name | Last name | Gender | Locality if different from meeting location | Organisation and position (if appropriate) | Telephone number | Signature |
|------------|-----------|--------|---|--|------------------|-----------|
| Bassam Rac | Faces     | M      |   | ,  |                  | Chi PL    |
| Edmond     | Faces     | M      |   |  |                  | too       |
| Shauli:    | Doumit    | M      |   |  | (                | A.        |
| Saad       | Al Jayaa  | M      |   |  |                  | d         |
| Issam      | Treish    | · M    |   |  |                  | 228 3100  |
| milhael    | Al Jayan  | M      |   |  | ·                | DIS.      |
| Jebrayel   | Sabour    | M      |   |  |                  | aluino,   |
| Bahly      | Al Atail  | M      |   | ,  |                  | sys       |
| 0          |           |        |   |  |                  |           |
|            |           |        |   |  |                  | ,         |
|            |           |        | -   |  |                  |           |
|            |           |        |   |  |                  |           |



Hasson Jaber

Date: 22/05/2019

E de

dar Der Al-Handasseh Committente

# Meeting Attendance List

Meeting Location:

| First name  | Last name   | Gender | Locality if<br>different from<br>meeting location | Organisation and position (if appropriate) | Telephone number | Signature |
|---|-------------|--------|---|--|------------------|-----------|
| Modor   | Tales.      | M      |   |  | 0 )5             | 7 Ales    |
| Mattmand  | Auriza      | M      |   |  | c                |           |
| Haithan   | Auerra      | M      | . A   | ÷  |                  | -         |
| hhalil  | Taleb       | A      |   |  |                  | 6         |
| Ahmad   | moshermenho | in 1   |   |  | 6 5              | LAL       |
| Monral  | Elhar       | N      |   |  | 7                | May .     |
| Nagr  | EIL         | M      |   |  | c                |           |
| Abeld   | Whales      | M      |   | 6  | - 1              |           |
| Mostata   | Soutan      | M      |   |  | c                | Com       |
| VIII. |             |        |   |  |                  | ,         |
|   |             |        |   |  |                  |           |
|   |             |        |   |  |                  |           |



Date: 29/65/2015 Meeting Location: 29/65/2019 Dar Ai-Handasah Consultants (Shair and Partners) s.a.l.

Chekka - Rishes man

Meeting Attendance List

|      | First name | Last name | Gender | Locality if<br>different from<br>meeting location | Organisation and position (if appropriate) | Telephone number | Signature   |
|------|------------|-----------|--------|---|--|------------------|-------------|
|      | Issam      | AL ATIK   | M      | _   |  |                  | 4 7         |
|      | Toni       | Assaf     | M      |   |  | (                | Caspo       |
|      | fares      | Diab      | N      |   |  | (                | - 150       |
|      | Elias      | mousa     | M      |   |  |                  | الما الما ا |
|      | Wall       | botros    | M      |   |  |                  | وليد        |
|      | Jean       | bolon     | M      |   |  |                  | Spla        |
|      | Torch      | Salah     | M      |   |  | 4                | Slende      |
| ssef |            | brahm     | M      |   | ,  | C                | A-16 2      |
|      | Reston     | Daher     | M      |   |  | C 11 202         | A6:1        |
|      |            |           |        |   |  |                  | ,           |
|      |            |           |        |   |  |                  |             |
|      |            |           |        |   |  |                  |             |



Harrier John Meeting Location: J

|       |             | INFOPRO  |
|-------|-------------|--|
| Theil | - Pishardar | ar Ai-Handasah Consultants<br>Shair and Parthers) s.a.t. |

| Last name | Gender                                     | Locality if<br>different from<br>meeting location | Organisation and<br>position (if<br>appropriate)                    | Telephone number   | Signature  |
|-----------|--|---|---|--|--|
| Zaylaa    | M  |   |   |  | all the  |
| Matar     | H  |   |   | 4  | \$   |
| merhi     | M  |   |   | <u>.</u>   | 50 JIC   |
| matac     | M  |   |   |  | -245   |
| Decealthe | M  |   | X. X.   | _  |  |
| El Kouba  | H  |   |   |  |  |
|           | 90   |   |   |  |  |
|           |  |   |   |  |  |
|           |  |   |   |  | · · · · · · · · · · · · · · · · · · ·  |
|           |  |   |   |  |  |
|           |  |   |   | <del> </del>   |  |
|           |  |   |   |  | *  |
|           | Zayloa<br>Matar<br>Matar<br>Marhi<br>Matar | Zayloa M<br>Matar H<br>Merhi M                    | different from meeting location  Zaylaa M Matar M  Merhi M  matar M | different from position (if appropriate)  Zaylaa M Matar M  Matar M  matar M | different from position (if appropriate)  Zaylaa M  Matar M  Marhi M  markac M |



Date: 30/05/2019 Meeting Location: fisherman - Obayeh

| First name | Last name  | Gender | Locality if<br>different from<br>meeting location | Organisation and position (if appropriate) | Telephone number | Signature  |
|------------|------------|--------|---|--|------------------|--|
| Jonas      | El Dech    | M      |   |  |                  | TUBLE  |
| El ie      | Che diac   | M      | 1 100   |  | δ,               | Con Other  |
| Simon      | Sabor      | М      | *   |  |                  | A STATE OF THE STA |
| Elia       | Nassrallah | M      |   |  |                  |  |
| Edoural    | Dora       | M      |   |  | - 2              |  |
| Samir      | hhacran    | M      |   |  | +                | 29   |
| Youssel    | foursel    | - M    |   |  | (                | To fela  |
| Tond       | harb       | M      |   |  | +                |  |
| Antoine    | Nehme      | NI     |   |  |                  | Just Buellin   |
|            |            |        |   | ,  |                  |  |
|            |            |        |   |  |                  | ,  |
|            |            |        |   |  |                  | ,  |

| First name | Last name | Gender | Locality if different from meeting location | Organisation and position (if | Telephone number | Signature |
|------------|-----------|--------|---|-------------------------------|------------------|-----------|
| leryes     | Prosperi  | Ude    | meeting location                            | appropriate)                  |                  | 1         |
| hillipe    | Al Hout   | Male   |   |                               |                  | -565      |
| eorge      | Boino     | Male   |   |                               |                  | R         |
| an         | FI Hawa   | Male   |   |                               |                  |           |
| ny &       | Salane    | Male   |   |                               |                  | 8         |







### **Meeting Attendance List**

| First name | Last name | Gender | Locality if<br>different from<br>meeting location | Organisation and position (if appropriate) | Telephone number | Signature |
|------------|-----------|--------|---|--|------------------|-----------|
| Joseph     | Gaby      | M      | ٥   |  | c 4              | 0199      |
| Nagy       | Merhi     | M      |   |  | c E              | (Hed      |
| rlus afa   | Fadil     | M      |   | * *  | 7 30             | 2         |
| Peter      | Saad      | M      |   |  | 7 30             | g A       |
| Elje       | Baddour   | M      |   |  | 4                | all       |
| Ibalian    | Damlakhi  | H      |   |  | 63 611015        | C.        |
|            |           |        |   |  |                  |           |
|            |           |        |   | 7  |                  |           |
|            |           |        |   | E 80                                       |                  |           |
|            | 30        |        |   |  |                  | ,         |
|            |           |        |   | 4  |                  |           |
|            |           |        |   |  |                  |           |

| Jounieh |  |  | 23/05/201     | 19  |  | FGD Angler       | s   |
|---------|--|--|---------------|---|--|------------------|---|
|         | TOTA COMMITTED TO 8                                  | ETTER ENERGY Date: 2                                 | 3 May         | Meeting Lo  | ndance List                                | II Allera or     | NFOPRO  Handasah Consultanta and Partnersl s.a.l. |
|         | First name   | Last name  | Gender        | Locality if<br>different from<br>meeting location | Organisation and position (if appropriate) | Telephone number | Signature   |
|         | Crongs Rong Joseph Moughwigh Elias Chiotian Southair | Hardini Navif Cheborbi Antoine Olaalort Nadort Zimne | 2 6 7 7 2 7 7 | Joursel   |  |                  | Ruy   |
|         |  |  |               |   |  |                  |   |



Date: 30/05/2019 Meeting Location: Dhayeh - Anglers dar Dar Al-Handasah Consultanta (Shair and Purtners) s.a.t.

| First name | Last name | Gender | Locality if<br>different from<br>meeting location | Organisation and position (if appropriate) | Telephone number | Signature  |
|------------|-----------|--------|---|--|------------------|--|
| David      | Attallah  | M      |   | *  |                  | 13   |
| Abbondi    | maallem   | M      |   | 7  |                  | Mond.  |
| George     | El Money  | M      |   |  |                  | The state of the s |
| Imal       | mezher    | M      |   |  |                  | A PARTIES  |
| Elle       | hhalil    | M      |   |  |                  | Teld ald   |
| Roland     | Mahhlout  | M      |   |  |                  |  |
|            |           | х.     |   |  |                  |  |
|            |           |        |   |  |                  |  |
|            |           |        |   |  |                  |  |
|            |           |        |   | ,  |                  |  |
|            |           |        |   | -  |                  |  |
|            |           |        |   |  |                  | ,  |
|            |           |        |   |  |                  |  |

#### **KII Attendance Sheets**







Date:

### **Meeting Attendance List**

| ale.    | First name | Last name  | Gender | Locality if<br>different from<br>meeting location | Organisation and<br>position (if<br>appropriate) | Telephone number | Signature    |
|---------|------------|------------|--------|---|--|------------------|--------------|
| 1105/19 | Samir      | OUNAS      | Male   | Municipality of Sake                              |  |                  | Squir Occess |
| 1/05/19 | George     | Sand       | Hale   | Nunicipality of Safra                             |  |                  | All          |
|         | Kabalan    | ER ACRIVON | Male   | on apolity  |  |                  | Th           |
| 115/19  | Joseph     | Bucache    | Nele   | OKaibi.   |  | 0 2              | ATTE         |
|         | Antomi     | Issa       | 3      | Anichet   |  | .0 2             | 45           |
| 2105/19 | Wissam     | ZAM ROJR.  | Olale. | Byblos  | -  | t 2              | Time         |
|         | Rodique    | BASSIC.    | Male   | Fider   |  | 0                | All 111      |
| 3/05/19 | Abdo       | ZOGHBÍ     | Mell   | Dbaye   |  | Enganne /        | 11           |
|         |            |            |        |   |  |                  | 1 (          |
|         |            |            |        |   |  |                  |              |
|         |            |            |        |   |  |                  |              |
| L       |            |            |        |   |  |                  |              |







Date:

Meeting Location:

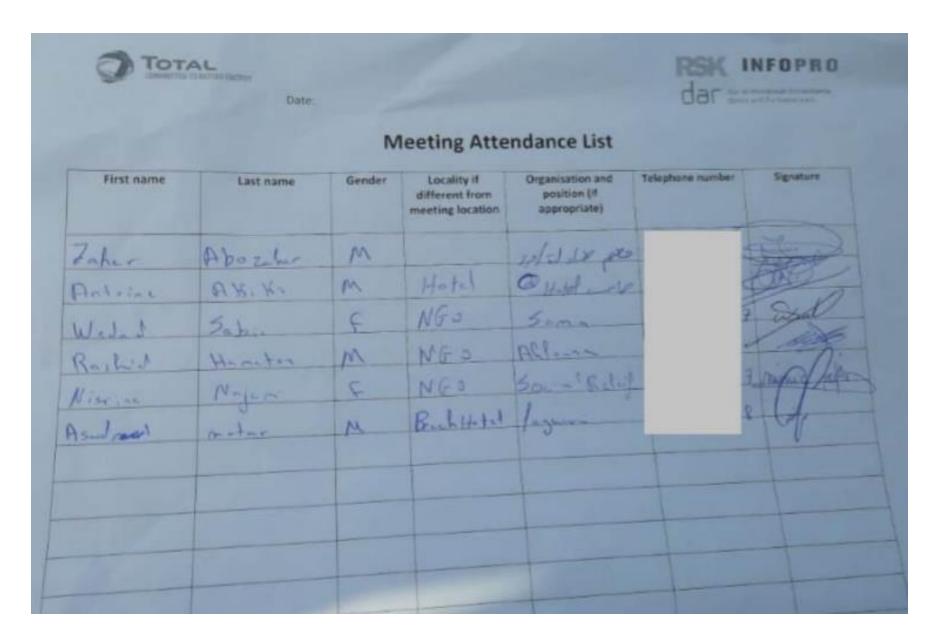
### **Meeting Attendance List**

|          | First name    | Last name   | Gender  | Locality if<br>different from<br>meeting location | Organisation and<br>position (if<br>appropriate) | Telephone number | Signature |
|----------|---------------|-------------|---------|---|--|------------------|-----------|
| 109/2019 | Dr Grbran     | Karnaosni   | 11.     |   | President Ass                                    | - Le co          | a         |
| 1011208  | TANA ZAKAN    | Safer_Leban | one for | Byblos  |  | C C              | Ta 9      |
| 105/200  | Kassan Ghanla | - Chaalan   | M       | Hazmien<br>Beinet                                 | Owner Trace Blue nor                             |                  | Messon    |
| 02/390   | Philippe      | TABET       | 1)      | Gerrary   | DWILL DA TILLES                                  | 6-47-10-7        |           |
|          |               |             |         |   |  |                  |           |
|          |               |             |         |   | . 14   |                  |           |
|          |               |             |         |   |  |                  |           |
|          |               |             |         |   |  |                  |           |



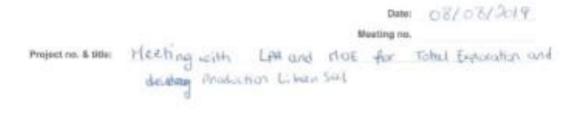


| Fire           |              | 1/     | reeting Atte                                      | endance List                               |                  |           |
|----------------|--------------|--------|---|--|------------------|-----------|
| First name     | Last name    | Gender |   | Tarree List                                |                  |           |
| Rabih          | Hoji Aei     | Gender | Locality if<br>different from<br>meeting location | Organisation and position (if appropriate) | Telephone number | Signature |
| Ahmad          | Kannoneddine |        |   | SAM  | £                |           |
| EARMALIA       | Kforky       |        |   | a mil ( )                                  | Λ                | 1         |
| Marcellino     | Hark         |        |   | 0 0  | 9                | 11 3      |
| D. R. Kalek AL | A L'ESSOS    |        |   |  |                  |           |
| R. Abdulrahim  | IBRAHIM      |        | 9   | استام إلى مه الله                          | C                | A.        |
| TARAL          | AMINE        |        |   |  | 5                | 4ml       |
| Abou Sbra      |              |        |   |  |                  | 7         |
| Naim           | Awad         |        |   |  |                  |           |
| Wissam         | Makhoul      |        |   | General Younge                             |                  | Mal       |
| Han Haral      | Nader        |        |   | المن المم                                  | )                | 卷上        |
| 9,100          | صارك         |        |   | رئيس نقاع ري                               |                  | 9         |
| Rafic Maroun   | #            |        |   | رئيسي تعادية                               |                  | -         |
| Ahmad Halaw    |              |        |   | الميادين ع                                 | 3                |           |
|                |              |        |   | البعرية                                    |                  |           |
|                |              |        | 1   | DPNA                                       |                  |           |



#### **Additional Baseline Stakeholder Engagement Meetings**

### Attendance sign-in sheet



| Name                  | Signature  | Company |
|-----------------------|------------|---------|
| AGUM CHEHAVES         | 104        | TOTAL   |
| ( Bruch Laby          | W.         | - FOXOT |
| L ROUNE               | de         | THITH   |
| ASSEM Chan Ibalian    | Sand ()    | LPA     |
| Nothalia Yaram        | nother     | TIL     |
| Xama Hofames -        | -          | H∘E     |
| Dame Mawla            |            | LPA     |
| Elahhaji Albou Chuksa | Statistics | MoE     |
| Nou sardouk           | ME         | Dar     |
| Sima Hoteli           | Co Marie   | Dar     |
| appen fisched         | 4000       | LPA     |

|                      |                            | Date: 19/03/2019            |
|----------------------|----------------------------|-----------------------------|
|                      |                            | Meeting no. $2$             |
| Project no. & title: | Data Collection at Nationa | 1 letel with CNRS (Geology) |
|                      | RSK                        | dar                         |

Time: 11:00 gm - 11:45 am/pm

TOTAL

Location: CNRS offices (RS dprtm)

| Name  | Signature | Company                          |
|---|-----------|----------------------------------|
| Amin Shaban<br>River El Delbas<br>Sima Hojaij | Ashaban   | Dar Al Handord<br>Dar Al Handord |

| Project no. & title: Data Colle | ction at National Level | Meeting no. 1 with CNRS (RS) |
|---------------------------------|-------------------------|------------------------------|
| TOTAL                           | RSK                     | dar                          |
|                                 |                         |                              |
| 10 Set 11:00 Get                | m/pm                    | Location: CNRS (RS) dept 3"  |
| Name  Name  Add Abdedle         | Signature               |                              |

| Project no. & title: Data |  | Collection at National wildlife | Date: 20/08/2019  Meeting no. 3  Level with MOA. Depof fisherie |
|---------------------------|--|---------------------------------|---|
| TOTAL                     |  | RSK                             | dar   |

Time: 10 am - 12:00 pm am/pm

Location: MOA offices. Depot fisher and wildlike.

| Name           | Signature | Company              |
|----------------|-----------|----------------------|
| THAN LAHOUN    |           | Himsely of a quinter |
| Sima Hojaij    | Shug      | Dar Al Hondorsh.     |
| Rawn El Derbas | 9         | Lowbratt M. Dall     |

Date: 21/08/2019

Meeting no. L

Project no. & title: Data Collection at National Level with Mac ( DGA)



Time: 9:00 am am/pm Location: DGA offices

| Name  | Signature | Company  |
|---|-----------|--|
| Sima Hojaij<br>PIANIA ZAVEN<br>Piwa El Derbas | Se mojeur | Dar Al Handash  Dar Al Handash  Dar Al Handasa |

| Date: | 21 | 1081 | 19 |
|-------|----|------|----|
|-------|----|------|----|

Meeting no.

Data Collection at National Level with SLOEW Project no. & title:







1:00pm-

am/pm

Location: MoEW offices

| Name   | Signature  | Company          |
|--|--|------------------|
| Sima Hojaij<br>Richel-Truge Redlej<br>River El Derlins | Serving Servin | Don Al Handonson |

Date: 33 08 2019
Meeting no. 7

Data collection at National Level with CNRS. Project no. & title:



11:00-12:30 am/pm Time:

Location: CNRS Offices

| Name                          | Signature | Company                   |
|-------------------------------|-----------|---------------------------|
| Mia Nasr<br>Miled FAKHRI      | O.        | Dar AP Hondasoh<br>ONRS-L |
| Alex SURSOCK<br>Riwa El Derbu | Misseln   | Der Al Handorch           |

|                      |      |            |    |           | Date: 24/<br>Meeting no. 9 | 03/2019 |
|----------------------|------|------------|----|-----------|----------------------------|---------|
| Project no. & title: | Data | Collection | at | Nation al | Level with                 | (MOPWT) |
| TOTAL                |      |            |    |           | da                         | ۲       |

Time: 10:00 -11:00 am/pm Location: DGLMT office

| Name   | Signature | Company                          |
|--|-----------|----------------------------------|
| Sima Hojaij<br>Eng. Hohamad Nahle<br>R: wa El Desbes | man 1     | Der Al Handosah  Der Al Hundraga |

| Project no. & title: Data Collec            | tion at National | Date: 28/08/2019  Meeting no. 10  Level with Part of Berry |
|---|------------------|--|
| TOTAL                                       |                  | dar  |
| Time: 9:30 am/pm                            |                  | Location: Port of Berrut                                   |
| Name  | Signature        | Company  |
| Sima Hojalj<br>Riwa El Derbas<br>Samer Rand | Sing.            | Dur Al Handarah<br>Port of Beirot                          |

| Date:       | 30/08/19 |
|-------------|----------|
| Meeting no. | 12.      |

Project no. & title:

Data Collection act National Level with Stinishyof Bisplaced



2:00 -2:40 pmam/pm Time:

Location: Minishy of Displaced

| Name                         | Signature | Company                             |
|------------------------------|-----------|-------------------------------------|
| Sima Hojaij<br>Assem Abi Al; | ete:      | عدد الدولة الدولة الشارعين النازعين |
| prive el Jerous              |           | Dar Al Hendard                      |

Date: 30/08/2019

Meeting no. 11

Project no. & title:

Data Collection at National Level WPH MOT



TOTAL

Time: 9:00 am -9-40 am/g/m

Location: MOT offices

| Name  | Signature | Company  |
|---|-----------|--|
| Sima Hojaij<br>Pele Abou Abbas<br>Riwa El Derba | 5         | Dar Al Handesah<br>Ministry Of tourism<br>Dar Al Handesa |

Date: 03/09/2019

Meeting no. 13

Project no. & title: Data Collection at National Level with LAEC

TOTAL

**RSK** 



Time: -10 am - 10:45

am/pm

Location: LAEC offices

| Name             | Signature | Company         |
|------------------|-----------|-----------------|
| Sima Hojaij      | Section   | Bar Al Handarah |
| or Duas EC SAMAD | 1000      | LAEC-CNRS       |
| Hassam Bsat      | -Cut      | LAEC - CNRS.    |
| Dr Yaria Joun    | Louis     | LAEC- CURS      |
| Da. Rave Baydown | Renge     | - LAGELUNGS     |
| Mohamed Rounie   | PT        | LAEC-CNRS       |
| Khaled ZAHRAMAN  | 60        | LAEC-CNRS       |
| River El Debes   | -         | Der Al Henderal |

Date: 03/09/2019

Meeting no. 14

Project no. & title: Data Collection at National Level with Ministry of Justice







Time: 12:00 - 13:00 am/pm

Location: Ministry of Justice offices

| Name                           | Signature  | Company          |  |  |
|--------------------------------|--|------------------|--|--|
| Sima Hojaij                    | The same of the sa | Dar Al Handasah  |  |  |
| Albert Section Marwan Kobrosly | The state of the s | Dar Al Handasah  |  |  |
| Riwa El Derbes                 | The state of the s | Dir All Hardasah |  |  |

Date: 03/09/2019

Meeting no. 15

Project no. & title: Data Collection at Nahional level with stinistry of Social Affo



Time: 2:00 : 3:15 am/pm

Location: MOSA office.

| Name   | Signature   | Company   |  |
|--|---|---|--|
| Sima Hojaij<br>Abolah Ahmatl<br>Mineille Rahmé<br>Piwa El Derbas | مار کی المار کی الما | Dar Al hondowh<br>MOSA<br>MOSA<br>Der Al Hendagol |  |

Date: 11/09/2019

Meeting no.

Project no. 8 title: Data Collection at National Level with MOFA

TOTAL

RSK

dar

Time: 12:00 - 12.45 am/pm

Location: Mora offices

| Name  | Signature | Company   |
|---|-----------|---|
| Sima Hgalj<br>GHADY EL KHOURY                                   | ay i      | Dar Al Hardash.<br>N. of Foreign Affairs                                      |
| Tony Antony<br>Nacine Johia<br>Rina D Derbes<br>Marwan Kobrosly |           | M. of Fouign Affairs & E.<br>Ministry of Foreign Affairs<br>Dar Are Hondason. |

#### **Disclosure Phase Public Consultation Meetings**







| التوقيع | رقع فهتف | المؤسسة والمرقز (إذا<br>قان ذلك ملاسيا") | الموقع بنا غان مختف<br>عن موقع الاجتماع | الوئس | الشهرة    | الإسم       |
|---------|----------|--|---|-------|-----------|-------------|
| NO      |          | county                                   | /                                       | Ŧ     | متريكة    | لار مرثية   |
|         |          | LPA                                      | 1                                       | F     |           | Davins      |
| 104     | ė.       | Total EPChan                             | 1                                       | 7     |           | Ann Clebaye |
| X.A     |          | TOTAL SH                                 | 1                                       | F     | AL-HAYATI | Leila       |
| H       |          | SAFOT                                    | 1                                       | 6)    | BOURANDA  | a Eronth    |
| Pa      |          | 125K                                     | 1                                       | F     | Kennigon  | Course      |
| 3       |          | Dar.                                     | 1                                       | F     | 8 Derbos  | Riwa        |
|         |          |  | 1                                       |       |           |             |





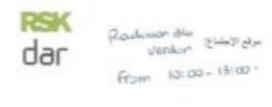


From 10:00 - 13:00

قانمة حضور الاجتماع

| التوقيع | رقم الهالف | الموسسة والمراز إذا<br>غان ثلث مناسبا") | الموقع إذا كان مختلف<br>عن موقع الاجتماع | الجنس | الشهرة   | lling     |
|---------|------------|---|--|-------|----------|-----------|
| Land    |            | <del>9</del>                            |  | male  | Ahmad    | samer_    |
| durp    |            | niemal                                  |  | tach  | Blood    | AGE.      |
| All     |            | Toral                                   |  | male  | NINGTONY | chrobate  |
| in the  |            | بارية زرتعتايل                          |  | male  | Cuisi    | اياب      |
| A       | c          | المدرة العادة المودالم                  |  | M     | FP.      | مازن      |
| -100    |            | CACGES                                  |  | dom   | SALAM    | KH&USAKAV |
| Soint-  | is .       | تعاریه هادی<br>الدین ستن العوه          |  | M     | المولا   | enopy)?   |
| -       | c          | LD.                                     |  | M.    | محدفالو  | عداكناق   |









### قاتمة حضور الاجتماع

| التوقيع     | رقم تهتف | الموسسة والمراز إن<br>كان تك مناسبا") | الموقع إذا قال مختلف<br>عن موقع الاجتماع | الهشى | 1,620   | . (لاسم   |
|-------------|----------|---------------------------------------|--|-------|---------|-----------|
| habitho     |          | M-E                                   |  | P     | ر الك   | أعظ       |
| layal Kayji |          | InfoPro                               |  | F     | فوزي    | ليل       |
| 中           |          | Woulek                                |  | F     | Maidous | Dara      |
| W 1         |          | Pentus Petredeum                      |  | 7     | Wasen   | Jeff      |
| Marsu       |          | Consistent                            |  | F     | Sayar   | Noncy     |
| D.          |          | ER:                                   |  | M     | Soundis | Dimitrion |
| fu!         |          | MULEX                                 |  | M     | Sukuni  | Chazi     |
| 15          |          | الدكاع كم<br>المونى<br>الاشارة الم    |  |       | YAZBEK  | simila    |









#### قانمة حضور الاجتماع

| E E E E E  | رقم الهاتف | الموسسة والمراز إذا<br>كان تك متاسيات | الموقع اذا كان مقتلف<br>عن موقع الاجتماع | الجئس | فلهرة          | lling         |
|------------|------------|---------------------------------------|--|-------|----------------|---------------|
| AST        |            | UMB                                   |  | M     | 24             | عسائي         |
| Shadad     |            | CSI                                   |  | F     | الاعتب         | - Dec 110     |
| otago      |            | HOE                                   |  | F     | الراحاي        | سين الرحلي    |
| Bully      | 4          | Krafel                                |  |       | 02200          | الناب         |
| /          |            | TOTAL                                 |  | M     | RICARDO        | DARRE         |
| J'arrigino |            | Patroleum                             |  | F     | -              | الدا أما جويه |
| a to       |            | الماريك                               |  | M     |                | PRZAH SAWIKAZ |
| 14         |            | Cosco Sinthwis                        |  | M     | <b>GLYAKAM</b> | CYAMAN        |



19/09/2019 31/19



تائمة حضور الاجتماع

| التوقيع     | رقم الهالف | المؤمسة والمراز إن<br>كان تك متنبيا") | الموقع إذا قان مقتلف<br>عن موقع الاوتماع | Being   | الشهرة   | P-31                |
|-------------|------------|---------------------------------------|--|---------|----------|---------------------|
| A_E         |            | Coplin                                | austern                                  |         | لارزوم   | حالمام              |
| Stodies     |            | PPNA                                  |  | Me      | Martini  | più Molan           |
| G.L         |            | SOAL                                  |  | Hele    | New      | Geografia           |
| Popular     |            | DAR                                   |  | Make    | EL Chia. | Andrine             |
| 72          |            | Directoryt                            |  | famle   | SAVEU    | TANIAZAU            |
| Les         |            | Novatek                               |  | Ameli   | العريتي  | دانيلا العض         |
| Chronelegen |            | MEI                                   |  | fomole. | الحايلة  | کی بیشل<br>انوا بات |
| Carle       |            | SOAC                                  | Supley                                   | Mele    | كولخارك  | 8174                |







### فاتمة حضور الاجتماع

| حرقع      | رقم فهتف | الموسمة والمراز (إذ<br>كان ثلث مناسباً) | الموقع (1) كان مطاقب<br>عن موقع الاجتماع | الهضن | 1,420  | 14m                    |
|-----------|----------|---|--|-------|--------|------------------------|
| use       |          | 4 LOGI                                  | /  | F     | فيلد ن | السي                   |
| Junes     |          | DILLAT<br>Demendia                      | 7  | А     |        | عد عاله                |
| His       | ×.       | - Hour feet fould                       | -  | 4     | نۇن    | قيرا وو                |
| Allo      | c .      | الاردد ورادة                            | _  | R     | Cred!  | المحراحي المجبى        |
| JRON OSOL | 4        | LAU                                     |  | F     | 9      | والعث ال               |
| Trotales  | ic .     | Dicties of The                          | -8                                       | F     |        | Vichele<br>Balikevitch |
| 4         |          | D/WA                                    |  | ,41   | Zalex  | 16-6                   |
|           |          | Log3                                    | 1  | F     | Osman  | Hira .                 |

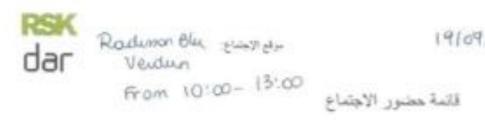






### فاتمة هضور الاجتماع

| التوقيع | رقم الهالف | المؤسسة والمرقز (إذًا<br>غان ثلثه مناسبا") | الموقع إذا قان مغتلف<br>عن موقع الاجتماع | الجلس | الشهرة   | P-VI      |
|---------|------------|--|--|-------|----------|-----------|
| I Goder |            | . Lsk                                      | /  | F     | Brooker  | Ruth      |
| Deep    |            | 7 RSK                                      | /  | F     | Confee   | ELLEE     |
| Pjkm    |            | , CDX                                      | _  | 4     | HWTH     | RESECA    |
| 2010    |            | EUNLA EMAZO                                | /  | F     | Tlangum  | Roug News |
| The st  |            | Geoffiat                                   | 1  | M     | PEHASSI  | ADIB      |
| 1       |            | ISF  |  | 02    | Acrad    | Bl. years |
| 0       |            | HOE  |  | F     | Mahames  | Lama      |
| - 1     | -7301-00   | LAF  | -  | H     | EL HEGOV | Roger     |





| اللوقيح | رقم الهاتف | المؤسسة والمركز (إذا<br>كان ثلك مناسبا") | الموقع إذا قان مقتلف<br>عن موقع الاجتماع | الهلس | الشهرة    | الإسم      |
|---------|------------|--|--|-------|-----------|------------|
| 27      |            | Part of Brist                            |  | ¥     | RAAD      | Somer      |
| 143     |            | lebangse                                 |  | M     | Bashous   | Mazen      |
| 1       |            | OTRH                                     |  | 17    | PRE-Jones | Lindson    |
| Your    |            | Facili<br>Gladuite                       |  | М     | Anbid     | Youssel    |
| 05      |            | Leb gray.                                |  | 14    | Nabole;   | cal Basson |
| kaser   |            | SMG                                      |  | M     | Cours     | \$4551m    |
| Alim    |            | Laceco                                   |  | F     | E17ciu    | Arwa       |
| West    |            | MosA                                     |  | M     | Fayad     | Tarek      |



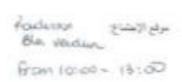
الربخ: 19/09/2011



#### قائمة حضور الاجتماع

| الثرقع     | رام الهالف | الدوسة والمراز إذا<br>كان تك متشياح | الموقع إذا كان مطالف<br>عن موقع الاجتماع | تینس | شهرة      | ₩,          |
|------------|------------|-------------------------------------|--|------|-----------|-------------|
| - m        |            | Bar Al<br>Handasah                  | /  | F    | Hojaij    | Sima        |
| riunizini. |            | IUCN-                               | 1  | F    | Hiposini  | Mira        |
| 0          |            | Leboure aring.                      | -  | H    | Zinlek    | Elias Ziall |
| 114        |            | Dar                                 | -  | H    | Khody     | Herwin Ka   |
| 16         |            | LAP                                 | /  | M    | AL DARAZY | Georges     |
| good       |            | LPA                                 | 1  | F    | Rached    | grace       |
| 0          |            | TOTAL                               |  | 54   | CHONAL    | CHABIC      |









فانمة مضور الاجتماع

| عرق     | رقم تهتف | المؤسسة والمرقز إلاً<br>غال ذكك منضيا") | الموقع إذا قال مختلف<br>عن موقع الاجتماع | اليثس  | الشهرة | Pilled            |
|---------|----------|---|--|--------|--------|-------------------|
| Alek    |          | عرب إذاره<br>الكوأري أول                | 1  | 35     | الضاك  | عدل ۽             |
| State . |          | MEDILAA                                 | 1  | male   | Abou   | Repund            |
| ple     |          | Ministry of Breence                     | 1  | frmale | 0      | عرسلين عبر المؤبر |
| 100     |          | وزارة النياة                            | 1  | France |        | دانية ترج ال      |
| for     |          | C Shirts                                | 1  | 15     | نرما _ | اين               |
| 4       |          |   | 1  | LOGI   | الفسك  | rr2               |
| Mun     |          | Addust                                  | 1  | ricle  | Kaus   | Marin             |
| 8       |          | E TUCN<br>ROWA                          | 1  | Hale   | SOMAHA | ZADL              |



20/09/19 300



40:00 - 13:00

#### قاتمة حضور الاجتماع

| الترقح  | رآم الهالف | المؤسسة والمركز (الله<br>كان (تك متاسيا") | الموقع إذا قان مختلف<br>عن موقع الاجتماع | الوئس | الشهرة    | p-V)        |
|---------|------------|---|--|-------|-----------|-------------|
| DOS     |            | ch un                                     | 1  | Hd-35 | 2-2       | KAPPA Y     |
| Man has |            | Honer Front<br>Foundation                 | 1  | M     | Rood      | Nessen Asig |
| E-F     |            |   | ,  | Ŧ     | Stronglan | Act Barbon  |
| 40-     |            | Congraf<br>Congraf                        | . /                                      | £     | Kove.     | Souran      |
|         |            | De Al<br>the down                         | 1  | F     | Gtw       | روی درس     |
|         |            |   | /  |       |           |             |
|         |            |   |  |       |           |             |
|         |            |   | 1  |       |           |             |





## 20109/19 353



#### قالمة حضور الاجتماع

| التوقيع  | رقر تهتف  | الموسسة والمركزوات<br>كان تك مناسبا") | الموقع (1) قان مختف<br>عن موقع الإجتماع | الوئس | 1,420    | <i>₩</i>  |
|----------|-----------|---------------------------------------|---|-------|----------|-----------|
| Kindony  | AGE JUNES | 4                                     | -                                       |       |          |           |
|          | AB        | TOTAL                                 | ~                                       |       | # metany | Christoph |
| 515      |           | 2315                                  | /                                       | (-    | Resear   | HEATH     |
| E Rocker |           | RSK                                   | ~                                       | F     | brooker  | Ruth      |
| des.     | c         | asi                                   | -                                       | F     | Kennedy  | Corne     |
| SAV      |           | gsx                                   | 1                                       | F     | Corpe    | Ellic     |
| HH/      |           | Total                                 | /                                       | H     | Chelogeb | Aram      |
| 10       |           | Lifer                                 | 2                                       | F     | Bookers  | Taylor    |



عليج: 19م2/99/p



| حرقع    | رقم ثهلف | الموسسة والمركزوات<br>كان تك متاسيام | الموقع إذا كان مقتف<br>عن موقع الاجتماع | الجنس | الثهرة    | p=31      |
|---------|----------|--------------------------------------|---|-------|-----------|-----------|
| Ar      |          | LrA                                  | 1                                       | 2     | cold      | greek     |
| March   |          | Consultural                          | /                                       | F     | Sayar     | Nancy     |
| Andrile |          | AUB                                  | 1                                       | 17    | BARIONE   | Model     |
| de      |          | TOTAL                                | 1                                       | M     | KARVAFI   | MAURICE   |
| 千       |          | Diaries of the Olean                 | 1                                       | F     | Panoshiam | Tina      |
| Morella |          | Consultant                           | 1                                       | 14    | Wiele     | MARC      |
| No.     |          | JAYOT                                | /                                       | 7     | Bourenis  | M Everely |
| خلاس    |          | Dar                                  | 1                                       | F     | Hojacij   | SIMA      |





| التوقيع  | رقم الهلف | المؤسسة والمركز والا<br>كان تك منضيات | الموقع إذا كان مطالف<br>عن موقع الاجتماع | Topic | 1,440       | -4          |
|----------|-----------|---------------------------------------|--|---|-------------|-------------|
| Abdalba  |           | City, with                            | /  | Hale  | Chelick &L. | Addallah    |
| MATS GIE |           | PHINE PAL                             | 7 -                                      | 2   | 30          | will khouse |
| \$       |           | HONOR<br>FRAST<br>FRANCATION          | /  | Formula   |             | Lucy Semas  |
| 1        |           | Shine water                           |  | £s  |             | امن فرما -  |
| told !   |           | Mot                                   |  | VA  | nerjani     | Digregan    |
| 1        |           |                                       |  |   |             |             |
|          |           |                                       | /  |   |             |             |
|          |           |                                       | 1  |   |             |             |







10:00 - 13:00

|       | p-37    | الشهرة | الوئس | الموقع إذا قال مطالف<br>عن موقع الاجتماع | المؤسسة والمركزوان<br>غان ثالث مناسبا | رقم الهالف | الترقع |
|-------|---------|--------|-------|--|---------------------------------------|------------|--------|
|       | Zama    | YOUDIM | Ē     | -  | STAN - Evolus<br>Evolusion            |            | 9      |
|       | Licarda | khoury | И     | -  | ELARD                                 |            |        |
| Cadgo | 15-121  |        | M     | -  | ملونا وسيل                            |            | t      |
|       | -2      | 8401   | r     | 100                                      | OFA                                   |            | VI.    |
|       | Abdolah | Accord | H     | -  | CHILI                                 |            | fr     |
|       | WALIP   | KAROL  | M     | -  | 0490                                  |            | Jan .  |
|       | Mishie  | Essa   | t     | -  | 12 163                                |            | 4      |
|       |         |        |       | /  |                                       |            | 1      |





[This page has intentionally been left blank.]

### **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 3.12 Detailed Question and Response Trail

80754









[This page has intentionally been left blank.]

The below Question and Response Trail table contains questions asked by stakeholders during various phases of engagement (scoping, baseline data collection and EIA disclosure). Questions asked and topics discussed by EIA team with stakeholders to inform EIA process are not reflected in this table but are incorporated into various sections of the EIA document (Baseline and Impact Chapters). Answers provided in this Table are based on translated notes and records taken during the meetings and cannot be modified.

| Event Date   | Location                  | Organisation<br>Name | Questions and Concerns  | Response Provided   | Section in EIA where<br>Comment is Addressed |
|--------------|---------------------------|----------------------|---|---|--|
| Public Consu | Itation Meeting           |                      |   |   |  |
| 24/05/2019   | 2 <b>4/05/2019</b> Beirut | DEP                  | Thank you for the advanced and informative presentation. We hope this level of EIA will spill into other industries and sectors, as it is highly needed in Lebanon.  My first question is, when is the study expected to finish?  | The end of consultation period will be on the 3rd June with the aim of submitting the updated scoping report by the 16th June. The next round of public consultation will be in mid to late August and it is hoped that the final EIA report will be submitted to the MoE in October for approval by December.  | 9  |
|              |                           | ELARD                | Secondly, what are the environmental impacts associated with crew changes: will this be by helicopter or vessel?  | As outlined in the presentation, crew change will most likely be by vessel but there is a possibility that this could be by helicopter if the civil aviation license is granted. The potential impacts associated with crew change include air emissions from vessels or helicopters. Any emissions will be in accordance with national regulations and international standards and will not exceed these guidelines. | 6.3.1<br>6.3.2                               |
|              |                           |                      | The update of the SEA has been through public consultation and will be submitted for official approval to MoE in a few weeks. We didn't see it mentioned much in the presentation – I recommend you look and take the mitigation measures seriously. There are acceptable options for waste managements among others. | SEA is being used as a point of reference. It will serve as an umbrella for these studies and the mitigations measures that are suggested will be considered.   | 6  |
|              |                           |                      | How will the baseline studies affect the potential drilling locations? E.g., if a high ecological area is identified, will the location of the block be moved?  As far as major accident hazards are concerned, how will safety studies link with   | Environmental surveys will identify sensitive areas. We will consider any ecologically significant areas during the EIA and suggest appropriate measures to mitigate potential negative impacts in these locations.  The EIA will also outline appropriate  | 6.3<br>6.5.1                                 |

| EIA studies? Which spill scenarios will be assessed and how?  How will TOTAL ensure the safety equipment before drilling, even if the possibility of a serious incident is 1 in a million?  | mitigations for any potential negative impacts. These will be adopted by the company. We are working on risk assessments.  |       |
|---|--|-------|
| In terms of underwater noise, what alternatives or measures will be considered to reduce noise at source and how will data gaps be addressed? (migration patterns, seasonality).  | We will conduct underwater noise modelling during the EIA. We will explore any potential impacts on marine mammals and we will assess how we can avoid or reduce these impacts.  | 6.3.1 |
| The scoping report needs to outline each potential impact. We need to understand what is already known and what information needs to be known.  I want to know what methodology is being used for the baseline assessment to understand what data is being collected. There is some information in the scoping report, but I was hoping to hear more about this. The MoE has to approve the methodology, so it would benefit from a more thematic approach. | As we discussed in the presentation, the scoping process is designed to determine what information is available and will help us to identify any gaps.  The environmental baseline study has already been conducted and the social baseline study is currently being conducted to fill the gaps that we have identified during scoping. The scope of the EBS survey was agreed with the MoE and LPA.  For the EBS, specialists, including archaeologists and marine experts spent 22 days offshore, surveying the offshore environment and taking still photos and videos in order to produce a snapshot of the baseline conditions.  We conduct the baseline studies to give us a picture of the environmental or socioeconomic environment before the drilling, so that we can cross compare afterwards.  We are adopting a global methodology. We will identify the potential impacts and we will set them up in a matrix based on severity. We suggest appropriate mitigation measures based on severity. We consider the pre and post mitigation severity and assess the residual impacts after mitigation. Potentially severe impacts are very closely considered. We follow the mitigation hierarchy to determine how to reduce or minimize | 1.8   |

|   | impacts. The first priority is always to avoid impacts.   |     |
|---|---|-----|
| For the scoping report, we need you to be more specific for each impact, for waste management, for how you will consider alternatives. For the moment it lacks this detail. Scoping report is the tool to agree on the methodology, what issues there are, what alternatives will be considered.  | As we have explained, the scoping study focuses on high-level impacts. It is the first stage in the process. The following stages in the EIA will cover identified gaps and will be much more detailed. Further details on the EIA methodology has been provided in Section 7 of the Scoping Report.  | 1.8 |
| How will the EIA interact with other studies and decision milestones? How will the results of the EIA studies influence the drilling schedule, the design of drilling ships or location of drilling for example? It must not simply be a "nice process" without actually making an impact; there must be time for design changes if needed.  How will EIA affect any necessary design changes? Will there be time for design changes? The scoping report methodology requires more time and detail. | This will all be in detailed in the EIA report. The scoping study focuses on high-level impacts. It is the first stage in the process. The following stages in the EIA will cover the identified gaps and will be much more detailed. The EIA will help define the design process and the timing of the drilling.   | 1.8 |
| Will there be any horizontal drilling, and will there be any fracking? This is a key concern as it is dangerous.  | For this exploration well, we will use vertical well drilling. There will be no horizontal drilling. We are only trying to assess if there are hydrocarbons present; we are not here for the purpose of producing so there is no need to frack.   | 4.4 |
| The Lebanese government did not specify which standards to use for the drilling company to be used? What kind of standards did my government ask you to follow? We need to know what standard was agreed on in case something goes wrong.   | As an expert yourself, you know the amount of industry standards available to adopt — there is a huge number and we don't want to limit TOTAL. TOTAL will look at the country's own standards, if the country's standards are more stringent than their own then they will adopt and apply them. If TOTAL company standards are more stringent then they will work according to these. It was then explained that this question is outside the scope of the public consultation and EIA and other questions were invited. | 2   |

|                        | For waste generated by the project such as drilling mud, will it be treated onshore or offshore? Will there be plants? Who will monitor this?   | We are currently looking at options and strategies for the treatment of mud. Cuttings generated using non-aqueous based mud will be treated onshore – the challenge is where. We are committed to dealing with this properly and responsibly.  The EIA process will determine the exact types and amount of Project waste. A waste management plan will be developed in line with national requirements. | 8.6.1 |
|------------------------|---|--|-------|
|                        | Thank you for your presentation. The effects on the environment is a key concern to all of us. Of course, this is not Total's first drilling exploration, but could you tell me if API 54, which is now recommended to use for offshore drilling projects worldwide, will be applied and followed in Lebanon? | TOTAL E&P Liban comply with a set of standards which includes local standards set by the government and TOTAL's standards which are in line with international guidelines includes most of the API 54 code. If there is a conflict between local standards and TOTAL's standards, then we will apply the most stringent standards.   | 2     |
| Phoenicia Oil and Gas  | What about water-based waste?   | The EIA process will define and determine the exact type and amounts of waste and will develop a management plan in line with national requirements and international standards.  The waste management plan is underway, and it will be presented to the government for approval.  MoE is working on a waste management policy for the oil and gas sector, which all projects should be in line with.    | 8.6.1 |
| Diarries of the oceans | When will the methodology and results be available online?  | The draft scoping report has been online since 3rd May and will be available to view and comment on until 2nd June. It is a draft report and will not be finalized until public comments and concerns have been incorporated.  | N/A   |
|                        | The sea is relatively clean in the location where drilling will be (6km away from the shore and over 1500m deep). Some designated ecological areas are within block 4 where you will be starting? Are you proposing something to deal with this?  | It is important to remember that the project is exploratory, and the activities are limited in space and time. We will follow the mitigation hierarchy to avoid, reduce and offset any impacts and will be adhering to strict international standards. The EIA will deal   | 6.3.1 |

|        |   | and the second s |                                  |
|--------|---|--|----------------------------------|
|        |   | with any environmental sensitivities identified.   |                                  |
|        | Studies have shown that there are areas of the sea that have high ecological importance. How do you plan to detail and deal with this?  | We have conducted an EBS and desktop study to determine the areas that have higher ecological importance and to prepare appropriate mitigation measures to deal with potential impacts in these areas. The exploration drilling activities are limited in time and space but the EIA will identify, document and address environmental sensitivities.  | 5.4<br>6.3.1                     |
|        | While presenting, you said all of the sea in Lebanon is polluted, on what basis have you made this claim?   | Firstly, let me clarify that not all of our waters are totally polluted, but there are proven levels of industrial waste in the sea. It is well known that the Lebanese are reluctant to swim in our sea.  The data on sea water quality is based on a review of desktop studies, including CRNS studies, which have shown quantities of industrial waste in the discharge of sea water. Sewage discharge has been reported as well, the details of which are included in the scoping report which you can find on the RSK website.  | 5.3.1<br>5.3.2<br>5.4.2<br>5.5.3 |
| SSTEPS | Firstly, guidelines for Oil and Gas have been recently prepared by the MoE – to what extent are you applying these?  Secondly, I agree, there should be more elaboration on methodology on EIA  The guidelines are not only related to mitigation, but to the whole process (scoping, preparation), as well as stakeholder engagement. It would be important to take these into consideration.  Why are we doing scoping on Block 9 now? Wouldn't it be better to do one Block (e.g., 4) before the other to be able to learn from lessons? | We know the draft guidelines, we have studied them, and they are very detailed. We are not against facilitating these new guidelines if not impacting the schedule. However, we are committed to apply the current applicable laws.  The comment is well noted, thank you. We will update the scoping report with methodologies. The scoping report will provide a snapshot of existing conditions.  The scoping reports are currently being conducted for Block 4 and Block 9. The EIA for Block 4 will be conducted before the end of 2019 and Block 9 will follow in 2020.  | 1.8 2                            |

|              |                     | Puntos<br>Petroleum                   | For the waste (seabed) what measurements are taken? Is it the responsibility of Total to manage these pre-existing wastes?   | Baseline sediment quality samples were taken during the EBS for a range of parameters, with laboratory analysis for many parameters, including physicochemical and biota. Results will be presented in the EIA. We do not believe it is our responsibility for dealing with pre-existing waste in our exploration blocks.  | 5.3.1 |
|--------------|---------------------|---------------------------------------|--|--|-------|
|              |                     |                                       | What type of formations would you expect to have? Sandstone? Shale? Will it be mentioned in the report?  | Further information on the expected formations will be provided in the EIA   | 5.3.2 |
|              |                     |                                       | The schedule as I believe should be in accordance with drilling, how will Total manage to take the EIA into account? Knowing that the delivery of the final report is December, the same month as the drilling is expected to start? | Exploratory activities are scheduled to commence in Block 4 by the end of December 2019, and in Block 9 before the end of 2020. The timeline should be sufficient enough to finalise the EIA whilst adhering to best practices and standards. Commencement of the drilling activities is directly tied to the approval of the EIA, which we expect to receive based on the current schedule, also in December 2019.  | 1.3   |
|              |                     |                                       | For drilling mud, what type is suggested and what about its disposal? How will the disposal be monitored?  | The decision on which mud types to be used has not been confirmed as yet, however this information will be included in the EIA. The EIA process will define and determine the exact type and amounts of waste. Waste management and monitoring will be part of the licensing requirements for the Project. The development of a waste management plan is currently underway, the plan will be in line with national requirements and international standards and will be presented to the government for approval. | 8.6.1 |
| Scoping Phas | e Stakeholder       | Engagement Med                        | etings   |  |       |
| 14/05/2019   | Minnieh-<br>Tripoli | Fishermen<br>Coop Minnieh-<br>Tripoli | There was a survey carried out around 3 or 4 years ago and the ships that did the mapping created a negative impact for the fishing resources.   | The geophysical surveys were carried out before environmental impact was a requirement for such projects in Lebanese waters (before the EIA decree).   | 4.2   |
|              |                     |                                       | We asked the army and the civil defence who was responsible, and they said the   | The survey vessels were contracted by the Lebanese government. Since the surveys   |       |

| ships are for Petroleum companies.  We are for development, but as long as it does not harm the seas.  | were carried out, legislation is now in place to require EIAs for this type of work to reduce the impacts.  We are working to make sure that further impacts are avoided by setting environmental and accountability measures.  The Ministry of Environment now has in place procedures to ensure there is more follow-up and accountability for oil and gas activities.   |                |
|--|--|----------------|
| If there are any harms, we will act against it for proper compensation if our livelihoods are affected.  | We hope that this won't happen. We are presenting the worst-case scenario. As part of the EIA, there will be modelling conducted for the worst-case scenario in addition to the potential effects that may arise a result. When any potential impact is identified, we will use the mitigation hierarchy to make sure that this is avoided or minimised as best possible.  | 6.4.1<br>6.4.2 |
| In Tripoli, we have a company called IBC which is taking a part of the Tripoli shoreline. The company provides compensation for those fishing on the coast whose area is taken away by 1,000 meters. How will the fishermen be compensated for the area that Total will take for this project? | The EIA study and the baseline will determine the project activities and potential impacts. The EIA will propose measures to avoid, reduce or compensate for negative impacts and will also map the worst-case scenarios.  | 6.4.1<br>6.4.2 |
| Each part of Lebanon's shore has specific criteria for measuring where one can fish and is not the same all over.  | Let us manage expectations – again, this is exploratory drilling. There is no way for us to know if we have oil and gas unless we start drilling. We are doing this based on studies, it is not guaranteed. We might drill and find nothing. We have to make sure you know that this is happening over a short period of time. The ship would come for 2 months and leave. The potential effects on the fishermen are limited as a result. | 4.2            |
|  | If hydrocarbons are discovered, we then<br>need to decide if they are commercial. There<br>would then be an additional EIA. We are   |                |

|        |  |  | presenting potential impacts and are being transparent.   |       |
|--------|--|--|---|-------|
|        |  | It was a positive and constructive meeting.  | Noted with thanks   | N/A   |
|        |  | Hopefully this work would close the debts but also may also line the pockets (describing Lebanon politicians).   | No comment.   | N/A   |
|        |  | In order for us to properly follow up with you, you have to provide us with transportation fees.   | No comment.   | N/A   |
|        |  | We have raised the issues that we want to.   | Comment was noted.  | N/A   |
| Beirut | International<br>Labour<br>Organisation<br>(ILO) | I am not an expert on environmental matters, but we were contracted to advise on projects of smaller sizes. You are doing a current assessment but there is no clarity on your action plan when it comes to mitigation of environmental impact, and what will be done on the ground. In addition, in terms of liability in the case of accidents: who will be responsible- Total or sub-contractors? | We are currently in the process of defining the role of responsibility between Total and local affiliates and subcontractors.  Emergency planning is considering all the possible scenarios, from small accidents to major incidents i.e. 'worst case scenarios'. We have a number of plans (including oil spill contingency plans), in case of a range of emergency situations. The emergency plans are consistent with internationally recognised practices such as IMS (incident management system). | 8     |
|        |  | Are there conflicting mandates between MoE and MoEW in terms of drilling?  | The ministries have different mandates.  The MoE approves and reviews the EIA, with assistance from the LPA.  The Ministry of Energy and Water awards drilling permit, after approval of the EIA from MoE.  | N/A   |
|        |  | Project related job creation will occur on site and it will be a source of income for workers. Are there standards that will apply, including social protection for both Lebanese and foreign workers, and is this in line with the law of association, since Lebanon has not actually applied this?   | For work permits, different entities are currently working to make sure the local legislation will be applicable for any worker (Lebanese or foreign) working in this sector.  The EIA will address worker health and safety issues and provide appropriate mitigation measures for potential impacts.  | 6.1.3 |
|        |  |  | Just to clarify, if following exploration,  |       |

|  | discovery is announced, an additional EIA will be carried out. This EIA would be a much bigger scale and conducted over a longer period. New work permits would have to be developed in line with this.   |     |
|--|---|-----|
| In regard to environmental plans, will you be taking comments, and will you be foreseeing the management plans?  Who will take care of it? Will it be the MoE Or the MoEW?   | Draft scoping report included a high-level environmental management plan (EMP). The draft scoping report is available to view online, and comments are welcomed. These comments will inform an integral part of the report and will also be submitted to the concerned authorities.  The EIA process will include primary data collection. This will better inform specialists of the potential impacts and facilitate the development of appropriate mitigations, ESMPs and monitoring plans.  Once management plans are approved by authorities, it is up to the company to implement them. Typically, the authorities will verify that the plans are being properly implemented. | 6 8 |
| The condition of workers and work-related policies is the main expertise of ILO. I imagine you will be recruiting a large number of foreign workers, but do you have any plans in terms of employment and creating capacity? | The requirement is for 80% local employment.  The exploratory drilling activities will last for only two months, which is challenging in terms of capacity building. If the exploratory drilling finds commercially viable prospects, we will work to develop local capabilities.  It is important to maintain the expectations of local entities in terms of the duration of employment during exploration. Drilling is a highly technological field and will require recruitment of high skilled people.  Recruitment of Lebanese would likely include on the job training. Most jobs will be for those with a marine background.   | 4.7 |

|  |   | It is important to consider the state of workers in this sector.  | Noted. Total has a good partnership with ILO all around the world, as we adhere to their standards.  |     |
|--|---|---|--|-----|
|  | Operation Big<br>Blue                           | There are a lot more sites to consider than just those outlined in the presentation.  In terms of the oil spill contingency plan, what's the level of alignment between the national response plan in the country and the company?                    | In terms of the protected areas, we have identified current sites right now and also the potential ones for consideration. Within the EIA there will be a plan for avoiding all protected areas, as per the mitigation hierarchy.  In terms of oil spill, we are doing all we can to make sure this doesn't happen. We have specialists conducting risk assessments which consider worst case scenarios (leak or discharge). There will be mitigation measures put in place as per the mitigation hierarchy.  In order to activate a national contingency plan, it needs to be translated into a decree for Lebanon for all entities responsible commit to the decree. It has yet to be submitted to the council of ministers, but we are working on it now. | 6 8 |
|  | Lebanese Oil<br>and Gas<br>Initiative<br>(LOGI) | On the legal framework, there is something missing in regard to the Transparency Law.   | The scoping report included the most important laws but there are many more.  The EIA will include applicable laws, including environmental standards.   | 2   |
|  |   | Law 598/2004 – Major Accident prevention, mandating Lebanon to join the international convention. It should be in the scope. Where are we from it?  | As regulator of the sector, we work on emergency management at sea. We do not have a framework on the ground for accidents at sea, because we are still developing this in cooperation with national consultants.  | 2   |
|  |   | Thank you for this meeting. We understand that the SEA is a way to plan for the EIA. This SEA gives the umbrella. The public consultation was done for the SEA and I think LOGI and Geoflint together had almost 65 comments on it. Has this SEA been | SEA was complete and put up for public consultation for more than a month. We got many comments and requests, both international and local, including people who worked outside Lebanon on this sector.  | 1.8 |

|  |   | completed yet?  One should be complete before the other. How will the EIA be done before the SEA is done?  We want the timeline for this. We have 2 months to apply EIA. When will the SEA be done?   | The SEA consultation is still open. The consultant is currently going through all of the comments. It will be finalised in the next few weeks and will then be presented to the MoE. The MoE is involved in the review process.  EIA teams are using the SEA to inform their work.   |              |
|--|---|---|--|--------------|
|  |   | I second the opinion.   | Comment was noted.   | N/A          |
|  |   | How long do EIA and SEAs last in other countries?   | These studies typically last between 6 and 9 months for exploration phase of drilling.  This comprises development of methodology, studies, assessment of impacts, submission of final draft, as we have explained in the EIA process.   | 1.8          |
|  | International<br>Union for the<br>Conservation<br>of Nature<br>(IUCN) | Will the survey ships be clean from fouling? We have a lot of invasive species coming from the Suez Canal. Will there be more coming in (Invasive alien species)?  The latest decision from IMO is to release ballast water in deep water before getting to the shallower water. You will be bringing a rig from another sea.  In other countries, they either tow it or bringing it from one country in another.  Was this taken into consideration in the Environmental Assessment? | Alien invasive species is a possible risk, and the EIA will provide more details.  The drillship would stay in Lebanese waters for two - three months, and there will be a need to release ballast water.  All operations will be carried out in line with best practice regarding invasive species, these measures will be included in the EIA. | 4.3.1<br>5.4 |
|  |   | I am seeking clarification on the strategy of the spaces to be secured for drilling.  I am concerned that there are some areas which are essential for certain types of species (of tuna). We were provided with funds in 2016 to map but we weren't able to do it all throughout but did it into 1,050 meters depth.   | A range of marine studies have been done for the EBS, these will all be compiled for the EIA. The scoping study has been posted with preliminary information and this is available for comments.   | 5.4.4        |

|     | When you tell the fisherman to go more than 500 meters from the coast, it would be a challenge for them. Additionally, there is a bias in this: when you put equipment that has light and vibrations, it might not capture the species on camera but would be hidden. It might also attract others.  140 species also shown that was the first time to be present in Lebanon.  IUCN with Sparac and Oceaon presented this to the MoE, executive summary was done for this to explain the 170 technical report in a 10-page summary to highlight the sensitive areas. It was given to the LPA and the MoE. There is no information from 1,050 to 1,900. Additionally, one of the protected areas is in Jounieh, that is still being worked on, in addition to Sour's coast. |  |     |
|-----|--|--|-----|
|     | Total and LPA, when we were going over the standards set by international and Lebanese laws, some IMO conventions have been signed by some Arab countries, but most of them have not been ratified or implemented. Will there be double implementation if the Lebanese government does not have control? Will you still abide by the 70 plus conventions if the Lebanese government does not.  YLNG in Yemen with Total was successful, because there was pressure from the state.   | TOTAL follow international standards. Also, in any country that we are working in, we abide with the national regulations and standards. It is a rule. If TOTAL's standards are more stringent than the country's national regulations, then we will apply our own. If the country's standards are more stringent, then we will apply those instead. | 2   |
| Geo | ·  | The methodology will be detailed in the EIA  | 1.8 |
|     | Are the methodologies used for the environmental baseline survey, biodiversity baseline, and socio-economic baseline available online?   | The socio-economic baseline has yet to be completed. The methodology will be presented in the study.   | 1.8 |
|     | I haven't read the scoping report thoroughly,  |  |     |

|            | but I noted that the methodology for Block 4 wasn't shown online.  |  |                       |
|------------|--|--|-----------------------|
| Green Line | Will there be any fixed installations, or will all the work be on the ship? What are the risks of accidents during the process (not talking about the deep-water horizon but something less serious)? What is the preparedness of the Lebanese government. We know we are not at the decree level, but we know there are people and equipment needed for this. Will Yaffa or Tel Aviv have to be involved? It is all very political. We can't even manage a forest fire here in Lebanon. | There is no fixed installation. We are planning to drill a well in the sea which is roughly the size of this table and not creating a big impact.  We are filing the hole with cement afterwards.  As previously mentioned, if the incident is an oil spill, first we will implement the Lebanese oil spill contingency plan. The responsibility belongs to the Operator, but we are preparing an oil spill emergency response plan. This is based on the worst-case scenario. We have an activation plan called PARAPOL (pollution prevention). This includes a 24/7 hotline where we can consult a specialist and mobilise the equipment required to deal with the spill. We can also mobilise equipment between other oil and gas companies. The operators will take full responsibility with the support of the government. We will not go to hostile neighbours | 1.8<br>8.6.5<br>8.6.7 |
|            | How many exploration wells will you drill? What is its surface area? In what point? Was it random sampling or quadrats?  | The commitment is for one well to be drilled in each block. In terms of the surface area, Block 4 is 1,911 km2.  Block 9 is 1,700 km2.  Sampling was done for the sediments, the methodology will be detailed in full in the EIA, but more information will also be added to revision 1 of the Scoping Report.   | 1.1<br>1.2<br>1.8     |
|            | Will the vessels be stable or mobile rigs, or ships? Will the service port be in Beirut?   | It will be a modern drill ship held in location<br>by a dynamic positioning system. The<br>logistics base will be in Beirut port.  | 4.3<br>4.5.1          |
|            | Does the MoE have the credentials to set these guidelines?   | In terms of the MoE's capacity to approve the methodology, a team of international experts and specialists, including the Norwegian  | 2                     |

| We are well aware of the Ministry's capacities, and the people working there.  I do not know how big the LPA team is, but there are a lot of questions on the technical know-how of the MoE.  | environmental agency were part of the process. They approved the methodology and reviewed all of the documentation sent and worked on by Total. The Petroleum Authorities is a new sector and there are some capacities we are still building. We have guidelines and assistance from those who are experts in the field so there is no need for concern.   |                   |
|---|---|-------------------|
| The sea mapping is already done, but not the social studies?  | The methodology for the EBS was set by consultants and approved by the MoE and LPA. The social baseline has not yet been completed, primary data collection will begin next week.   | 1.8<br>5.5        |
| We feel that these meetings are merely used to put a cover on the project and allow developers to say that there has been "civil society" representation during the process. However, when we come to these meetings, we come uninformed, without any prior knowledge of what will be discussed, minimising room for discussion and analysis and putting us in a weaker position for debate. This is the first time I have been to an EIA consultation in 5 years. In the past I would always request background material, but I am never provided with it. I think this puts us at a disadvantage. | This is a meeting to exchange views, comments and concerns and collect the suggestions of stakeholders as much as we can. It is also an opportunity to provide the Project information and data that is currently available.  We have published an advert in the newspapers which includes the website address where you can review the scoping report of Blocks 4 and 9. We are most definitely interested in providing such information. Stakeholder engagement is a long process and we will consult with you throughout the process. The grievance process also has an investigative process to provide a proper forum to respond to your concerns.  We need to progress together, and we thank you for your time today. LPA are at the table too, we want this project to be a success for the country and consider team work essential to achieve this. | 3 3.6             |
| Who did this survey and over what time period was it conducted? Where was the survey and how big is the surface area? I   | Creocean and Elard conducted the offshore baseline surveys over a period of 22 days.  These studies and surveys have been   | 1.2<br>1.8<br>4.2 |
| also have questions over the methodology  | informed by mapping and G&G activities that   | 7.6               |

|    |                                   | and how the studies were done in only 22 days.  What equipment was used? Who carried out the study and what literature was used? There are creatures we never knew existed. Is this representative of an area that is 1,000 square km, and produce the required information environmentally?   | have already been completed.  In terms of the surface area, Block 4 is 1,911 km2.  Block 9 is 1,700 km2.  |     |
|----|-----------------------------------|--|---|-----|
|    |                                   | If we don't have satisfactory baseline data, how will we be able to do a comparative assessment in case there are issues or damages further down the line?  For example, if I wanted to take you to court, would I have the necessary information? I insist on having all studies available and documented, especially since LPA said they have no resources for this. | LPA clarified that they are engaging the Ministries of Environment, and authorities in Norway to review submissions. Whatever we decide in terms of frameworks and guidelines towards how social management is being done, we tell them the direction we are taking and how we see them taking their plan.  Total is doing the studies in line with international standards. Our commitment is one well per block. We say minimum, because if we find traces of hydraucarbon, we can drill one additional exploration well, and an appraisal well in line with our exploration agreement for Block 4. You are talking about results and outputs when we are still on our first phase. | 1.5 |
|    |                                   | What exactly did Creaocean and Elard do? What are the components they worked on, and how does this overlap with Dar's role?  | Creocean produced the EBS and conducted environmental mapping which will feed into the EIA. They have undertaken offshore studies to inform their baseline.  Dar, working through RSK, will help to produce the environmental component of the EIA, including the scoping report (available online) and the assessment of impacts and development of management plans.  | 4.2 |
| En | he Lebanese<br>nvironment<br>arty | What exactly is the purpose of this meeting?   | The session is an engagement with selected stakeholders. You have been identified to attend and represent your own organisations and voice your comments, concerns and suggestions, which will be taken into account during the EIA.  | 3.3 |

|  | My question is directed to TOTAL. If the government has contracted a company to do its own EIA, surely there is a conflict of interest here?                       | This is only the early stage of the EIA process, and the exploratory phase for this work. Engagement will continue throughout the life cycle of the project and we will keep you informed.  TOTAL are not writing the EIA. They have contracted an international and fully independent company (RSK) to do this EIA. RSK will work with Dar (a registered company who has been approved by the CDR) and Infopro, as third-party companies to ensure comprehensive and independent assessment. The EIA will comply with various national and international standards which cannot be achieved without providing an independent viewpoint.  As already mentioned, the scoping report is online for all to comment on and there is a public consultation next week. You are important as you are able to scrutinize and hold the sector to account if the sector is not doing its job correctly. | 1.6        |
|--|--|---|------------|
|  | It is good that there is documentation of the state of the sea prior to the exploration, because it'll be much worse than any oil spills.                          | Comment was noted.  | 5.4        |
|  | It is not necessarily a comforting thing that Dar is registered and approved by the CDR, as CDR has a history of controversial projects in Lebanon.                | No comment.   | N/A        |
|  | Who are INFOPRO? Is it a Lebanese company?   | INFOPRO are a Lebanese research company, they are well-known.   | 1.6        |
|  | Were the blocks determined for sectarian reasons? (in reference to one block located in the South and another in the North). This was meant as a humorous comment. | The blocks were determined by the government and authorities following seismic and geotechnical studies that have identified exploration targets.   | 1.1<br>1.2 |
|  | The laws on protected sites set in Lebanon were set before there was any potential search for oil and gas. When it comes to  | Comment was noted. It was explained that there are no protected areas in these two blocks.  | 5.3<br>5.4 |

|            |                                   |   |   | these sensitivities, we need to redefine these protected areas.  For approximately 10 years, the CDR had a ship called Qana, which worked offshore in depths up to approximately 200 meters to do studies. There is minimal research work on other species located in areas deeper than 200 meters. There is a scientific loss in terms of documentation on deeper areas with higher stakes. | The EIA will include results from the environmental baseline studies  See also the comment from Ziad Semaha at the same meeting which was made in response to Habib Maalouf's comment. |  |
|------------|-----------------------------------|---|---|--|--|--|
|            |                                   |   | The EIA may look into what employment would be created, but will it also consider employment that could be lost, particularly in terms of the local culture and having it change as a result of the oil and gas industry? This has been the case in other countries with a similar situation? | Comment was noted. It was explained that this exploratory drilling is only for 2 months with 180 employees for that period. The likely impacts on employment are low for exploration.  | 4.7  |  |
| 15/05/2019 | <b>15/05/2019</b> Beirut          | General<br>Security   | The area of blue lines shown on the map are what?   | The blue lines show the areas that are considered the primary AOI. These are places that could be impacted by the drilling activities, due to the vessels moving from the exploration to the port, for example.  The additional blue areas on the map are preliminary identified areas that are either biologically sensitive, or sites of cultural heritage significance.                   | 5.5.1  |  |
|            |                                   | Lebanese<br>Customs   | On the topic of logistics, when will the base in the port be ready?   | It is hoped that the logistics base will be ready by the 1st November. The call for tenders is currently ongoing.  | 4.5.1  |  |
|            | Lebanese<br>Armed Forces<br>(LAF) | When it comes to infrastructure, do we have the proper infrastructure to handle such a project in the future? | Again, it is important to clarify that this is only the exploratory phase. The exploratory activities are only 2 to 2.5 months long. At this stage, it is too soon to plan towards a larger project. This is outside of the scope of the project currently.                                   | 4.5.1  |  |  |
|            |                                   |   | It is known that Lebanon is on a seismic fault that could affect earthquakes in the area - is this taken into consideration through the   | In terms of operation affecting seismic activity, it should be noted that the wells that are drilled are at deepest 4,400 meters below sea level. There is no possibility that this  | 4.4.2  |  |

|                  | studies? Especially in the Northern part of the country.   | could trigger earthquakes. We have mapped all of the geophysical features to ensure that the potential exploration targets are not located near fault lines to avoid potential risks.  The well would be roughly the size, if not smaller, than the table you are sitting at.  |            |
|------------------|--|--|------------|
|                  | Could there be a change in the demographic shift in the species or environment as a result of the drilling?  | The biological mapping we are doing as part of the EIA is designed to determine what the potential impacts could be. Only when we have this information can we develop the mitigation plans to avoid or minimise any potential negative impacts.                               | 5.4.1      |
|                  | If you do (or don't) find hydrocarbons, how can you be sure of whether there are hydrocarbons in other locations? There could be variability in the geological area.   | It is true that we may identify many prospects. Our work is to review all the seismic and G&G data to determine where the most probable locations are. We have been working for over a year to determine the most likely locations of potential prospects.                     | N/A        |
|                  | The sea in Lebanon follows a different criterion to elsewhere – it is already polluted, and the trash on the coast is a major challenge. How much could this project impact it, and will Total's drilling activities be impacted by the existing waste on our coast? | In terms of waste management, we will adhere to the regulations which are already in place in Lebanon, for example Law 444 which states no discharge in the regional water. We will also closely follow the international standards and national regulations.                  | 2<br>8.6.1 |
|                  |  | Further, all vessels contracted will be required to follow international and national requirements with regard to handling of waste. The drillship will operate in accordance with international laws which regulates the discharge of liquid waste, pollutants and emissions. |            |
|                  |  | The existing situation regarding waste in Lebanon will not affect our drilling activities.   |            |
| Lebanese<br>Navy | We are in charge of hydrographics in the sea, and we are considering the risks of the navigation. There are many fishing routes in   | Noted. The coordination happens through the LPA and TOTAL with assistance from the relevant local authorities. It is the local   | 5.5.3      |

| Hydrograp<br>Service            | this area and there should be close coordination with the authorities in charge of the fishing vessels directly. That is also the case for the naval forces. Please take the opinions of the public authorities here in mind. | authorities' responsibility to ensure that there is proper coordination.  |          |
|---------------------------------|---|---|----------|
| Lebanese<br>Security F<br>(FSL) | Stakeholder sought clarification on whether the email for Total grievance is specific to Lebanon or not.  | Yes, the email for grievances is specific to Lebanon.   | 3.6      |
|                                 | Is one well enough?   | Yes, one well is enough to see if there are hydrocarbons present. We will be able to see if there are hydrocarbons present and if there are, the next step is to determine whether the prospects are commercially viable, based on the volume of hydrocarbons discovered.   | 1.1      |
|                                 | How many drilling wells will you do in these exploration operations?  | We will first drill one well for exploration on<br>Block 4 and one well on Block 9. The idea at<br>this stage is to assess if there are<br>hydrocarbons present, yes or no.   | 4.1      |
|                                 | If we take the gas from Block 9, are we sure it won't interfere with the gas in the neighbouring blocks, like Block 10?   | A block is a large area where in which there will be a number of prospect points (area where there is either oil or gas). It is not throughout the whole block but part of the block. In one single block, there can be many prospects.   | N/A      |
|                                 |   | There is a mechanism to address the situation in case there are reservoirs shared with neighbouring blocks.   |          |
|                                 |   | Where we may find a prospect that is in both Block 9 and 10, a process called unitization can combine the prospects into a single entity. This is how we will share prospects, in the case that Block 10 is not with the same operator. This situation occurs in different parts of the world and there are known mechanisms to define and address this. In Lebanon, there is a method of doing this too. |          |
|                                 | How have you split the blocks? Why are they not in a clear geometrical shape?   | The blocks were determined by a decree from the Lebanese government and   | 2<br>4.2 |

|            |   |  | authorities following seismic and geotechnical studies that have identified exploration targets. The blocks are predetermined by the authorities.  |       |
|------------|---|--|--|-------|
| Kfaraabida | Municipality of<br>Kfaraabida,<br>North Lebanon | I am seeing only two wells in the blocks – is that enough to determine if there is oil and gas in the bigger area.             | We have conducted studies to allow the most probable location of prospects to be chosen for drilling.  | 1.3   |
|            |   |  | One well is enough to see if there are hydrocarbons present and the next step is to determine whether the prospects are commercially viable, based on the volume of hydrocarbons discovered.   |       |
|            |   | Is the drilling vertical?  | Yes, exploration drilling will be vertical for this exploration in Lebanon.  Some O&G activities can take different directions, but not in this case.  | 4.4.1 |
|            |   | Could there be a law on the land?  | This is outside the scope of the EIA. We are not in that phase. The work has been done for the maritime.   | N/A   |
|            |   | When it comes to the NGOs that work on the coast, and coops for fishermen, I didn't see them. Were they invited?               | Yes, we already set up meetings with other relevant stakeholders, which included fishermen co-operatives. We have also invited them to the public consultation on Friday 24th May.   | 3     |
|            |   | Has there been another exploration by Spectrum?  | This is outside the scope of the EIA   | 4.2   |
|            |   | If there is going to be an EIA on the exploration activities, will there be another one for the production?                    | Yes. The EIA is only for exploration phase. In case of discovery and another phase of the project, there would be a more extensive EIA.  | N/A   |
| Kobayat    | Municipality of<br>Kobayat                      | If we are starting at the end of the year, why hasn't the study been completed yet? It reduces the time we have to discuss it. | We are following closely the required steps that go with producing an EIA. This takes time and includes the public consultation, in addition to the approval from the MoE. We are going step by step through the process. We have these engagements and will engage with stakeholders throughout the different phases of the EIA, including at the | 1.8   |

|       |  |   | public consultations, and through comments on the scoping report.   |        |
|-------|--|---|---|--------|
|       |  | Will the drilled hole be closed completely?  What precautionary measures are being taken in case of leaks, knowing that the coast of Lebanon is not comparable to other countries (30km)          | As previously mentioned, we will plug the hole after the exploration drilling has finished.   | 4.4.10 |
|       |  | Do you have an exact date for exploration?  | We cannot provide an exact date, but we are committed to starting exploratory activities in Block 4 by the end of December 2019.  | 1.3    |
|       |  | How did you set December as a start date if you're not sure how long the EIA takes?  My concern is how limited the time is for civil society and relevant stakeholders to comment on the reports. | There is a process for EIA and we are complying accordingly. In order to obtain the permit, we have to go through the required steps, which includes, in addition to the studies, developing an emergency response plan, oil spill contingency plan, etc. This is how we are working, and the timeline should be sufficient enough to finalise the EIA whilst adhering to best practices and standards.  Commencement of the drilling activities is directly tied to the EIA, which itself needs approval from the MoE. | 1.8    |
| Safra | Municipality of<br>Safra, Mount<br>Lebanon | How much will the fishing culture, including livelihoods be affected? Will there be impacts?  | We will be setting a restriction area of 500 meters from the rig during drilling. The EIA studies will further inform us of the potential impacts on fishing livelihoods.   | 4.3.1  |
|       |  | Is there an impact outside of the 500 meters?   | It is important to remember that due to the scale of the exploration activities, the potential impacts would be limited in time and space. We are considering the worst-case scenario and doing the EIA to determine what potential risks there could be to avoid them or mitigate them.  We can't tell until the end of the study what the exact impacts may be, but we will put in place appropriate and thorough mitigation  | 6.4.1  |
|       |  |   | measures. We know, for example, that the activities will make noise, but we will know   |        |

|                  |                                     |  | exactly what these impacts would be after the study.   |            |
|------------------|-------------------------------------|--|--|------------|
| Al-<br>Muhammara | Municipality of<br>Al-<br>Muhammara | How far will the drilling be from the shore? | Block 4 is 6km from the nearest point on the coast, and drilling will be carried out in the priority area where depths range between 1450 m and 1760 m.  | 1.2        |
|                  |                                     |  | Block 9 is 22km from the nearest point on the coast, depths in the priority area for Block 9 range from 1500 m to 1850 m.  |            |
|                  |                                     |  | This area is the priority region chosen following the geological and environmental studies.  |            |
|                  |                                     |  | Inside of the block, we define the prospect. Following this, we define the spud. The spud point has recently been announced for Block 4 (2 weeks ago), and this point will be approximately 12 Nm from the shore.  |            |
|                  |                                     | Do we cover the drilling hole?               | At the end of the drilling activities we will plug the drilling hole to prevent leaks.   | 4.4.10     |
|                  |                                     | What about the waste?                        | We will adhere to the regulations which are in place in Lebanon. We will also follow the international and national regulations.  There is more than one type of waste to consider: discharge from the drillship itself, in addition to the rock cuttings. We are in discussion with authorities and waste | 2<br>8.6.1 |
|                  |                                     |  | management will be part of the licensing. Waste will be processed in a treatment unit.  Additionally, all project vessels will follow  |            |
|                  |                                     |  | international and national requirements with regard to the handling of waste. The drillship will operate in accordance with international laws, which prohibits discharge of waste, and regulates the discharge of liquid waste, pollutants and emissions.   |            |

|              |                |                     | How deep will the drilling be? How big will the drill hole be?   | The maximum depth is 4,400 meters below sea surface level. The well will be roughly the size of this table.  | 1.3   |
|--------------|----------------|---------------------|--|--|-------|
|              |                |                     | There should be more participation from municipalities. We should have known earlier, there are fishermen coops and organizations who should be here as they are the at most high risk.      | Noted. We invited all the municipalities on the coast, through an official letter and phone call. Unfortunately, tomorrow is a day of mourning which was when another meeting with authorities was officially scheduled.  We will call them again to remind them of the possibility to join the public engagement on Friday 24th May. Please feel free to invite others to this event. There was an engagement yesterday specific to fishermen's co-operatives. Additionally, Infopro will also be contacting relevant stakeholders across some municipalities along the coast and will be visiting these villages to obtain their opinions. | N/A   |
| Scoping Repo | ort Comments F | Received Online 1   | from Stakeholders  |  |       |
| 19/05/2019   | N/A            | Unspecified         | I trust you. Nada.   |  | N/A   |
|              |                |                     | I would like to have copies of the reports. Thank you.   |  | N/A   |
|              |                |                     | As a fresh graduate petroleum engineer, I am very interested in attending the Public Meeting at the Radisson Hotel. Is there a registration or do I need an invitation to attend? Thank you. |  | 3.4   |
|              |                |                     | Urgent Expertise for Marine Environmental Impact.  |  | N/A   |
|              |                |                     | What are the steps taken regarding the mud waste management, and does the government implement national regulations concerning fluid wastes?   |  | 8.6.1 |
|              |                | Lebanon Gas<br>News | Please advise in which Radisson Hotel the Public Meeting will take place on the 24th? There are two Radissons in Beirut. Thank you.  |  | 4.2   |

|                       |               |   | Please email us Figure 3.1: Location of Block 4 and the priority area, as it is not clear in the published PDF file. Thank you.   |   |       |
|-----------------------|---------------|---|---|---|-------|
| Additional Co         | mments from I | _OGI  |   |   |       |
| <b>03/06/2019</b> N/A | LOGI          | General comment: insert the biography of experts who have worked on the report  | The EIA will include a section on the experience of the team who compiled the impact assessment.  | 1.6   |       |
|                       |               |   | General comment: insert in an annex the reply of MoE to the screening letter.   | Now included as Appendix 13   | N/A   |
|                       |               | Merge or illustrate the result of OCEANA study in Figure 4.22 within figure 1.2 | Figure 1.2 is intended to include only the location of the study area, and has been edited to remove other features of interest that are described elsewhere in the Scoping Report. |   |       |
|                       |               | Need to specify which drilling fluid will be used and why.                      | This information will be included in the EIA.  The decision on which fluid will be used has not been made as yet.   | 4.4.4   |       |
|                       |               | Add impact of airgun on the marine biodiversity.                                | The noise modelling that will be presented in the EIA will cover the effects on marine mammals, turtles and fish.   | 6.3.1   |       |
|                       |               | RF in Figure 4.6: potential fault found unlike in 4.7 and 4.8.                  | This will be investigated and updates to the figures will be presented in the EIA if required.  | 5.3.2   |       |
|                       |               |   | RF should be connected to Beirut.   | This will be investigated and updates to the figures will be presented in the EIA if required.  | 5.3.2 |
|                       |               |   | Update figure 4.7 based on data to be received from the national center of geophysics in Bhannes.   | Consultation will take place with the National Centre to obtain the information. An update of the figure will be provided in the EIA if required. | 5.3.2 |
|                       |               |   | RF (very active) is missing from figure 4.8.  | This will be investigated and updates to the figures will be presented in the EIA if required.  | 5.3.2 |
|                       |               |   | Figure 4.8 The magnitude 0.3 is only seen in Beirut even though it is important to acknowledge that the surrounding is also 0.3.  | This will be investigated and updates to the text will be presented in the EIA if required.   | 5.3.2 |
|                       |               |   | Figure 4.8, to take the recommendations of Huijer et al. and insert them in the baseline section in particular for the peak ground  | This will be investigated and updates to the text will be presented in the EIA if required.   | 5.3.2 |

| acceleration because it will have introduce  |   |       |
|--|---|-------|
| acceleration because it will have impact on  |   |       |
| the well design and stability.  Figure 2-15: the figure should show the most updated faults since research is done on faults. For example, even though Beirut is an active fault area, it does not appear in the figure.  Figure 2-17: It is odd that the major fault lines (such as Yammouneh Fault Line) have PGA 0.25 g and not 0.3g. In addition, Special attention should be given to the offshore Fault Line (MLT) knowing that most coastal cities have been destroyed due to a tsunami resultant from earthquakes from offshore (one of the cities being Beirut).  | The comments are appreciated, however the figure numbers quoted are from the Draft SEA, not from the Scoping Report.  Total will pass the comments on to the authors of the Draft SEA, and the EIA will incorporate updated information from the SEA if it is available in time, or Total's consultants will consult with the NCSR to obtain updates. | N/A   |
| Figures with more details and updates can  |   |       |
| be found in National Council for Scientific Research.  |   |       |
| More emphasis should be made about continental slopes being crucial four 4 reasons:  - Their geomorphological character is very unique, it leads to different ecosystems and thus very different biodiversity.  - Instability because they are structural elements connected to onshore seismic system (this a continuation of the onshore).  - Submarine landslides happen frequently and should be considered as a GEOHAZARD. (This is mentioned briefly)  - Location of a well is crucial in terms of locating it anywhere near continental slopes and valleys (even though it is mentioned that drilling will not happen in continental shelf)  In the last paragraph of Page 22 ("Should similar landslides existinvestigated and studied"), this should be more accurate since there have been studies about landslides not only in South of Lebanon as seen in Figure 2-21. | Further information on the importance of the continental slopes will be included in the EIA.  | 5.3.2 |

| There is no mentioning about the effect of   | The potential for gas hydrates to have an   | 5.3.2 |
|--|---|-------|
| Gas Hydrates on Climate Change. The only hazard mentioned is the blow out of gas hydrates. But when drilling occurs, gas hydrates might be affected and might let methane seep out which will affect climate | effect on climate change will be investigated and covered in the EIA if appropriate.  Shallow hazards have been avoided when locating the well, and therefore the issue is not expected to arise.   |       |
| change.  | T   |       |
| In Figure 4.12: should be orange and pink in front of Lebanon  | This will be investigated and updates to the text will be presented in the EIA if required (noting that the image is from a published scientific paper by Papadopoulos et al., 2014).   | 5.3.2 |
| Very steep slope along the Mediterranean.  | This will be investigated and updates to the text will be presented in the EIA if required.   | 5.3.1 |
| The results should be available.   | Results from the baseline survey will be included in the EIA.   | 5     |
| Missing info: what happened to the scope of the environmental baseline survey, where it is?  | This is now provided in Section 4.  | 5.1   |
| Wrong legend: The black dots not presented. Why is it using the 2014?  | Table 4.1 legend has been updated.  The 2014 data will be updated with further relevant data which is available, and this will be included in the EIA   | 5.3.1 |
| December → March: peak of productivity.  Then how did we choose to drill in  December??  | Literature indicates that nutrient levels rise from December to March, giving rise to the spring bloom.  Impacts to plankton from the drilling programme will be covered in the EIA.  | 6.3.1 |
| Table 4.2 is incomplete: No governorates (in block 4) Coverage is lacking in terms of the geology.   | Table 4.2 has been updated.   | N/A   |
| Very weak section and needs more research and elaboration. It is important to understand the movement of currents so we can understand the movement of oil spills.   | Section 7.4.2 outlines the oil spill modelling which will be undertaken for the EIA. The model requires current and meteorological data in order to run, and as noted, this will be provided using the CYCOFOS datasets from 2014-15. The currents which are used in the modelling will also be described in the baseline of the EIA. | 6.5   |

| Marine protected areas: Most operations are happening within the MPAs zone. What are the mitigation measures, contingency plans, do we have buffer zones assigned, alternatives? All these need to be assessed in the EIA. | The EIA will include impacts on marine protected areas and any necessary mitigation measures.  | 6.3            |
|--|--|----------------|
| The assessment was not done, and no samples taken from block 4.  | According to the OCEANA report, samples were not collected from within Block 4. The Total EBS survey did collect samples from Block 4 (see Figures 4.13 & 4.23 of revision 1 of the Scoping Report). | 5.3.2<br>5.4.9 |
| Elaborate more on figure 4.21 and define the ecological area and draw some conclusions from figure 4.22, results of the study were not properly discussed in relation to the Project.                                      | The EIA will include an expanded section on marine protected areas.  | 5.4.9          |
| The potential env. Impact of the onshore activity need to be expended with all the detailed activities.  | The EIA will include impacts from the onshore activities.  | 6.3.2<br>6.4.3 |
| No description of mitigation measures and monitoring plan: they need to elaborate more.  | The EIA will include mitigation measures and a monitoring plan.  | 6<br>8         |
| Cumulative impact: It is expected that a detailed cumulative impact will be included in the scoping.   | Cumulative impacts will be included in the EIA.  | 6.5            |
| More details about the comprehensive assessments of the impacts from accidents need to be included in the scoping.   | Assessment of potential effects from accidental events will be included in the EIA   | 6.5            |
| Accidental events should not only be linked to oil spills, they need to describe more events.  | The EIA will include an assessment of risks that could result in environmental consequences.   | 6.5            |
| Description: only talked about exploration and appraisal, but what are the activities after that?  They should state that a report for future activities will be done.   | Text added to Scoping Report   | N/A            |
| Detailed description for activities in Beirut Port needed. Will it need an EIA? Are we ready to manage the onshore?  | More details added on activities in Beirut Port. Assessment of impacts of these activities will be included in the EIA.  | 5.5.3          |
| Need to know if the Lebanese government is ready for emergency.  | This a question for the Lebanese authorities. Total has responsibilities as an Operator,   | 2              |

| What is the role of Total in this? What equipment does Lebanon have?  | such responsibilities are identified in Section 2, legislation.  |            |
|---|--|------------|
| Total's communication: informing public at all times  | Total has complied with the legislation on public consultation to date and will continue to meet its obligations for this type of communication throughout the project.  | 2          |
| Need to know the economic and social side.<br>Revenues of this project? Are we going to<br>have a fund for environment? For<br>emergency?   | This is a question that Total cannot respond to.   | N/A        |
| Social economic part should be found. How many will work and where? What is the benefit? Where is the gas going?  | The EIA will provide a socio-economic impact assessment. It should be noted that at this stage the project is exploration drilling and until the exploration drilling programme is complete it is not known whether there will be gas to be extracted. | 4.7<br>6.4 |
| Financing mechanisms, which policies is it following? (EBRD, Islamic bank, WB)  | Total does not require any financing for the exploration programme.  | N/A        |
| The chapter about the alternatives of impacts is missing.   | The EIA will include a chapter on Alternatives   | 7          |
| In the scoping, which should target everyone (from the taxi driver to the experts), we should know who are the experts.   | It is not clear from this comment, what the question is. However, the EIA will include information on the authors of the report.   | N/A        |
| Stakeholder engagement according to "plan." (What plan?)  | A SEP has been developed for the EIA, as a live document it will be continually updated during the course of the EIA and beyond.   | 3          |
| Disposal of the mud cuttings is subject to study. What study?   | The study will be carried out in line with international best practice and applicable legislation, and be available for summary in the EIA.  | 6.3.1      |
| Considering the technical capabilities of ministry to review the EIA, will Total pay 0.05% of its investment cost as fixed bank guarantee which the ministry can use if it needs technical reviewers? (As mandated by the 8633 decree). | Company is required to comply with the requirements of all applicable laws.  | 2          |
| Cumulative impacts should be well elaborated.   | Cumulative impacts will be included in the EIA.  | 6.5        |
| Impacts on fisheries and fishermen are not tackled.   | The socio-economic impact assessment will include potential impacts on fishermen.  | 6.4        |

| No public notice in the municipalities for the scoping report of the EIA. No papers were hung in municipalities to inform the people that they can now download, read and react to the scoping report.  | Please see Appendix 10 of Rev B of the Scoping Report, which presents an example of the information being queried. The link to download the scoping report was published in the newspaper when announcing the public (see Appendix 9).  | 3              |
|---|---|----------------|
| Outline missing   | The EIA will include analysis of Alternatives and sections that include the EMP. The timeline for further Project activities will also be provided in the EIA.  | 7 8            |
| What will be in the 5000 m2? (an onshore logistic base facilities and storage location that would support the project with 5000 m2 yard space, 500 m2 of covered warehousing and 100 m2 of chemical storage).   | There will be an outdoor area for storage of up to 5000 m2. More information has been included in the updates Scoping Report and further information will be included in the EIA.   | 4.5.3          |
| Scoping methodology should be more elaborate  | The level of detail provided for the baseline environmental and social study methodologies have been provided in greater detail.  | 1.8            |
| Results of stakeholder meetings should be added to the scoping report.  | The results are now presented in Appendix 6 of the updated Scoping Report (revision 1).   | 3              |
| In the Baseline Section, it is very important to engage the academic sector.  | This is understood and will be followed up for environmental information.   | 5.5.3          |
| The Study needs to include the detailed mitigation measures for accidents.  | The EIA will include accidental events and the related mitigation measures.   | 6.5            |
| There is a huge reliance on anecdotal data (a large number of studies mentioned as "to be" used from elsewhere-block 11 in Cyprus for example) that are needed for the EIA, and this is of concern to us as it undermines the accuracy and validity of this assessment. | It must be accepted that some information used in the assessment will come from literature sources. It is noted that the for the "anecdotal information" referred to regarding Cyprus Block 11, the Scoping Report text goes on to say that this will be complemented by still and video imagery from ongoing EBS surveys in Block 4" that will "collectively provide enough detail for an informed description of the seabed environment to be included in the EIA". | 5.3.2<br>5.4.1 |

|               |                |                      | General comment: to add a section in the baseline env. About marine springs.   | This will be investigated and updates to the baseline will be presented in the EIA if required.  | 5.3.1.9   |       |
|---------------|----------------|----------------------|--|--|---|-------|
|               |                |                      | General comment: to define the type and nature of the beach facing the blocks.   | This can be completed for the EIA, however it is not clear why it is needed.   | N/A   |       |
|               |                |                      | General comment: Executive summary should be in Arabic also.   | The Executive Summary of Rev 1 of the Scoping Report has been provided in Arabic.  | 0   |       |
|               |                |                      | General comment: the report should follow<br>the outline presented in the Lebanese EIA<br>regulation decree 8633/2012                                      | The Scoping Report does follow the outline in the Decree, and the EIA will also follow the outline.  | 2   |       |
| Baseline Phas | se Stakeholder | <b>Engagement Me</b> | etings   |  |   |       |
| 21/05/2019    | Safra          | Fishing<br>Household | As you said they will not need locals the first two months, but after that there will be 25 business contracts?  | Yes.   | 4.7   |       |
|               |                |                      | This means they will need our sons and men to be within the crew? I mean our specialists, our engineers, they will use Lebanese people not only foreigner? | Yes, that is right. But it won't be within these two months.   | 4.7   |       |
|               |                |                      | What are the work opportunities that will be available after this project?   | The exploration project's duration is for two months. During these two months the work opportunities will be very few for the local people.  But, they promise that after the exploration drilling many work opportunities will be available for the local people. | 4.7   |       |
|               |                |                      | What are the nationalities of the crew on board the ship?  | They are all from abroad   | N/A   |       |
|               |                |                      |  | The Base will be in the sea or on ground? Is it in Beirut?   | The Base will be in the sea, we have two bases Block 9 in the southern sea, and Block 4 which is from Antelias till Anfeh and six kilometres away from the shore. | 4.5.1 |
|               |                |                      | Will they need educated people?  | Yes of course.   | 4.7   |       |
|               |                |                      | Who is responsible for this project?<br>Someone like Gebran Bassil?  | TOTAL is the company that won the bid for this project.  | 4.1   |       |
|               |                |                      | What about the marine life?  | The presence of marine mammals has been investigated via MMOs (Marine Mammals Observers) observations and PAM (Passive Acoustic Monitoring Operators) records during the EBS survey. As a minimum,   | 5.4.5<br>6.3  |       |

|  |         |  | industry best practice mitigation will be developed as part of the EIA.  |              |
|--|---------|--|--|--------------|
|  |         | Are there any threats of danger to the fishermen?  | No. As I said the project is six kilometres away from the shore and during the exploration drilling activities there will be a 500 m safety zone for their safety and security.  | 4.3.1<br>6.4 |
|  |         | Will this project affect the Fishery of Lebanon's sea, and will it affect the fishermen?   | The EBS surveys have thus far demonstrated limited impacts to fishermen. The EIA report will examine Total E&P Liban exploration drilling activities and identify measures to prevent, avoid, minimise, mitigate or compensate for any adverse environmental and social impacts.   | 6.3<br>6.4   |
|  | Anglers | Does the staff consist of 180 people?  | Yes  | 4.7          |
|  |         | The work consists of drilling activities in this stage, right?   | Yes, only drilling activities for the purpose of exploration, if the project was successful and they found oil, they'll then decide if they proceed with the project. If the quantity of oil found is very low, they will not proceed with it.   | 4.4.1        |
|  |         | This is their livelihood, right? You are not one of them, right?   | True, 180 persons will work on the ship  | 4.7          |
|  |         | I know that when they're making artesian aquifers, and they find a strong spring, the water gets out. So, if oil or gas leaked, what will they do? | Usually gas is on top, so if there were any leakage, gas will come out first and then oil. And it will be treated right away.  | 8.6.7        |
|  |         | So, what will they do with the organic waste of the 180 employee who are living on the boat?   | All vessels contracted by Total E&P will be required to follow international and national requirements with regard to handling of waste.   | 4.3<br>8.6.1 |
|  |         |  | The drillship will operate in strict accordance with both the International Convention for the Prevention of Pollution from Ships (MARPOL, 1973/1978), which prohibits the discharge of trash and regulates the discharge of liquid waste and atmospheric emissions from marine vessels. The primary discharges from the drillship will be, drill cuttings, treated wastewater effluent, and |              |

|                            |           |  | macerated food waste. Water will be recycled to the extent practical, and sewage will be treated in on-board wastewater treatment units prior to discharge in accordance with MARPOL and national standards. The support vessels will not be equipped with wastewater treatment facilities but will follow all applicable MARPOL standards. Used oil and other liquid wastes will be stored in sealed containers on board the vessels for disposal at approved facilities on-shore. |  |  |
|----------------------------|-----------|--|---|--|--|
| Okaibeh                    | Fishermen | What did the environmental experts realize from our sea? What did they conclude? Why did fish decrease?  | We are interviewing you to fill and complete the undergoing study, as soon as the study finishes everything will be answered.   | 5.4.4  |  |
|                            |           | If these oil drilling operations worked out, will there be any available job opportunities for fishermen?  | As a first step, they need to drill and dig and you question has reached the companies concerned.   | 4.7  |  |
|                            |           | There are definitely negative impacts on the fishing culture   | Not necessarily at all.   | 6.4  |  |
|                            |           |  |   | What are the negative effects that might happen? And why don't they talk about them? | We're going to talk about everything throughout this interview and we will tackle every single detail. |
| Anfeh Fishing<br>Household |           | Concerning air currents that cross our sea, we can present a complaint about it but air current will still cross our way, so what shall be done? In addition that it might bring us negative impacts during these oil drilling operations, for instance like oil spilling. | They will definitely avoid this and only 1% of this is possible to happen.  | 6  |  |
|                            |           | Will there be losses for the fishermen and how will this be compensated?   | The EBS surveys have thus far demonstrated limited impacts to fishermen. The EIA report will examine Total E&P Liban exploration drilling activities and identify measures to prevent, avoid, minimise, mitigate or compensate for any adverse environmental and social impacts.  | 6.4  |  |
|                            |           | Since we live on fishing, will this act prevent fishermen from fishing?  | No prevention from fishing, however, no one is allowed to come near the ship for 500m around it.  | 4.3.1  |  |

|     |  | Will this have an impact on fishing?   | Studies demonstrated limited impacts on fishermen. The EIA report will examine Total E&P Liban exploration drilling activities and identify measures to prevent, avoid, minimise and mitigate any adverse environmental and social impacts   | 6.4   |
|-----|--|--|--|-------|
|     |  | Where will it take place exactly?  | The place is not yet specified. There are focus areas within Block 4 located in offshore Northern Lebanon and Block 9 located Southern Lebanon. Block 4 extends from Dbayeh/ Antelias area to Anfeh.   | 4.1   |
|     |  | Will our village benefit from this project economically?   | Total E&P principally contribute to host societies through revenues, taxes, employment and business opportunities associated with our projects and operations. They will try to contribute as much as possible economically.   | 6.4   |
|     |  | Is there a possibility to find petrol in our country?  | The first two months will be exploration to check if there is.   | 1.3   |
|     |  | Will it last for 12 months?  | The exploration activity will be for only two months; however, the whole process will last up to 12 months.  | 4     |
|     | unicipality of<br>nekka, North           | Where is the exact location of drilling?   | We will answer this question at the given time.  | 4.1   |
| Le  | banon                                    | This project equally needs land maintenance and tools. Where is their location? I mean this project needs a large area, so it can have visitors, receive supplies and be repaired. Where will its location be? | First of all, the logistics area will be Beirut as we've already said. It will be in the middle between the two blocks. Every tool, everything will be present in this logistics area in the Port of Beirut.   | 4.5.1 |
| Al- | unicipality of<br>-Mina, North<br>ebanon | How could this project affect tourism?   | When the project starts making money, for sure the country will be revived. Moreover, we will have a huge number of workers coming from outside the country (in addition to the 180 employees already mentioned) which will definitely help the economy. Furthermore, this project will create new job opportunities to local workers and expatriates alike. | 6.4   |
|     |  | You are asking for the communities' opinion to avoid any problems or criticism for sure.   | Noted.   | N/A   |

| Choosing Beirut as a logistical point means that all the activities will be centralized there. Therefore, citizens in Tripoli, Saida, Sourwon't understand that they will actually benefit from the project. Since all the logistics will come from Beirut, people here will be mad at you. I know how the community here thinks  I recommend that you choose two logistical points in Tripoli and in the South to make people feel that they are benefiting from the project. Or else, people won't find it beneficial especially that fishermen won't be able to fish.  When you choose Tripoli as a logistical point, the former will be revived especially that a huge number of workers will be passing by the region. Everyone is moving from Beirut to here. This is a very important interpretation that should be taken into consideration. Because any harm without any benefit will disturb peopleespecially that social media is playing its role nowadays |  |       |
|--|--|-------|
| From where are you going to hire them?   | From abroad because we don't have the required skills and expertise here in Lebanon.                         | 4.7   |
| Are you going to hire 180 technical employees?   | Mainly technical in addition to the unskilled ones.  | 4.7   |
| I prefer if you take two logistical points one in Tripoli and one in Saida.  | In fact, Total chose the location. Maybe they avoided any problematic areas based on previous circumstances. | 4.5.1 |
| Are you going to use a sleeve first?   | Yes, true.   | 4.4   |
| Why clay and water? Aren't you going to drill?   | Yes, we first drill with water and clay. When we reach a deeper zone, we use water and oil.                  | 4.4   |
|  | Wahib was trying to say that at first only water and clay will be drilled. Only when                         |       |

|            |        |                   |   | deeper zones are reached, clay will start   |                 |
|------------|--------|-------------------|---|---|-----------------|
|            |        |                   |   | mixing with oil rather than water.  |                 |
|            |        |                   | The exploration unit will be fixed after drilling?  | Yes, it will be fixed. In fact, there will be only one drilling point which is sufficient to know the block's potential and the amount of natural gas available.  | 4.3.1<br>4.4.10 |
|            |        |                   | So, you will drill directly from the ship?  | True.   | 4.3.1           |
|            |        |                   | Will the installation equipment be on the ship or in the water?   | No, it will be on the ship.   | 4.3.1           |
|            |        |                   | Are you going to work in both blocks?   | Yes, block four and nine. However, in order not to have two logistical points, a common location was chosen for both blocks which will be Port of Beirut.   | 4.1<br>4.5.1    |
| 22/05/2019 | Chekka | Fishermen<br>Coop | Will the drilling exploration cause the fish to escape? Or will it harm the fish?   | The drilling occurs at the depth of 1700 meters, and it has an axe at each end of the height of one-meter. By studies, it won't harm the fish.  | 6.4             |
|            |        |                   | Where will it be located geographically?  | It is not decided upon yet, but maybe between Tabarja, Safra. Among block 4.  | 4.1<br>4.3      |
|            |        |                   | If we look at another country that witnessed such exploration drills, is there a study that occurred there about the effects it had on the fishing and fishermen? | According to the studies, there are no big dangers. Maybe a few things and i am assuming that the project might affect you in having a net gets torn. It might happen that you sail the same waters as the ship coming from Beirut so it will have to sail away from you. These are the kinds of accidents that might occur and with a very low probability in case the safety measures were not respected. | N/A             |
|            |        |                   | We know in France there is an Oil Drilling project too; do you know the effects it had on the Fishery?  | What exactly do you want to know?   | N/A             |
|            |        |                   | Will the project affect the Fishery in Lebanon? It is already very poor, and we do not need the petrol to vanish it.  | A two-months-time "exploration" activity will not affect the fishery of Lebanon. Maybe there is no petrol or gaz.   | 6.4             |
|            |        |                   | The boats that will carry goods to the stations, are they private companies or are they a part of TOTAL?  | There are possible 25 Local Business<br>Contracts so maybe they will sign with local<br>parties.  | 4.5.8           |

| We have a security situation in Lebanon, we cannot sail more than two kilometres into the water, the Armed Forces orders us to retreat   | Something interesting to know. And in case Oil was found and more projects will occur, I am sure they will organize more meetings like this one to reassure you.   | 4.5.6        |
|--|--|--------------|
| This axe doesn't make a certain sound? The drilling causes sound right?  | There will be no noise at all.   | 4.4          |
| So the ships that will move the equipment and goods to the ship, they too have a 500-meters diameter?  | No, they come from Beirut port to the Drilling Ship.  The 500 diameter is around the drilling ship.  | 4.3.1        |
| If what you say is true, that means that this meeting is meaningless! Unless it does affect us, or else why would you organize this meeting?   | We organized this meeting, so you become more comfortable and know more about what will take place. Plus, I am trying to explain that the probability of risk is so low according to studies but of course I want to know from you if there is anything we should take into consideration.   | N/A          |
| What if the project takes three months of time?  And if Oil was found, wouldn't they replace with the temporary drilling shop with another fixed one?  Don't you know how this affected Fishery in other places? | There are no major effects on the Fishery nor on the fishermen.  In other countries the same happens as what is happening now, fishermen express their worries and they take assurances.   | 6.4          |
| Will there be any noise issue?   | In terms of health and safety, increases in airborne noise levels will be limited to those associated with the vessel operations.  There will be no noise at all.  In order to minimize the risk of damage to fishing facilities and equipment, the drill vessel will travel at low speeds and will be supported by guard vessels.  During the exploration drilling activities there will be a 500 meters safety zone around the drill rig, within this zone other vessels will not be permitted to operate. | 4.3.1<br>6.4 |

|                  |         | What is the security diameter of the project?  | In the unlikely event of damage to fishing gear, Total E&P and the exploration drilling contractor will, in liaison with the affected parties, review the damage and negotiate compensation.  500 meters.  | 4.3.1<br>4.5.6 |
|------------------|---------|--|--|----------------|
|                  |         | We do not doubt that TOTAL is one of the best companies in the world. But we have fears concerning our work. | TOTAL is a major energy player, which produces and markets fuels, natural gas and low-carbon electricity. TOTAL's 98,000 employees are committed to better energy that is safer, more affordable, cleaner and accessible to as many people as possible. Active in more than 130 countries, TOTAL's ambition is to become the responsible energy major. | N/A            |
|                  |         |  | Climate issues are an integral part of TOTAL's corporate strategic vision with an objective to have low-carbon business account for around 20% of Company portfolio by 2035.   |                |
| Mount<br>Lebanor |         | How many kilometres are you going to reach?  | 1700 meters.   | 4.1            |
|                  | Lebanon | Why did they choose exactly 1700 meters?   | Maybe because they did some research and found that they can reach 1700 meters.  | N/A            |
|                  |         | If they do not find oil in the first location, are they going to keep prospecting everywhere until they do?  | At the minute, we have these two blocks. At one point, we will be able to determine if there's hydrocarbon potential. If there's no hydrocarbon discovered in block four and block nine, then there will be an assessment and the decision will determine which other block to prospect. But these two blocks are the most likely.                     | 1.1            |
|                  |         | When did they start working on this project?   | The project will take a period of 12 months and we are within this period. It started in 2018.   | 4.8            |

|       |                     | In which specific area will the drilling take place?  | Within the block (block four is 12 kilometres far from the coast but I don't know the specific location). They did not set a specific location yet.  | 4.1            |     |
|-------|---------------------|---|--|----------------|-----|
|       |                     | Where will the drilling activity take place in the preparatory stage?   | From Dbayeh and Antelias, until Anfeh. A logistics base will determine the location of the drilling. This logistics base will most likely be in Beirut.  | 4.3.1<br>4.5.1 |     |
|       |                     | Did you do environmental and social studies on the subject or not yet?  | We are doing these studies now.  | 5              |     |
|       |                     | If they find hydrocarbon potential in Halat, will Halat benefit from anything? (economy, employment and development)  | Total contributes mainly to host communities through income, taxation and employment related to their respective projects. During the exploration phase (2 months), Job opportunities are going to be low. But in the future, job opportunities will be available.   | 6.4            |     |
|       |                     |   | Will we have free gasoline for a whole year if they found oil?   |                | N/A |
|       |                     | Why did you choose Block 4 and Block 9?   | Because the probability of finding oil in these two blocks is higher.  | 1.2            |     |
|       |                     | Does the prospecting activity affect the fish culture?  | No, it does not affect the fish culture. We are six kilometres far from the coast. And the disposal point has already been identified in block four; we will be 12 kilometres far from the coast rather than four kilometres.  As for the industrial activity, it will be mitigated as much as possible.   | 6.4            |     |
| Anfeh | Unemployed<br>Youth | What are the types of accidents that might occur? [after being asked by the moderator for specifics the person specified that she meant accidents concerning fishermen] | During the exploration drilling activities there will be a 500 m safety zone around the drill rig, within this zone other vessels will not be permitted to operate. So fishing boats won't be able to go near the drilling vessel and they will be patrolling that the whole time. The likelihood of accidents is incredibly unlikely. Again, it's just possible realistically. Any potential negative impacts in the worst-case scenario could be people or nets getting caught, but the likelihood of accidents is very minimal and that would be insured. A | 4.3.1<br>6.4   |     |

|   | safety vessel will be circulating around to try to stop any accidents from happening.  |                                |
|---|--|--------------------------------|
| As you may know, Anfeh and Nakoura have the cleanest sea and that makes them a tourist destination. You've just mentioned that chemicals will be poured into the water. The residue will wash up on shore just like what happened a few years ago with fuel. That will negatively impact tourism and many businesses will close down. How are you going to limit the quantity of those chemicals, prevent that danger from reaching the beach and manage to not impact the tourism here in Anfeh? | All vessels contracted by Total E&P Liban will be required to follow international and national requirements with regard to handling of wastewater. The drillship will operate in strict accordance with both the International Convention for the Prevention of Pollution from Ships (MARPOL, 1973/1978), which prohibits the discharge of trash and regulates the discharge of liquid waste and atmospheric emissions from marine vessels. The primary discharges from the drillship will be, drill cuttings, treated wastewater effluent, and macerated food waste. Water will be recycled to the extent practical, and sewage will be treated in on-board wastewater treatment units prior to discharge in accordance with MARPOL and national standards. The support vessels will not be equipped with wastewater treatment facilities but will follow all applicable MARPOL standards.  There will be nothing that pollutes the water.  Used oil and other liquid waste will be stored in sealed containers on board the vessels for disposal at approved facilities on-shore. | 5.3.1<br>5.4.1<br>6.4<br>8.6.2 |
| Then why is this point written in the negatives? [referring to the figure the moderator is using to explain]  | It's been written as possible negative effects.<br>They are a possibility.   | 6                              |
| Will the area where the drilling will take place<br>benefit more than others? From an economic<br>standpoint, what are we gaining other than<br>people coming to Anfeh to buy things from<br>here and job opportunities?  | There is no direct benefit except for the possible 25 contracts with local parties. We are not here to promise anything but in general such activity especially if successful it would benefit the whole country. However, we are just discussing now a 2 month "exploration" activity and not extraction.   | 6.4                            |
| Even with all these procedures, there may still be a small possibility of an oil spill. Is  | The likelihood of an oil spill is one in one million. That's the truth. There's a very low probability that that will happen, but there is a   | 8.6.5<br>8.6.7                 |

|         |                         | there no filtration system or something to be on stand-by in case anything happens?                                       | plan in place. Total who is operating this project have a strict plan for oil spills called the Oil Spill Contingency Response Plan, so if that does happen, they can mobilise their response plan immediately and they can communicate with other international companies to get that in action straight away on their 24/7 hotline. The Spill Plan will also be in accordance with Lebanese requirements so the safest national requirements and international standards. So, it's very unlikely and there's a one in a million chance of that happening but there is a plan in place and if that happens it will be treated straight away.                         |         |
|---------|-------------------------|---|---|---------|
|         |                         | Will you appoint people or put signs so that others know they can't enter the zones?                                      | Yes, I think that would be people aboard the safety vessel. That will be communicated to the fishermen as well. We're engaging with fishermen and they'll be told in advance when the drilling happens and where they can't go. So there'll be clear communication.   | 8.6.4   |
|         |                         | How will they know if this procedure will turn up a result? How will they know if they will find anything?                | During the drilling, they will drill one well and they will be able to determine if there is high enough potential from that one well. They've already completed the seismic surveys to determine where is most likely to find oil. The drilling campaign will be able to determine just from the survey. They will know whether or not there is potential. If there is potential that there is oil there and the results are confirmed the next step is to check whether it's commercial, meaning whether there is potential to sell it and then cut to another process. This company will determine whether it's a yes or no to let them proceed to the next stage. | 1.3 4.2 |
| Bebnine | Municipality of Bebnine | That means you're not preparing a simultaneous study for Block 2 as well?   | No. Our main current concern is Block 4 and 9   | N/A     |
|         |                         | In case the quantity of oil wasn't enough and the study itself wasn't a big deal, on whose charge do these expenses fall? | This study is prepared by the three main companies and Total is the main active operator who'll be mostly responsible for all consequences and results. The Lebanese  | N/A     |

|       |  |  | Government is not related to this program and does not bear any charges.   |            |
|-------|--|--|--|------------|
|       | We are Blo                                 | Are these the only studies conducted concerning this oil drilling plan?  | There are many different kinds of studies conducted on different levels and approaches like Climatology, Geology, Water concerns, Infrastructure, Tourism, and Educational Levels and so on. We will be meeting with several entities and ask them their opinions and register their concerns.   | 3          |
|       |  | We in Bebnine are considered as Block 2, are you going to conduct a study on this Block and Block 4 at the same time?                              | We are currently interested in Block 4 and in the effects that might cause this region on a future level. You know, Lebanon is a small country and Block 4 is not so far from Akkar area.  | 1.2        |
|       |  | What might affect us personally?   | We are considering the worst-case scenario and doing the EIA to determine what potential risks there could be to avoid them or mitigate them.  We can't tell until the end of the study what the exact impacts may be, but we will put in place appropriate and thorough mitigation measures. We know, for example, that the activities will make noise, but we will know exactly what these impacts would be after the study. | 6          |
|       |  | How much is the surface area of Block 4?   | I have registered the number in my papers but will give you an answer later.   | 1.2        |
| Jbeil | Municipality of<br>Jbeil, Mount<br>Lebanon | Will the oil drilling affect the marine life?  | Required studies have been conducted already to check whether the marine life might be affected. Total found out that marine life exists on 1,700-2,000 meters below sea level, yet the fish present are not endangered and there is minimal damage.   | 5.4<br>6.3 |
|       |  | How are the fishermen supposed to know about the barrier at 500 meters? Will you place any signs or indicators for them not to approach that area? | A barrier will surround the ship and is very clear. However, the ship is already six kilometres away from the shore and in general the fishermen never go into the sea that far.   | 6.4        |

|            |        |                   | When will the oil drilling start?  | Block number 4 is set to start in late 2019 with the exploration phase, and the drilling that follows after.   | 1.3    |
|------------|--------|-------------------|--|--|--------|
|            |        |                   | If the ship is minimum six kilometres far from shore as you are saying, and if the studies assured that this project won't affect the marine life or make any geological changes, how am I going to be affected? Knowing that Jbeil is a prominent touristic site and the tourism won't be affected as well. | I am here to get insights from you as much as possible, but I am assuring you as well and informing all the people we are meeting with of the different studies and mitigation measures taken by Total.  | 5<br>6 |
|            |        |                   | Will the ship emit any visible gases during the exploration phase?   | Total have already taken all needed precautions in this regard and the gas emission will be minimal or negligible.   | 4.6.1  |
|            |        |                   | Will the ship produce visible gases during the oil drilling phase?   | I'm not sure of that; Total will give you a more specific answer.  | 4.6.1  |
|            |        |                   | Did Creocean find wastes at 1,700 meters below sea level here in this area?  | I'm not sure if this finding was in Block number 4 or 9.   | 5.4.1  |
|            |        |                   | Who's responsible of hiring people in this project? Is it the Lebanese government?   | I'm not really sure of how the process will be exactly done. But what I know is that Total will recruit experts for this activity  | 4.7    |
|            |        |                   | How to avoid any possible accidents? And what happens if a fisherman had an accident for example? Who will take the responsibility?  | Total will take as much precautions as possible, but we can get back to you for more details if you want.  | 6      |
| 23/05/2019 | Byblos | Fishermen<br>Coop | Any noise or shakes that make fishes get away?   | No, there won't be any internal noise. The only noise will in the air outside the water. The noise will be from actions taken to help the ship such as helicopters transferring equipment and materials. | 6      |
|            |        |                   | Block 4 is close to the shore isn't it?  | It is six kilometres far.  | 1.2    |
|            |        |                   | Will it be on all the area from Dbayeh to North?   | No, they will choose a spot among this area.   | 1.3    |
|            |        |                   | Could fishermen make a petition since it could affect their work?  | As I said before, there won't be no effect, 1 in a million chances. So, no need for a petition.  | N/A    |
|            |        |                   | How far from the shore will the drilling take place?   | The ship will be in one place and it won't move. There will be a 500-metre safety area radius around the ship.   | 4.3.1  |

|                                 | Shouldn't the government repay the fishermen in case their work was affected due to any possible damage?       | I repeat that there won't be any effect on fishermen. All studies showed no effect on fisherman. We will do a report in examining the exploration campaign of the oil drilling by Total, to declare needed measures to prevent or decrease, or avoid or even repaying any possible social or environmental damage.          | 6        |
|---------------------------------|--|---|----------|
|                                 | Closest spot to the shore?   | Six kilometres with 500 meters around as a safe zone.   | 1.2      |
|                                 | Will our work be affected?   | No of course not.   | 6        |
|                                 | Is there going to be any residue from the ships that may affect the sea?                                       | No, it is a chance of one in a million.   | 4.6.3    |
| Vulnerat<br>rginalise<br>Group- | ,  | The Government and several Ministries provided license for these International companies like Total and Novatek.  | 1.2      |
| Women                           | When this project comes into effect, will it affect the coastal life? And how big will the restricted area be? |   | 1.2<br>6 |
|                                 | Of what nationality will the crew be?  | They are all foreigners, and some may be Lebanese experts.  | 4.7      |
|                                 | What happens if the ship doesn't find oil?   | There were many studies and researches before they chose these two blocks. They chose them because they hold higher probabilities of finding oil and gas in these two blocks.   | 4.4      |
|                                 | Sorry but the period of 12 months comes before the probationary period? Or the exploratory period?             | <ul> <li>-Now, we are in the period of two months called the exploratory period. The things I told you about are already put into effect. In this period, the ship will stop to search for oil.</li> <li>-They chose block 4 and block 9 based on a research that showed the presence of oil in these two spots.</li> </ul> | 4.2      |
|                                 | Have they started building?  | Not yet.  | N/A      |

| How many drilling equipment there will be?  Will it be in the centre of block 4?  | One in each block.  They haven't decided yet. The area is from Dbayeh to Anfeh.   | 4.3.1          |
|---|---|----------------|
| How would our area benefit on the touristic side?   | There are 25 signed work contracts with local companies that would benefit the area.  | 6.4            |
| Are the positive effects bigger than the negative ones?  [All women agreed that there can't be  | Research shows that are more positive effects.  | 6.4            |
| anything worse than the actual sea situation.]  |   |                |
| What could you tell us about the leakage from oil pipelines?  In Lebanon there is a problem in water pipes, how can we be sure about what you are saying? | Researches show that there is a one in a 1,000,000 chance of oil leakage in the sea. If by chance this happens, I assure you that Total has a solution for every problem.  I honestly can't answer this question. I can assure you that this is an international research and the information is accurate. Total is an international company. It's not national.  | 8.6.5          |
| Will the air be polluted because of these ships?  | All contracted ships with Total will abide by all International and National regulations concerning emissions management.   | 4.6.1          |
| What is the type of the waste? Is it going be to be thrown into the sea? How will this waste be managed?  | All contracted ships with Total will follow International and National requirements. They will use new technologies for waste treatment. Facilities for collecting shipgenerated wastes were also discussed (like leftovers, wastewater will be recycled). Ships will control the discharge of effluents and reduce atmospheric-emissions. All ships will follow MARPOL regulations to reduce pollution. Waste will be taken in barrels to high and barren mountains of Lebanon | 4.5.7<br>8.6.1 |
| Are the positive effects bigger than the negative ones? [All women agreed that there can't be anything worse than the actual sea situation.]              | Research shows that are more positive effects.  | 6              |

| What will be the effect of 0 iD rilling on the fishing outlure and on fishermen?  Total will conduct a report that will indicate may measures that should be adopted to reduce and prevent all possible damages on fishermen and on the environment.  Is there anything that can force the project to cease?  Will we benefit financially from oil drilling in Lebanon? Or will the money go to cover the State debt?  Farmers  Will we want to address a complaint, how could we?  Will we have any problems with our beloved neighbours concerning block nine?  Will we have any problems with our beloved neighbours concerning block nine?  So Total will not manage the project alone and the government will also actively participate?  So Total will not manage the project alone and the government will also actively participate?  If hypothetically, it turns out that there is oil and gas, Total's business will boom in Lebanon. So what is its goal?  They are conducting studies on oil and gas. What if there isn't any oil or gas, after all that work, what would you do?  They would close down the drill and declare that work, with two will be beneficial from a general beneficial work will take place. The study and the that work, what would you do?  They would close down the drill and declare that there is no il or gas there. That is it. work, what would you do?  They would close down the drill and declare that there is no il or gas, after all that work, what would you do?  They would close down the drill and declare that there is no il or gas there. That is it.  |        |             |  | 1  |     |
|--|--------|-------------|--|--|-----|
| Safra  Vulnerable/ Marginalised Group- Farmers  Will we benefit financially from oil drilling in Lebanon? Or will the money go to cover the state debt?  Will we want to address a complaint, how could we?  Will we have any problems with our beloved neighbours concerning block nine?  Jounieh  Makhluf Sur Mer  Mer  Makhluf Sur All so So Total will not manage the project alone and the government will also actively participate?  So Total will not manage the project alone and the government will also actively participate?  So Total will not manage the project alone and the government will also actively participate?  So Total will not manage the project alone and the government will also actively participate?  So Total will not manage the project alone and the government will also actively participate?  So Total will not manage the project alone and the government will also actively participate?  So Total will not manage the project alone and the work will take place. From it the ministry does not impose anything on Total, they have agreed to conditions and there is a contract between the parties based on which the work will take place. The study says will determine whether there is gas and oil, and the remaining procedure will happen as I've shown you on the figure and will include: a social baseline study, impact assessment, management plans, disclosure To get to here, all of these procedures need to be documented because there is a contract between total and the ministry.  If hypothetically, it turns out that there is oil and gas. What if there isn't any oil or gas, after all that work, what would you do?  They are conducting studies on oil and gas. What if there isn't any oil or gas, after all that work, what would you do?  How will the hotel and restaurant sector  This project will be beneficial from a general  6.4 |        |             |  | many measures that should be adopted to reduce and prevent all possible damages on   | 6.4 |
| Marginalised Group-Farmers   |        |             |  | find the oil they are looking for, the project   | N/A |
| we?  Will we have any problems with our beloved neighbours concerning block nine?  Jounieh Makhluf Sur Mer and the government will also actively participate?  So Total will not manage the project alone and the government will also actively participate?  So Total will not manage the project alone and the government will also actively participate?  Yes, Total will work according to the Lebanese law and to international and national standards. Even if the ministry does not international and national standards. Even if the ministry does not work will take place. The study says will determine whether there is gas and oil, and the remaining procedure will happen as I've shown you on the figure and will include: a social baseline study, impact assessment, management plans, disclosure To get to here, all of these procedures need to be documented because there is a contract between total and the ministry.  If hypothetically, it turns out that there is oil and gas, Total's business will boom in Lebanon. So what is its goal?  If hypothetically, it turns out gas, after all that work, what would you do?  They are conducting studies on oil and gas. What if there isn't any oil or gas, after all that work, what would you do?  How will the hotel and restaurant sector  In the minicutor, you and to say you problems with them concerning any problems with them woll pend pend project will be beneficial from a general. They will dead to so working with the Lebanese government.  They would close down the drill and declare that there is no oil or gas there. That's it.  | Safra  | Marginalise | d Lebanon? Or will the money go to cover the       | Question not answered  | N/A |
| Jounieh  Makhluf Sur Mer  So Total will not manage the project alone and the government will also actively participate?  So Total will not manage the project alone and the government will also actively participate?  Yes, Total will work according to the Lebanese law and to international and national standards. Even if the ministry does not impose anything on Total, they have agreed to conditions and there is a contract between the two parties based on which the work will take place. The study says will determine whether there is gas and oil, and the remaining procedure will happen as I've shown you on the figure and will include: a social baseline study, impact assessment, management plans, disclosure To get to here, all of these procedures need to be documented because there is a contract between total and the ministry.  If hypothetically, it turns out that there is oil and gas, Total's business will boom in Lebanon. So what is its goal?  If hypothetically, it turns out gas, after all that work, what would you do?  They are conducting studies on oil and gas. What if there isn't any oil or gas, after all that work, what would you do?  How will the hotel and restaurant sector  This project will be beneficial from a general 6.4  |        | Farmers     |  | everything you want to say by email. They  | 3.6 |
| Mer and the government will also actively participate?  Lebanese law and to international and national standards. Even if the ministry does not impose anything on Total, they have agreed to conditions and there is a contract between the two parties based on which the work will take place. The study says will determine whether there is gas and oil, and the remaining procedure will happen as I've shown you on the figure and will include: a social baseline study, impact assessment, management plans, disclosure To get to here, all of these procedures need to be documented because there is a contract between total and the ministry.  If hypothetically, it turns out that there is oil and gas, Total's business will boom in Lebanon. So what is its goal?  They are conducting studies on oil and gas. What if there isn't any oil or gas, after all that work, what would you do?  How will the hotel and restaurant sector  Lebanese law and to international and national standards. Even if the ministry does not impose anything on Total, they have agreed to conditions and there is a contract between the two parties based on which the work will take place. The study spas and to it impose anything on Total, they have agreed to conditions and there is a contract between the two parties based on which the moritant pass and oil, and the remaining procedures med will include: a social baseline study, impact assessment, management plans, disclosure To get to here, all of these procedures need to be documented because there is a contract between total and the ministry.  Of course, Total is a private company and it is taking risk like in every investment. It has a goal but it will be also working with the Lebanese government.  They would close down the drill and declare that there is no oil or gas there. That's it.                             |        |             |  | concerning any block. We will start working  | N/A |
| and gas, Total's business will boom in Lebanon. So what is its goal?  They are conducting studies on oil and gas. What if there isn't any oil or gas, after all that work, what would you do?  How will the hotel and restaurant sector  is taking risk like in every investment. It has a goal but it will be also working with the Lebanese government.  They would close down the drill and declare that there is no oil or gas there. That's it.  This project will be beneficial from a general  6.4  | Jounie |             | and the government will also actively              | Lebanese law and to international and national standards. Even if the ministry does not impose anything on Total, they have agreed to conditions and there is a contract between the two parties based on which the work will take place. The study says will determine whether there is gas and oil, and the remaining procedure will happen as I've shown you on the figure and will include: a social baseline study, impact assessment, management plans, disclosure To get to here, all of these procedures need to be documented because there is a contract | 8.3 |
| What if there isn't any oil or gas, after all that work, what would you do?  How will the hotel and restaurant sector  This project will be beneficial from a general  6.4   |        |             | and gas, Total's business will boom in             | is taking risk like in every investment. It has a goal but it will be also working with the  | N/A |
|  |        |             | What if there isn't any oil or gas, after all that |  | N/A |
|  |        |             |  |  | 6.4 |

|        |  | So it will benefit those specialised in this domain?  | Yes, but in the long run, if we do have oil and gas it could benefit us economically. That will then benefit tourism and other related things. Something small could lead to better things. We could reach that stage. Total has taken on this project personally in collaboration with the government. That means it's paying for this project.                                 | 6.4                     |
|--------|--|---|--|-------------------------|
|        | Informal<br>Business<br>Fishermen  | Everything will be done within these two months?  | No, the oil drilling operations will start within these two months. The whole study is for a year. And the rest depends on the results of the drilling.  | 1.3                     |
|        |  | As you said if they did this platform, can the fishermen pass by it?  | If it's near this point, some problems might happen since anything that objects fishermen should be discussed and debated, noting that everything is done legally and in accordance with certified studies and surveys.  |                         |
| Beirut | United Nations<br>Educational,<br>Scientific and<br>Cultural<br>Organisation<br>(UNESCO) | Do these containers remain in Lebanon or are they sent out of the country?  | An agreement between TOTAL and the Ministry of Energy and Waters was signed "Decree 8633 of 2012" and includes all wastes management procedures, in addition to the International Intervention MARPOL.  Not to mention that TOTAL has its presence in 130 countries whether and thus is an International company that never fails to sort out any waste management difficulties. | 8.6.1                   |
|        |  | You mentioned that you put the wastes in containers, right?   | After the treatment process, all the wastes are put in well-sealed containers.   | 4.5.7<br>4.6.5<br>8.6.2 |
| Dbayeh | Extreme Dive<br>Centre (XDC)   | And that is block 9? [the interviewee asked this question after the interviewer was explaining where does block 9 starts and where it ends] | Yes  | N/A                     |
|        |  | Where do we stand, what can we do?  | I will start by asking you the question and you can answer and ask me whatever you would like.   | 3                       |
|        |  | Total is a French company, right?   | Yes, it is.  | N/A                     |

|            |       |                   | What do mean when you say they might crash into each other? (she was talking about fishermen)   | I mean boats that are sailing where accidents might happen.  | 6.4    |
|------------|-------|-------------------|---|--|--------|
|            |       |                   | Two months so that they can install the platform, right?  | Yes  | 1.3    |
|            |       |                   | What are the nationalities of the workers?  | They are mostly Foreigners. I don't have a clear idea on all of the nationalities. Maybe some of the experts are Lebanese but who live abroad, because you do know that this major specifically is rare to find here in Lebanon. Fresh graduates don't have the needed experience to be involved in this kind of project.  | 4.7    |
|            |       |                   | Is it certain that they will start?   | They are currently signing off the contracts so that they can start their preparations to start the drilling.  | 1.3    |
|            |       |                   | 12 months starting when?  | Starting after we finish all of the procedures and preparations.   | 1.3    |
|            |       |                   | Do you have an idea on the depth that they will start their drilling?   | 1,700 meters   | 1.3    |
|            |       |                   | Is block 4 the one facing Jounieh?  | Exactly, It extends from Antelias to Anfeh   | N/A    |
|            |       |                   | These blocks, one two and three are the futuristic blocks?  | They could be futuristic, but when total conducted studies before, the studies were made to see the surface of the water, if there was any historical heritage in the places that they were considering, and the probability of actually finding oil. In fact, they are putting a lot of money into this project so they can see if there is gas or oil in that area. So the studies showed that those two blocks are the most probable blocks to have oil. The rest of the blocks have a slighter chance of having oil. | 1.2    |
| 25/05/2019 | Abdeh | Fishermen<br>Coop | The study of the (impact on the environment) is not finished yet.  This means that the final report of the impact on the environment is not provided. | That is right.  After all the meetings we are conducting with fishermen, and relatives of fishermen, with females, and with all the people who live in the marine communities; after all this, we will meet with a wider social entity like workers.   | 5<br>6 |

|            |        |   |   | After all these meetings and opinions of people, everything will be put in one report, so we can evaluate the negative and positive impacts of this project.  |            |
|------------|--------|---|---|---|------------|
|            |        |   | What you are saying is that the fishermen can sail and fish as usual with an exception of staying away from the project's drilling ship.  | That is right   | N/A        |
|            |        |   | I want to ask about the drilling process,<br>drilling by itself causes vibrations. Won't<br>these vibrations cause damage to the fishery<br>in the sea?   | I already told you about the noise, there are no vibrations, and I will now show you pictures of the pipe. As you can see, it is more like digging water well in the ground.  | 6.4        |
|            |        |   | When you say the project will start by the end of the year, this means there is a three months period of time till the report comes up right?   | Till announcing the result of the environmental study, we are doing. That is right.   | 1.3        |
|            |        |   | You want to convince me that all these vessels and pipes and drillings will cause no damage to the fish and fish eggs? Excuse me, I might not know much about oil production, but I do not believe it at all. | We are here to explain to you. We want to listen to your concerns. Our aim here is to provide you with as much knowledge as possible about the project.   | 6.3<br>6.4 |
| 27/05/2019 | Dbayeh | bayeh Joe Branding<br>and 50/50<br>Organisation | Before we start, my main question is why did<br>you contact us and what's your goal in<br>interviewing us? And who are you taking as<br>an example/sample to base on your study?                              | The samples we're basing our study on are people who are mainly in contact with the regions we're interested in (regions situated in the specified blocs). They are usually people who are living onshore and offshore and are aware of the socio-economic situation in the region. | N/A        |
|            |        |   | What are the companies engaged other than Total?  | Novatek and Eni   | N/A        |
|            |        |   | Can we have a copy of the Logistic base?  | Will ask to send you whatever document possible   | N/A        |
|            |        |   | Are the 180 expert employees foreigners or there's a specific quota for Lebanese?   | A specific quota for Lebanese might exist since we know In Lebanon not enough standards and experiences for these studies are available.  | 4.7        |
|            |        |   | But we have plenty of experienced people in Lebanon. However, they are being taken abroad   | Yes, exactly! That's the problem, there are no available experiences in Lebanon since Lebanese people are studying and deciding then to travel and work permanently abroad.   | 5.5        |

|  |         |  |   | Thus, we can say that those experts could be Lebanese.   |                |
|--|---------|--|---|--|----------------|
|  |         |  | Is there any quota that says that there should be a Lebanese recruitment?   | There's a high possibility but we haven't reached this level yet. We don't know still who will be taking part in this study. Everything is put under study. There will be 25 contracts with local companies, but nothing is defined yet.   | N/A            |
|  |         |  | How many kilometres do fishermen usually cross in the sea?  | Fishermen don't usually cross a distance greater than two to four kilometres as far as i know.   | 5.5            |
|  |         |  | But the employees will start working from now, right?   | Yes, of course. In fact, this study is for acquiring more knowledge about the social and economic impacts of these drilling operations on people who are living or working on the shore. Our goal is to work on the negative impacts and try our best to find the best solution. | 4.7            |
|  |         |  | How much will this process take time?   | (The interviewer explained further the process and the study)  | 1.3            |
|  |         |  | How much is the probability? Aren't they drilling and digging based on the knowledge that gas exists?   | Look I'll explain more while reviewing together the brochure.  | N/A            |
|  |         |  | Is it possible there's no gas?  | Yes, there's a high probability.   | N/A            |
|  | Batroun | Atroun Lebanese Association for Safety and Emergency | Is this a scanning process or a drilling one?   | We are already done with the scanning process and they knew exactly where to start drilling. Now they're going to start with that to check if the amount is commercially enough for selling if available.  | N/A            |
|  |         |  | How will this project increase the employment rates in Lebanon if all the 180 workers are foreigners?   | The employment rate will increase but not during the first two months. As for now, expertise is needed and there is no time to train people, that's mainly why all the workers during these two months are foreigners.   | 4.7            |
|  |         |  | I want to say that I don't trust anyone. Total is an international company I agree, but who is the responsible from the Lebanese government in case something bad happens? There should be a Lebanese | What I can assure you is that there will be centres for refining and discharging on the ship. There will also be some containers to store the wastes and any residues so that they would be transferred to other containers  | 4.6.5<br>8.6.1 |

|       |  | expert on board that represents Lebanon and the Ministry of Energy. He should examine whether waste is being recycled in a proper manner or no.       | based on the land. And further, Total is collaborating with the Ministry of Energy and Water and they are also following Lebanese laws.  |                |
|-------|--|---|--|----------------|
|       |  | What happens after transferring the wastes to the containers on land? Where will they be but next?  | I'm not sure, but I can say that TOTAL definitely follows international and Lebanese standards and won't allow any damage to happen. There will be a md plant and they will manage all the wastes.   | 4.5.7<br>8.6.1 |
|       |  | As an NGO, I need to know what time of residues will be discharged?   | We can get back to you for that  | 4.6            |
|       |  | If there exists spring water in the sea, will this affect the groundwater later on?   | They have done studies for that and of course they won't harm marine resources. But if you need further details I am saving all of your questions  | 5<br>6         |
|       |  | I am afraid there will be spills in the sea. I know you said there is a one in a million chance. But my question is, will they tell us if it happens? | Needs follow up  | 8.6.5<br>8.6.7 |
|       |  | I am asking the government to put Lebanese experts to make regular inspections. Will she do that?   | Needs follow up  | N/A            |
|       |  | Does the Lebanese government have any authority in this activity?   | Needs follow up  | N/A            |
|       |  | Will Lebanese workers get paid?   | Needs follow up  | 4.7            |
|       |  | Will they ask NGOs for any consultations?   | Needs follow up  |                |
|       |  | Did they really examine and study earthquakes in our area?  | They have done a lot of studies, but will also get back to you for this  | N/A            |
| Anfeh | Anfeh Municipality of<br>Anfeh, North<br>Lebanon | On which point will they work?  | They haven't located the exact point yet but the block is determined and the priority area within as well. They will locate the point based on the probability system and their experience. They don't need more than one point so once selected they will start drilling. | N/A            |
|       |  | How the 180 worker will be selected?  | Most of them are expertise; they have selected specific people because they don't have time to search for expertise to recruit so they will select people with background experience.  | 4.7            |

|         |              | How will the pollution affect the area?   | No answer  | 6            |
|---------|--------------|---|--|--------------|
|         |              | What did the EIA come up with?  | No Answer yet  | N/A          |
|         |              | How do you see that this project will benefit Anfeh?  | If this project benefits Lebanon than it will directly or indirectly affect the area.  | 6.4          |
|         |              | How will this affect Anfeh?   | First of all, the recruitment is in Beirut so most probably the Anfeh citizen won't benefit from any job opportunities at this stage. Right?  As a coast area you will be affected by the phenomena applied but not included in the  | 6            |
|         |              |   | work.  |              |
| Batroun | San Stephano | How far will they drill under the bottom of the   | Between 4,500 and 5,000 meters.  | 1.3          |
|         | Beach Resort | sea floor?  |  | 4.4          |
|         |              | You've said that everything will be exported from Beirut's port. Which means that everything will mainly be located in Beirut? We won't benefit from anything. Products will be coming and going from the Beirut region. We won't practically be benefitting.   | The people who are going to be working on this project will not stay in one point. Everyone who will be placed across from this area will want to explore it. They will have the mentality that will push them to see its situation and the touristic sites. Also, when job opportunities will be given here, people will check the available and safe spots in the area. Maybe people won't want to go to the north and they prefer this region which is closer. But again, this process is too short now and things will get more beneficial is there is gas and the extraction activity starts. | 4.5.1<br>4.7 |
|         |              | As for beach resorts that are close to the bloc that will be set up here. How will it possibly impact us positively and negatively?   | Positively, if the drilling takes place here at this point [interviewer seems to be showing the interviewee a picture], the establishment you have here might benefit from hotel rooms. Of course, I am not promising anything but I am giving examples.   | 6            |
|         |              | Those people had access to the region. They're saying that main area will be in Beirut only, so if those workers were to explore, they'll only go to Beirut. A worker won't finish his job there then travel from Beirut to Batroun to visit. [Mr. Wissam clarifies that a worker on a rig doesn't leave it | I am checking if anything concerning the matter is mentioned in the documents I have here with me. I have with me a few questions that have direct answers to them. A direct benefactor has not been mentioned here, but I will write down your question and we will provide you with a direct answer.   |              |

|  |        |                                | at the end of each day]. I mean that, when a worker finishes, he's going to visit the closest region to the port he's stationed at.  So locals will start to understand more about the subject?  [asked when the interviewer explained that during the process they will transfer technical knowledge to locals] | Exactly. As InfoPro will be also conducting focus group discussions with locals and Total and Dar Al handasah also got engaged with municipalities and invited people to public consultations  | N/A |
|--|--------|--------------------------------|--|--|-----|
|  |        |                                | It'll take only two months to dig those 5,000 meters?  | Yes. [interviewee then added that that short period was surprising]  | 1.3 |
|  |        |                                | With whom are these 25 contracts signed?   | 25 contracts that include all the companies, organizations in the area and in Beirut and everything related to this project. In addition to business that benefit from it, like restaurants. Those are institutions they will sign contracts with during these two months. Nothing signed yet. | N/A |
|  |        |                                | There will either be a fire, or someone will get hurt. Something along those lines.  [interviewee interrupted while the interviewer was listing possible accidents]  | Correct. The risk of that happening is one in one thousand or one in a million as a percentage of risk working with Total. But that number exists, it isn't zero. However, total is following international standards to minimize all the risks as much as possible.                           | 2   |
|  |        |                                | As fishermen here, once you start working, we will all be unable to work here at all.  | When it comes to the fishermen, just to give you an idea, if you look here, you can see that the drilling vessel is fixed over the well. It won't take over the whole sea.   | 4.3 |
|  | Dbayeh | yeh Yacht and<br>Boat Services | And, will these studies explore the 1700 meter previously mentioned?   | Yes, whilst taking into consideration the distance (i.e. kilometres) from the shore line since the type of fish available in each zone differs.  | 1.3 |
|  |        |                                | So, let me recap. Fishermen are still far away from this zone. The work will be conducted in how many zones?   | Only one in this area.   | 1.3 |
|  |        |                                | For sure this project won't affect the Lebanese shore line as much as the various practices taking place in the region right now.  | True.  | 6   |

|         |                   | Will they install anything on the water surface?  I mean mud and so on. Because there are various fish types in this area (i.e. Tuna and Marlin which stay near the water surface) that fishermen benefit from. So, will this area be polluted? | The base only.  Total will be working on removing this waste through collaborating with international companies whilst taking into consideration the international standards. Later on, the waste will be recycled. As we said earlier, pollution will be minimal (if any) since Total is working hand in hand with leaders in this field. Indeed, Total already conducted a study (EBS) in an attempt to estimate the side effect of oil drilling on the marine life. | 4.3<br>6.3 |
|---------|-------------------|---|--|------------|
|         |                   | I think that fishermen are fishing at approximately 500 meters. Could you guarantee that they won't be affected if you drill 1700 meter beneath water?  | The studies' conducted are meant to explore the various effects of this project (i.e. positive and/or negative). In fact, the negative effects of this project are minimal as shown by previous and hopefully future studies.  | 6.4        |
|         |                   | Will the drilling depth be 1700 meter in each block?  | Yes, we will be discussing all the details later [Details were discussed later thoroughly].  | 1.3        |
|         |                   | Will the actual drilling process take 12 or two months?   | The actual drilling process will take only two months. However, they need 12 months to prepare for and install the base.   | 1.3        |
|         |                   | What do you mean by "studies affecting marine life"?  | These studies aim to explore the negative influence of oil drilling on the marine life (i.e. what type of fish is available in this area, which fish types could be affected).   | 5.4<br>6   |
| Batroun | Fishermen<br>Coop | Will drilling affect natural resources?   | The exploration drilling activities will be carried out offshore.  The minimum distance of Block 4 drilling area from the nearest point of shoreline is 6 km.  The minimum distance of Block 9 drilling area from shoreline is 22 km.  Let me explain more about the project:  TOTAL E&P Liban, in its capacity of Operator, is planning to carry out exploration  | 1.3<br>6   |

|            |   |  | and Block 9 in 2020.  They have done a lot of studies to minimize the negative risks as much as possible. Marine natural resources will not be affected especially in this small diameter of work. International protocols and Total internal protocols will be followed. They have high standards in work.                                 |              |
|------------|---|--|---|--------------|
|            |   | Why is it called a BLOCK? And if oil was found, how will it affect Batroun?  | First of all, let us not rush into things, I will begin by explaining the project to you and afterwards please feel free to ask any questions you have.   | N/A          |
| Kafarabida | Fishermen<br>Coop   | If they drilled in this location, then our work will be stopped. What we will get in return?   | Actually, they won't drill in near locations and the fishing activity should not be affected. I will explain now everything in this presentation.   | 4.4<br>6     |
| Beirut     | United Nations Educational, Scientific and Cultural Organisation (UNESCO) | I am really concerned with the pollution.  Is Total willing to destroy our archaeology?  Our conference is in October and you are telling me you are starting in September. How come?  What are your plans? Will we be able to read your mapping plan and understand it? if anyone could give us a copy it would be amazing. | Total is an International company; they have their own standard. They will abide by all regulations and Laws.  There will be 25 work contracts with local companies and NGOs. I am not sure but maybe there will be contracts with archaeologists.  They are starting in late 2019, September or October, I cannot give you the exact date. | 6            |
|            |   | If the nearest distance is 6 km, it means we will be able to see the ship.  Apart from archaeology and pollution, people come to Lebanon for its sea. If they finish, they will leave everything and go. We don't want that to happen.   | 6 km is not a small distance, but yes, we will<br>be able to see the ship. Now they are in the<br>exploratory period. Based on results, they<br>will know if the quantity of petroleum is<br>commercial and worth the work. And if they<br>will stay or leave   | 1.3<br>5.5   |
|            |   | These ship vessels you talked about will cause so much pollution alone.  | Total has ships with filters and sewage refining equipment. They also have containers for waste. They try to make the positive effects bigger.  | 4.6<br>8.6.1 |

| 30/05/2019 | <b>30/05/2019</b> Dbayeh | bayeh Anglers | How can the positive effects increase?  | First, we need to identify them, and Total is working on increasing those positive effects   | 6.4 |
|------------|--------------------------|---------------|---|--|-----|
|            |                          |               | How can you create positive effects?  | We need to identify it in order to increase it   | 6.4 |
|            |                          |               | How long will the drilling last?  | We are currently within the 12-month period for conducting the study and drilling. The drilling in Block 4 will end by the end of 2019. Including those 12 months, two months are just for drilling, unless unplanned weather conditions occurred. | 1.3 |
|            |                          | platforms?    | When the drilling starts, they will put some sort of cover on the pipeline, and it will be compacted, so there can be no leaks. After getting done with the exploration drilling, they will see how much oil we have and decide if they will extract it or not. If there was oil but in small quantities or maybe there wasn't at all, then they will pack up and leave, and they will close the whole with cement like it was never there.   | 4.3.1  |     |
|            |                          |               | You talked about potential benefits. If we look at the matter, we might have an economical benefit and not a social one. Job vacancies might become available but only to those who are specialized in oil engineering, and I doubt that there will be any decrease in oil prices, and even if it did happen it is the government's job to do so. So Total should try and compensate for those that are being affected by this project such as fishermen. They could offer legal fishermen a discount on oil prices, maybe use their boats for transportation services. Some people might get excited to know that there is oil drilling happening here and they might want to go and see what is happening, so fishermen can use their boats for that purpose. | Total contributes in the hosting countries, through paying taxes, providing jobs related to the project, and its operations.  Will there be job opportunities for locals?  | 6.4 |
|            |                          |               | If they do find oil in both blocks, what ensures us that the government won't want to drill up the entire coast?  |  |     |

| In which direction will they start the work?   | The drill point is between Sabra and Okeibe, far for about 12 kilometres from the coast.  | 1.3      |
|--|---|----------|
| Can you please remind us the distance from shore?  | It will be 12 kilometres. Block 4 starts at six kilometres from shore, but the drill point that they have decided on is 12 kilometres from shore.   | 1.3      |
| As fishermen, what is our benefit in this entire project?  | We will talk about this matter during our meeting.  | 6.4      |
| We want to know why you are taking the opinion of fishermen  | Because your work is at sea, and you fish near the platform, so we want to know what your fears and worries are, we want to estimate the environmental effects.   | 3<br>6.4 |
| I didn't see any job opportunities for fishermen. You will have 180 people on board and most probably they'll all be foreigners, so why not offer job opportunities for the people whose jobs are going to get affected by this project, it will be as a way to compensate.            | This is where we talk about probable benefits. In case they did find oil then job opportunities will increase, it is probable as well that the people working on the boat will activate the economical circuit. | 4.7<br>6 |
| Everything that they do at sea damages it. The drilling will damage it, the exploration, and other things. Fish will move away. Maybe after they do find oil and start extracting it, it could have benefits, we might then have fish aggregations around the extraction.  [inaudible] | According to Total, there's a one in a million chance that this might happen.   | 6        |
| You are taking the opinions of fishermen, but I don't think these are only formalities. As fishermen we won't have benefits?   | Moderator: Why did you consider them as formalities?  | 3        |
|  | Because our opinion won't matter, we aren't the only ones that work at sea  |          |
|  | Moderator: Yes, you are samples of people that work at sea.   |          |
|  | Even less than sample if I may say  |          |

|           | Seasonal fish that we benefit from, it will surely now change its direction as long as there's drilling, such as Tuna.         | Until now, studies have shown limited damage on fishermen. Our report will examine the exploration campaign, and define the necessary measures to stop, reduce, prevent, or compensate the negative environmental effects it has.   | 6.4        |
|-----------|--|---|------------|
| Fishermen | The sea will suffer from big damages because of this drilling, will the parties in charge be able to compensate those damages? | EBS studies showed until now, limited effects on fishermen. Our report will examine the exploration drill campaign held by Total, and define the necessary measures to stop, prevent, decrease, limit, or compensate it's damaging environmental and social effects.  | 6.3<br>6.4 |
|           | Six kilometres starting where?   | From shore, you go out six kilometres. The Block begins at six kilometres from shore.   | 1.3        |
|           | What are the negative side effects?  | We will try to know that from you later on.   | 6          |
|           | If they started the drilling in Block 4, what would they do if there was leakage in oil? This is what matters to us most.      | In this study we will talk about the negative and positive effects that can occur, as well as this subject you have laid. When they want to drill, they have this sort of cover that covers the pipeline. It will also be compacted so there can't be any leakage. The multinational company Total, specialized in this matter, confirmed that the chance of having this leakage is one in a million. They also confirmed that in case a leakage did occur, they will handle it, and if they needed any specialized help from Europe, they will ask for them to come here to end any probable danger. | 6          |
|           | How many job opportunities will the Lebanese have in this entire project?  |   | 4.7        |
|           | You talked about ten trips to the platform, for whom these trips will be?  | Those trips are for the crew. If they need anything from the base, they will go get it. Or if they need to transport some things. They might change a group of workers. There will be 180 people on board. Those are workers of the field and have already concluded contracts with Total. In between those 180 workers there could be Lebanese workers. But concerning new contract there will only  | 4.5.8      |

|   | be 25 new ones, that could be related to essentials like food and water.  |            |
|---|---|------------|
| My question was, there are many Lebanese that are working on the platforms, some work in Saudi Arabia, in all over the world, had Total made the effort of finding those people because they are competent? | Total is a private company. After they complete the exploration drilling, if the Lebanese government had in her conditions book that needs to be a certain percentage of Lebanese workers, then that would be another thing.  | 4.7<br>6   |
|   | [This correction is provided after the meeting to ensure all published data is accurate. Opportunities for employment are limited during the exploration phase of the Project. Offshore drilling personnel are highly skilled with many years training. The roles are very limited in duration. Contractors will be encouraged to consider local labour wherever possible and to advertise vacancies locally. In the event that the Project goes into a development phase, employment of Lebanese nationals will be prioritised]. |            |
| How long will it take for the drilling to end?  | The drilling will last for two months. After that we have a five-year range for installation. We need at least ten years to start extracting oil.   | 4.4        |
| Will Total have on its website a daily update on its progress and plan, that a civilian can keep track of, or is a citizen not allowed that kind of information?  | You can go on the website and see, but I don't think there's anything like that, but they have your question now and they will respond to you on that.  | N/A        |
| Was it already agreed upon who will be in charge of food, transportation, did it happen or is it still just a study?  | I don't know if they have made those contracts already, but anyway you have the email, so if you have a company and want to apply for a biding, you can go on the website and see what's available, and they will get back to you.  | N/A        |
| What is the contract between Total and the Lebanese government?   | I don't know, I am only here to talk about the exploration drilling.  | 2          |
| Tuna fish comes at six kilometres deep, if you are going to take up 1,700 m2 then we won't be able to fish tuna anymore.  | No, we will only take up 500 meters around the boat.  | 1.3<br>5.4 |

|            |            |                         | I know that the installation of the base takes a lot of time. You haven't started the installation?  | This boat [shown in the picture] will be placed in national Lebanese waters, at a point where they think that there's a bigger chance of finding Oil.   | 1.3        |
|------------|------------|-------------------------|--|---|------------|
|            |            |                         | Did the drilling start?  | We started with the studies to estimate the environmental and social effects. We form a plan and give it to the competent authorities, then the drilling process starts.  | 1.3        |
|            |            |                         | What is the environmental effect that the clay factory will have?  | All of the ships that have contracts with Total need to take into consideration all of the worldly known conditions to when it comes to handling waste. They will strictly work to stop any pollution that could result from boat. This agreement prohibits waste disposal, and that arranges waste disposal and any liquid or gas emissions. Everything resulting from the ships, either liquids or gas, everything will be under control. First waste disposed by the boat will be, drill waste, meaning rocks or sand, sewage water that was already processed, food waste, it will be recycled as much as possible according to the agreement and the national and international standards. The ships helping out the drill boat, will take all of the waste to the logistic base where they will treat and dispose it. | 6          |
|            |            |                         | Do you know where the drill point is?  | What I know is that its 12 kilometres far from shore. Approximately in the middle of the block.   | 1.3        |
|            |            |                         | When they are drilling, you said they will take the rocks and sand resulting from the drill, but will the water become troubled?   | As I said before there will be some sort of cover, so nothing will leak.  | 4.6        |
|            |            |                         | Fish that immigrate pass through this Block, as fishermen we wait for those fish to come so we can fish them out of the sea, sell them to make a living. How much will this process affect those fish? | Let me get back to you on that. I will finish talking about the project, and I have heard a question and answer sheet, and I will answer your question.   | 5.4.4<br>6 |
| 19/08/2019 | Mansourieh | National<br>Council for | I am pleased that the environment is being considered and an EIA is being prepared.  | Noted.  | 5          |

|            |        | Scientific                      |  |  |     |
|------------|--------|---------------------------------|--|--|-----|
|            |        | Reasearch<br>(CNRS)             | Stakeholder is a geologist and has expertise in the oil and gas sector. He has come papers on oil spills that he will share with us.   | Noted.   | N/A |
|            |        |                                 | Stakeholder mentioned that he reviewed the SEA and provided comments.  | Noted.   | N/A |
|            |        |                                 | Since neighbouring countries have already started oil extraction, the stakeholder mentioned that it is all from the same common reservoir/basin except for Cyprus, there is no proof that it is the same reservoir as it is a bit far. It is the same basin as occupied Palestine. | Noted.   | N/A |
|            |        |                                 | Stakeholder mentioned that in his opinion if no accidents occur during the drilling and exploration then there is no risk of oil spill. He doesn't expect any major spills to occur.   | It was explained that a contingency plan will be in case of accidents.             | 8   |
|            |        |                                 | Impacts from oil differ from the impacts from gas and this should be considered in the preparation of the EIA.   | Noted.   | 6   |
|            |        |                                 | Oil spill can be determined through satellite images such as Aster as part of the monitoring process.  | Noted.   | N/A |
|            |        |                                 | Recommended that there should be monitoring during the drilling activities as any small seepage can be a risk.   | Noted.   | N/A |
|            |        |                                 | It is essential to meet with DRM unit for disasters.   | Noted with thanks.   | N/A |
| 20/08/2019 | Beirut | MOA Department of Fisheries and | Request to share coordination's of the well in order to educate the fishermen and inform them the type of activities that will take place.   | Noted.   | 4.1 |
|            |        | Wildlife                        | Requested if it would be possible to share the social baseline study as MOA update yearly their reports and it would be interesting to obtain the data collected   | Stakeholder was informed that this will be in the EIA which will be posted online. | 5.5 |
|            |        |                                 | Requested the possibility of having someone from MOA present during the drilling operations.   | Noted.   | N/A |
|            |        |                                 | It is essential that any letter of invitation should be sent one month ahead of the  | Noted.   | N/A |

|            |                       |  | meeting/event or at least 10 days before by email to ensure attendance.   |  |     |
|------------|-----------------------|--|---|--|-----|
| 21/08/2019 | <b>D8/2019</b> Beirut | Beirut Ministry of Culture (MoC) Directorate General Of Cultural Affairs | On the 24th and 25th of October, there is a workshop/conference at UNESCO highlighting the importance of archaeology on water in collaboration with Honor Frost. LPA is involved and will attend and would also like Dar/RSK/Total/Eni/Novatek to attend. | Dar will relay the message to RSK and Total and requested that an official letter is sent to Dar informing the purpose of the meeting. Dar will also be interested in attending.                           | N/A |
|            |                       |  | Requested the list of potential companies, authorities' focal points that would be interested.  | Dar informed her that the list we have is from LPA and it is best to ask to provide the list of concerned people as we are not sure we are allowed to provide such information without their consent.      | N/A |
|            |                       | Ministry of Culture (DGA)  | It is important to officially inform MOE about the waste which was found during the archaeological survey and suggested that the archaeologist who did the survey for Total attend and give a lecture during the Workshop on the 24th and 25th.           | Dar will relay the message to RSK and Total.   | N/A |
|            |                       |  | Someone already visited and interviewed a couple of months ago and provided with the same BID.  | Dar explained that the person who visited her was part of InfoPro team and explained their mission and what the target of the meeting today is, and also explained again the role of InfoPro, Dar and RSK. | N/A |
|            |                       |  | Visual impacts are the main concern especially for visitors going to the beach.   | Dar explained that drilling is expected in December which is a low season for beach (winter) and therefore the impact will be minimal.   | 6.4 |
|            |                       |  | Why did LPA send you to MoEW to ask about EITI, they should have all the required information?  | We asked for a contact person/focal point from MoEW to meet with for data collection. LPA are not aware of the questions we are asking but we thought you might be aware of what is going on.              | N/A |
|            |                       |  | If there is any information that you require and is not available on the website, you can contact me and I will dig deeper into it.   | Noted, thank you   | N/A |
|            |                       |  | For any invitation letters, please make sure to send us the letter at least 2 weeks ahead   | Okay we will.  | N/A |

|                          |            |   | of time because it takes time to process and to reach the right person.   |   |        |  |        |          |                                       |   |     |
|--------------------------|------------|---|---|---|--------|--|--------|----------|---------------------------------------|---|-----|
| 23/08/2019               | Bir Hassan | CNRS  | Does the project involve Marine Survey or only based on data collection? Any report   | Results will be provided in the EIA report done by Creocean company.  | 5      |  |        |          |                                       |   |     |
|                          |            |   | was produced with the results? Did TOTAL use an ROV?  | After a 20-day expedition, TOTAL mentioned that a lot of waste and tripods were witnessed in the deep sea.                                      |        |  |        |          |                                       |   |     |
|                          |            |   |   | The pictures which were gathered using ROV were provided in the slides as part of the stakeholder engagement and public participation sessions. |        |  |        |          |                                       |   |     |
|                          |            | If there is any information that you require and is not available on the website, you can contact me so I can send it to you. | Noted, thank you.  [post-meeting update: CNRS (Geophysical, NCMS and RS departments) sent a range of additional information/reports to Dar/RSK. This information has been included in the | 5   |        |  |        |          |                                       |   |     |
|                          |            |   |   | baseline chapter].  |        |  |        |          |                                       |   |     |
| <b>26/08/2019</b> Beirut | Beirut     | Beirut  | Beirut  | Beirut  | Beirut | Beirut   | Beirut | irut DRM | Are you working in parallel with LPA? | Dar and RSK (UK) are the consultants of Total, the project Proponent. We were hired by RSK in the UK. We are working with them as they are the authority involved along with MoE, so we have to submit the scoping and EIA reports to both LPA and MoE for review and approval. | N/A |
|                          |            |   | So as authority you need to work with MoE?  | We work with both.  | N/A    |  |        |          |                                       |   |     |
|                          |            |   |   | Does Total have a contingency plan? Can   |        | The EIA will highlight all the hazards that will | 6      |          |                                       |   |     |
|                          |            |   | they give us the hazards?   | be considered.  | 8      |  |        |          |                                       |   |     |
|                          |            | If someone has a heart attack on board, what will happen?   | There are vessels that will be commuting back and forth. There are other options being considered such as helicopter.   |   |        |  |        |          |                                       |   |     |
| <b>27/08/2019</b> Beirut | Beirut     | eirut Directorate<br>General of<br>Land and<br>Maritime<br>Transport  | I will listen to your questions and help where possible but for any information you require please send an official letter stating what you require, and we will officially respond.      | Okay, thank you.  | N/A    |  |        |          |                                       |   |     |
|                          |            |   | Was a marine survey conducted?  | Yes, Total hired Creocean to perform the marine studies offshore.   | 5      |  |        |          |                                       |   |     |
|                          |            |   | Where did you conduct your Public Consultation session?   | At Radisson Blu Verdun on the 24th of May 2019.   | 3.4    |  |        |          |                                       |   |     |

| 28/08/2019 | Beirut | irut Port of Beirut  | Did you know about the ship that came a few months ago and did a survey for Total?   | Yes, the results of the survey will be used in the EIA.  | 5          |
|------------|--------|--|--|--|------------|
|            |        |  | Can we get a copy of the EIA?  | The EIA will be published online and you will be able to provide your comments. We also plan on conducting a public consultation session soon, we will send you a letter of invitation.  | N/A        |
| 30/08/2019 | Beirut | Ministry of Tourism  Ministry of Displaced   | Recently there was a study done, do you have the SEA report?   | Yes, we do, what was done was at a strategic level which is a step before this one. Our scope is more specific to the Environmental and Social Impact Assessment of only the exploratory phase which is the first ESIA being done for this sector in Lebanon.                      | N/A        |
|            |        |  | I don't have details on the equipment that will be used, how will things work?   | There will be a logistic base at the port of Beirut where transportation will take place through the sea.  | 4.5.1      |
|            |        |  | Where is block 4, is it near Anfeh?  | Yes.   | 4.1<br>5.2 |
|            |        |  | Is it only exploration?  | For the time being the EIA is only for the Exploration stage.  | N/A        |
|            |        |  | Why is Ministry of Displaced involved in this?   | As part of the assessment, we are taking into consideration the social aspect and whenever we address social aspects, we also look at the vulnerable groups which include displaced.   | 5.5        |
| 03/09/2019 | Beirut | Beirut Lebanese<br>Atomic Energy<br>Commission   | Did you already do the study that you are talking about?   | No, we are currently in the process of preparing the EIA. We already did the scoping report which was submitted, and now the EIA will be a more detailed study which is why we are conducting the face to face meetings at this stage to gather information to include in the EIA. | N/A        |
|            |        | Before going into Block 4 and Block 9, there was a study done covering all the blocks, are you aware of it and do you have it? | This was the SEA which was done for all blocks not just block 4 and 9 and it was at a strategic level covering the different stages. What we are doing is more specific as we are conducting the environmental and social impact assessment at the exploration stage and does not cover the production stage. In | N/A  |            |

|  |                               |   | case Oil/Gas is found then another study will<br>be done specific to the production stage.<br>This ESIA will be the first one done in<br>Lebanon for the Oil and Gas sector.   |     |
|--|-------------------------------|---|--|-----|
|  |                               | Did you use the SEA for your report?  | Yes of course, the SEA is an umbrella and is being used.   | N/A |
|  |                               | How far from shore will the activities be?                                      | For Block 4 it will be 12 km.  | 4.1 |
|  |                               | When will drilling start?   | This is scheduled for December.  | 4.1 |
|  |                               | Will you have enough time to finish the study before activities start?          | We are working at a fast pace to ensure that everything is done before drilling activities begin.  |     |
|  | Ministry of<br>Social Affairs | What was done from a Social Aspect?   | Our subconsultant Infopro was responsible for data collection and meeting with KIIs and FGD. This was done as a baseline to determine the impacts and will be included in the EIA.   | 5.5 |
|  |                               | How is this linked to the SEA?  | The SEA was done for all stages and is used as an umbrella for each block. We are still talking about the exploration stage. The Project is 3 months so the impacts will be limited, even the wells have been located through geophysical studies. | N/A |
|  |                               | If gas/oil is found, this EIA covers the production stage?                      | The EIA that we are currently preparing is only for the Exploration stage, if oil/gas is found, then another EIA specific to the production stage will be done.  | N/A |
|  |                               | How deep will they go?  | Around 4000 to 5000 meters.  | 4.1 |
|  |                               | When will drilling start?   | In December for block 4.   | 4.1 |
|  | Ministry of<br>Justice        | In this short period of time, will you be able to tell if there is oil and gas? | Yes, the project duration is 3 months and because of previous studies done such as geophysical, Total was able to identify the location of the well where exploration will take place. In case oil/gas is found, then another study will be done.  | N/A |

| 19/09/2019 | Beirut | International<br>Union for the<br>Conservation<br>of Nature<br>(IUCN) | I did not read all the documents posted online yet, but I will comment on some items presented today.  With regards to the presence or absence of nutrients, we should note that the Mediterranean is semi closed. In 2010, a study was done on the Western and Eastern basin and considered all seasons. And this showed that there is change in nutrients depending on the seasons.  When you did the survey, you did it at a specific time without considering the seasons, maybe the nutrients were low because it varies depending on what the river brings in. This should have been considered. You are doing a small representation that doesn't represent the entire area. This should be clarified for people to be aware of the situation. | Thank you for your comments. In the EIA there is a large baseline chapter and that has been based on the results of the environmental baseline study, which as you pointed out, is only a snapshot and cannot represent all of the seasons. We also did extensive desktop research and we did include all the documents you mention, they are all mentioned in the reference list. In terms of nutrients, it is well known that the Mediterranean is an oligotrophic environment and we are only focusing on block 4 which is 20 km offshore so the input from the rivers of nutrients is not anticipated. | 5              |
|------------|--------|---|---|--|----------------|
|            |        |   | 3 turtles were mentioned, the Leatherback sea turtle which is rarely seen and appear once every 10 years. 1 one was found in Tripoli but the main ones were also seen and recorded and are 2 big whales 1 is a fin whale. Sperm whale, cuviers beaked whales (closer to dolphin than whale). These are present, and recorded and seen by IUCN, CNRS and even fishermen or normal people can confirm so you need to mention everything seen and not seen.  | For dolphins, we know that there are occasional visitors to the AOI, such as fin whales, sperm whales and cuviers beaked whales and this was taken into consideration when we assessed the sensitivity. The sensitivity of these whales has been assessed as medium because even though these creatures visit, they are not resident in the area. The creatures that are resident are species like the bottlenose dolphin and striped dolphin.   | 5.4.5<br>5.4.6 |

| The sea is a dynamic environment so when I send an ROV down whether 1000 2000 or 3000 meters below, it will have high level of bias - It will either be positive and attract, or contrary as it emits light and noise which might affect what is below and make them leave.  We are also limited with the angle of the ROV so we are not sure what is around it. Transects were taken but also at specific area.  I will also base my answers on other publications such as; a study we did called Mediterranean Pelagic habitat by IUCN. This is peer reviewed and can be found online and should be considered. And it explains how the Nile river, during winter, affects the exchange of nutrients. If nutrients were found to be low during the study, it doesn't mean that nutrients are in fact low in the area and | The baseline survey didn't just depend on ROV surveys, there were also grab samples of seabed taken and also photographs, it wasn't just reliant on ROV surveys.                                | 5     |
|--|---|-------|
| that nutrients are in fact low in the area and in general.  It's true it's a silty bottom but there still species that can live underneath it from all   |   |       |
| sizes and some species are on the move<br>and are not always found in specific areas.  |   |       |
| Yes, but the ROV took pictures which you used and grab samples were done for sediments.  | Yes, but you can't look at what's there without emitting light. You also can't send divers down to such depths so there are always going to be limitations with methodologies used for surveys. | 5.5.3 |

|                       | The UN, under the Barcelona Convention, have a plan for the Mediterranean Sea with regards to Dark Habitat. In this there is a protection plan for dark habitats them, even if they are deep, they each have an important function in the ecological system. Even the deep sea it's like deep forest where any change can affect it. Even if the species are not high in abundance but they are highly vulnerable  If they are rare doesn't mean they are not  Whoever worked on it should have more knowledge on the existing situation. We need to show their function even if they are not numerous. | We have referenced all the species that we anticipate being there at such depth and the ROV survey did identify some species down there, but they were in low diversity.   | 5.4 |
|-----------------------|---|--|-----|
| Diaries of the oceans | First question is for Total, you are saying that you have laws specific to the company. Will there be a third party involved or will you be doing self-monitoring?  | Yes, we have an internal control and very soon we will be audited by internal auditor to make sure that we are applying the different regulations.  In our management system, we have many internal company specific regulations and we have many certifications; many of which are referring to international standards. Our internal system is compliant with them too. We anticipated this, which is why we had someone to help with the local standards. We are also under control of the Authority.  In chapter 2 of the EIA there is Legislation which was submitted to authorities to make sure we are not missing anything, including any key regulations. We are making sure at many different level that we are not missing any regulations. | 2   |
|                       | Will there be someone on board external to Total during the Drilling?   | Yes, we will have the Lebanese authorities on board to witness our activities. We will have a dedicated person to check that we are complying.   | N/A |

|                         | Second question is related to the EIA, did you take experience from neighbouring countries knowing that nature of the sea is similar   | Yes, from Cyprus and other previous campaigns. For example, the archaeologist on board, which is not something that is usually done for EIA, but this was a lesson learnt from experience in Cyprus. | N/A |
|-------------------------|--|--|-----|
|                         | With regards to archaeological findings you said you didn't find, based on what did you make this conclusion? Did you have a specialist on board? Was it based on geological assessment? What was the baseline for this assessment?  | There was an archaeologist on board during the EBS and there were also desktop studies done.   | 5   |
|                         | Was it an underwater archaeologist? Because it's very different there are a lot of sediments so there is high possibility of having ship wrecks  | Yes, he was an expert from France and this was agreed with MOC at the beginning of the process.  | N/A |
| Ministry of Culture DGA | Thank you for the presentation. It was great and capturing.  Even though no archaeological remains were found on sea level, it doesn't mean that there are none. Our work is in the second phase. In the soundings nothing was identified but during the second stage we should confirm that it is the case. We have a workshop on the 23 and 24 of October regarding excavation and ship wreck based on Cyprus experience with UNESCO. It is Honor Frost Foundation and MOC, and we would like you to join us. We will have experts from England who will speak on archaeological and excavation techniques. During the first sounding we didn't find anything, but this doesn't mean that during the second we will also not find. For the Lebanese coast block 4 and 9 will be almost the same as thousands of years ago 3500 BC in Lebanon we had trade from Byblos and from Tyre to the West, so there is a real possibility for ship wrecks to be found and which are preserved and we have to be aware on how to drill and where, and be open to changing location in case any are found. We have a lot of information that is precious for the Lebanese and government and it will also be important for | Thank you for the invitation.  | N/A |

|                     | Total and is positive if archaeology is found. So our workshop on the 23rd and 24 of October will be at UNESCO about oil and gas and it is by invitation that is why I need focal points and those who wish to attend can contact myself.   |  |       |
|---------------------|---|--|-------|
| Lebanese<br>Army    | Why are you only doing a block 4 study when the impact is for all? Why only block 4? We are limiting this study when we should consider all the coast as it will all be affected all the coast is linked.   | The baseline survey was done for Block 4 and 9 but today we are focusing on Block 4 because it is required to conduct a specific EIA for Block 4 first. For Block 9, we will do the same EIA process.  | 5     |
|                     |   | MOE: Thank you RSK Dar and Total. Usually as MOE we do not interfere but for the ESIA and anything related to Law I will. We are only looking at Block 4 because by Law each project should have its own EIA. Each drilling is considered a project on its own. In the ESIA there will be a part on impacts, transboundary impacts and cumulative impacts from 1 block to another which is why in the AOI there was direct and indirect impacts. As the MOE, we look at the combination of currents nutrients and the AOI and where the impact might reach. This will be done when future blocks are working but Block 4 is the first one. |       |
|                     | For earthquake and geology, the faults were shown, did you consider the impact of the drilling on the faults?   | Exploration activity will be a small hole where drilling will take place. The tectonic force is above and stronger than what we are doing and this will have more impact on us than our drilling activity will on them. We are looking at the placement of faults and the location of the well has considered them.  | 4.4   |
| Puntos<br>Petroleum | Thank you for the presentation but have a small comment: I felt there is a weakness in geology. In the report you spoke about it, but in the presentation you didn't. When we talk about upper section and lower section, what do you mean? Based on what? What about the Lithology? When we talk about the choice of drilling compared to the Lithology, I | We analysed the geology as part of the drilling study and we have considered lithology. This shouldn't be part of the environmental study but the drilling study. This is based on certain criteria and geology was considered.  | 5.3.2 |

|  | want to know the impact of it, what kind of fluid, synthetic? Oil? This wasn't mentioned in both report and presentation.  |   |                    |
|--|--|---|--------------------|
|  | I don't agree that this does not affect the environment. There is another weakness. There should have also been a well sketch showing upper section and lower section, what do you mean by upper section and Lower?  | I agree with you. We should have put the schematic in the EIA. The upper section is drilled with sea water and there is no mud. The deep section is 800 m and connected to the surface so we will collect all mud and then treat it. Nothing will be discharged into the environment.   | 4.6<br>8.6.1       |
| Ministry of<br>Public Health -<br>Directorate of<br>Medical Care | I have a small question regarding the EIA and as a Doctor I think there is also a kind of weakness. You did the chemical and physical analysis of the marine environment, what about the biological/bacteria? For the baseline it is important to know to be able to compare later on in case any bacteria was found after Total drilling. | I am not sure what sort of pollutants you are talking about.  The survey measures the oil and metals as pollutants in the environment but for bacteria it is not general practice that we include in our EIA and very rarely gets included in EBS.  I don't think it has been in previous Total projects and it isn't standard for EIA.  [This correction is provided after to the meeting to ensure all published data is accurate. The Block 4 EBS did cover sampling and analysis of water and sediments for hydrocarbon-degrading and heterotrophic/aerobic bacteria. The results are included in Section 5.3.1.7 (water sample results) and Section 5.3.2.6 (sediment sample results) of the EIA]. | 5.3.1.7<br>5.3.2.6 |
|  | Don't you think in Lebanon it is important because of the pollution here and waste crisis? It will impact I won't go into details but should be tested such as heavy metals and impacts on cancer.   | We are focusing on the well of Block 4, so if there was bacteria on the seabed I don't see how it will impact people.  This is at 1700 m below surface and there is no human interaction at that level.   | 5.5.3              |
| Dar  | I didn't get the chance to read the report yet<br>but I have a question about drilling system:<br>are the impacts are detailed in the report and<br>why was this type of drill ship chosen?  | When we launched the call for Tender to select the rig, we gave them the scope of work and asked for efficiency and environmental aspects and we selected according to our standards and regulations  | 4.4<br>7           |

|                       |   | In the chapter in the EIA regarding alternatives, there is explanation and both types are included.   |            |
|-----------------------|---|---|------------|
| Diaries of the oceans | I read that there will be a jetty that will host activities and ships. Are they using existing one or will they build one? or are there future plans? Are the marine protected areas taken into account for protection?   | In terms of the jetty at the port, we will be using the existing one.  For marine areas, yes they have been taken into consideration and mentioned in the EIA.  | 4.5.1<br>5 |
|                       | What are the role of the municipalities and local authorities in the oil and gas sector? We are all experts and related to the field and I got the EIA a couple of days ago, but I am curious to know how the local community is informed. As I see it, I don't think there is enough coverage. | The role of the municipality, as you could see in the presentation from the scoping stage, involves sessions of stakeholder engagement, public consultation meetings and data collection at municipality level. So, for example, municipalities were invited to the meeting today, the public were as well through newspaper adverts.  However, in case we notice that the presence of concerned stakeholder groups is not enough today and tomorrow, then we will conduct next week additional sessions in municipalities to make sure that we are going back to those groups and inform them on results of the EIA. | N/A        |
| Sheraz<br>University  | I wanted to ask about the project and the timeframe. You spoke about 2-3 months. In another place you said 58 days to be exact. For the appraisal after the exploration after this well, what is the next step? Is the appraisal considered as part of this?                                    | Concerning block 4 EIA it is drilling one well, possibly another one and drilling an appraisal well. Block 9 will be in 2020.  After I would say it will depend on what is discovered.  For the duration, I cannot tell today the exact duration: it is about 60-70 days drilling campaign after we can't tell the exact duration.  | 1.3        |
|                       | This is the duration of exploration?  | Yes.  | 1.3        |
|                       | What about appraisal?   | It will depend on what we find. Today it's an exploration well. After, it will depend on what we find and this is not part of our scope yet.  | N/A        |

|                                     |  | When we have the result of the fist exploration we will be able to identify.   |                     |
|-------------------------------------|--|--|---------------------|
| Lebanese<br>Army                    | Is there a study related to impacts on earthquakes knowing that there are important faults on the Lebanese coast and in the sea in Lebanon?  | There is no specific study related to impacts on earthquakes. However, the following response was provided by Christophe on a similar spoken question during the meeting "Exploration activity will be a small hole where drilling will take place. The tectonic force is above and stronger than what we are doing and this will have more impact on us than our drilling activity will on them. We are looking at the placement of faults and the location of the well has considered them."   | N/A                 |
|                                     | Will today's presentation be made publicly available?  | The presentation will not be made publicly available on its own. It will however, be disclosed with the final EIA as an appendix.  | Appendix 3.18       |
|                                     | First we would like to wish you all the luck and to our country Lebanon and the Lebanese community.  | Noted with thanks  | N/A                 |
|                                     | Second of all, we wish that you will proceed with your project now and in the future in drilling in a way that will have the least negative impacts on the marine environment, people, animals and the environment as a whole.   | Noted with thanks  | 6.3                 |
| Fishermen<br>Coop Bibneen-<br>Abdeh | The environmental impact assessment is being done by taking into consideration that that the limits for fishermen is 6 miles offshore. Knowing that there is the law of the economic zone which mentions that the distance has been set to 20 miles for fishermen, was this taken into consideration for this project? | It is our understanding that commercial fishing is only permitted within 6 nm of the coast, additionally, during a national data collection meeting with the MoA-DFW, we were advised that fishermen do not travel further than 2 nm offshore. The specific distance of 20 miles has not been taken into consideration for this project, however we have noted that the exclusion zone that will be enforced during the drilling period is small (500 m in radius), the drilling period is short, and the number of supply vessel movements is only approximately 1 per day during the drilling period. Therefore impacts to fisheries at such distance from the shore, and in depths of around 1500m of water are not expected to be significant. | 5.5.3<br>6.3<br>6.4 |

|  |           | Mrs. Riwa spoke about the environmental impacts and the possibility of having gas leaks and identified it as a negative impact. She didn't mention the way of treating or minimizing this risk. | The risk of gas leaks will be minimised by following international best practice and by using the best available techniques and technology for all operations. Total will have in place management plans which address the procedures to be followed should gas leaks occur accidentally.  | 6.5.1<br>8.6.2 |
|--|-----------|---|--|----------------|
|  |           | Will there be any negative impacts on fishing grounds that might be affected by noise, light and earthquake?  | The effects of noise and light on fish species have been assessed in the EIA. The likelihood of the drilling causing an earthquake have been discussed during the consultation meeting. Overall, given the short duration of the exploration drilling activities and expected minor impacts to the fish species and populations along the Lebanese coast, it is anticipated that effects on fishing grounds will be minor too, with a limited negative impact.   | 6.3<br>6.4     |
|  |           | And in case the above occurs, what are the compensation measures and solutions?   | The location of exploration well is located outside any fishing grounds and with mitigation measures in place any potential impacts related to temporary limited access to 500 m safety zone will be further avoided and reduced. Should further negative impacts occur during drilling activities, Total has in place a grievance mechanism, detailed in the Stakeholder Management Plan developed for the exploration activities, which can be used to address any complaints from stakeholders if they feel impacted. | 8.6.4          |
|  |           | Thank you again for inviting us and for providing us with such information.   | Noted with thanks  | N/A            |
|  | Puntos    | Please try to include an 'as built' for the well.   | Noted.   | N/A            |
|  | Petroleum | Why mention questions?  | Written question not understood.   | N/A            |
|  |           | There should be more focus on the geology part (try to include possible lithologies to be found in block 4).  | The general geology of the Lebanese offshore area is included in the environmental baseline. The drilling programme will help to confirm the lithology in Block 4. The EIA will be updated to include a figure that shows the likely geology in the Block.   | 5.3.2          |

|            |       |                      | Maybe specify the type of mud (no just water-based or oil-based, but also which specific mud and which company developed it)?  | At the current stage of the procedures, the specific mud and company used to develop it is unknown. It is also noted that the EIA is submitted in support of up to 3 wells, for the first well NABM will be used for the lowerwell sections, but decisions on which type of mud to use in the 2 wells which may be drilled subsequently have not been made as yet.  |       |
|------------|-------|----------------------|--|---|-------|
| 20/09/2019 | Jbeil | Sheraz<br>University | Why aren't you doing well testing knowing it is important for data collection and for knowing the limit of the reservoir? Is it for technical or financial reasons? Or is it because during exploration you don't usually do well testing as part of the plan?   | I am Christophe Minatchy in charge of Drilling for Total. Usually for the first well we don't carry out well testing because well test needs to be designed according to specificity of the well. The purpose of well 1 is to obtain information and then if we find anything interesting then we will conduct the appraisal well which could have a well test.   | N/A   |
|            |       |                      | You said that the cuttings that will have oil based mud will be sent to Cyprus or to shore. What about the mud that contains oil/gas if found during drilling? How will this be treated noting that small quantities of gas/oil may be mixed with the mud? Is there a plan? How will it be treated? Will it be disposed of in the sea?                       | These cuttings will be recovered in skips on the drillship and then sent to a treatment facility that has different types of treatment such as burning. We do this when cuttings have been subject to oil, we always make sure to treat them. They are treated even though the cost is high. For the first well, we will go with an oil base because of the risk with the formation but later this might change to water-based and we are considering using more environmentally friendly ones. | 8.6.1 |
|            |       |                      | What about the mud?  | It is very minor. The mud is recovered, and all gas will be removed even if oil is inside, it is expected to be minor. It could pollute but we always treat in case gasses are found in the mud, so there is no issue.  | 8.6.1 |
|            |       |                      | The environmental assessment that was done and posted online was conducted during a period of one month, which is not enough. Sometimes baseline surveys takes a year. We felt that the time given was limited. Is what you did enough to know if these are the only impacts as you mentioned in the report?  If the first drilling was done and if you find | Thank you for your question. We started work on the EIA in February, so it has not just been one month of work. It has been several months of doing lots of baseline studies; we went out into the field and did a full environmental baseline study. We did grab samples to look at what is in the sediment; we did ROV surveys to see what animals are living on top of the sediment.   |       |

|                        | gas/oil, what will happen after? Will a reassessment be done knowing we have MPAs such as in Jbeil and Batroun? Some of these MPAs will change with time. Will you reassess at a later stage or only base it on the findings of this ESIA which was done very quickly?  What about the MPAs?   | As you say, in an ideal world, you would have surveys from every season to feed into this report, but this is just a commitment for one well and then possibly two more wells. You cannot do everything.  If TOTAL are successful in finding reserves that are commercially viable, then another study for the production phase will be done and all MPAs will be accounted for.  All proposed MPAs are included in our  | 5.4     |
|------------------------|--|--|---------|
|                        |  | studies and will be taken into account.  |         |
| Honor Frost Foundation | Thank you for the presentation. My main question is what kind of remote sensing technique have you done to determine that there are no archaeological sites underwater in the zones?  Doing the survey for oil and gas is very different from doing archaeological survey. What we need to deploy as archaeologist is a series of tools such as sonars and then followed by ROV. Has this been done? I'm sorry maybe you have done this, but it is not clear in the report.  What I know from personal contact is that there was the archaeologist who joined, and I think only ROV was used. If yes, this is not enough to determine that there is no archaeology underwater. What I would like to see or suggest is the need to collaborate and maybe revisit the question of presence of cultural material submerged. | I was on board as well. We did the ROV survey and we did some desktop research before going on site. The archaeological expert worked closely with MOC to identify the potential places to find them and we had some internal results from seismic campaigns done before. We didn't have multibeam survey, but we had the bathymetry. We used what we had in addition to available data, keeping in mind that the environmental survey is not an archaeological survey, but we wanted to exclude the chances of drilling in an archaeological area. In Cyprus campaigns, during our environmental baseline survey, we found by chance some small archaeological findings which is why we decided to have an archaeologist on board for this project because as environmentalist we are not able to identify the presence of archaeological elements ourselves. Mourad also worked closely with the ROV specialist and checked soil and sediment samples that we collected to make sure no traces as we were desperately looking for something. Mourad also reported this to MOC. Unfortunately, our survey was limited in time, but we tried to collect as much as we could. | 5.5 6.4 |

|                        | Thank you very much. The problem is not with the people but with the technology used. I am a maritime ecologist as well as working with the Honor Frost foundation now. I can see that the archaeological desktop study assessment needs more work as a lot of underwater sites are not reported here. I am sure that you are doing the best you can, but my recommendation and friendly advice is to be able to do more to make sure that no submerged archaeology is found. Block 4 is facing several coastal archaeological sites which we have reviewed together thank you very much for that, and that are major on the Lebanese coast and surely knowing the history of Lebanon there must be shipwrecks.  So, our hope as maritime experts is to collaborate with you to know more about deep sea archaeology. It's more of a wish that we get more deep-sea survey to know for sure the findings. | Please write this down to make sure you get an answer and your suggestions, and they will be taken into consideration.   | N/A |
|------------------------|---|--|-----|
| Municipality of Byblos | The EIA was done for the exploration phase only not production. Is it because of the lack of money that you didn't do a full EIA study including the archaeology? Or what is the issue? If we reach step 2, why not conduct the full study at the same time and include production?   | It is only limited to the exploration stage because you can't guarantee before drilling that you will find enough reserve. You never plan a full development before getting data from an exploration well, it is standard process all around the world. It would only be a waste of resources.  If we find a good quantity, we will do an EIA for each stage. For each block, there will be an EIA study and as per the decree, each phase of a project needs to have a study. We will also include cumulative impacts once future blocks are working, in addition to transboundary impacts; for example, in case we will be transferring the hazardous waste abroad or in case of accidental impacts. The modelling will show how this will go. |     |

|                |  | about funding for Exploration? Is the ment paying?  | There is a possibility for gas to be present from each well but the chances do not exceed 25% at this point which is why we don't do the entire study at the beginning.  Total is.   | N/A |
|----------------|--|---|--|-----|
| City U         | be test  | s the depth of the exploration wells to ed?  quires high risk technology as red to a well that is 320 meters down?  | 1520 m  Block 4, the well is located 1500 m under water then we will drill 2500 m below the soil.  | 1.3 |
|                | Leband<br>have to<br>building                                  | on is on a fault. As civil engineers we o work harder on fortifying our gs at the moment in terms of safety as waiting for the big one and it's a   | For the exploration well, the energy combined is small compared to the tectonic forces. It is the tectonic forces themselves that might cause a problem for the well and the drilling.   | 5.3 |
|                | obvious<br>be mod<br>will ind<br>earthqu<br>drilling<br>unstab | we are messing with our underground, sly we will either now or down the road difying underground pressure, and this uce or create the propensity of having uakes. In Holland they finally stopped because their ground became le for example. Did you take this into eration? The study did not mention it. | When we design and locate the well, we will look at the underground seismic and the faults and we will be away from them.  Based on data from the drilling of exploration we will conduct several studies such as geomechanical studies and we will review our strategy for future steps. We will have geomechancial experts on board and this will be considered in the placement of the well, number of wells, and the architecture to be decided if production will take place. |     |
|                | has to<br>stage.<br>and the                                    | best that regarding the seismic study it be part of the next EIA for production It has to be clear to the general public bey should be aware of the data. I like to see it in the next EIA.   | Noted.   | N/A |
| Leban<br>Unive | ersity be ava prepare  | ding job opportunities, when will this ilable? Are there any contracts being ed or that have been signed? How will ddressed?  | Yes, employment is one of the main things requested when oil and gas enters a new country. As you could see in the presentation of Aram, what we are doing now is just a first phase exploration period so for each block, one well lasting two months each. The opportunities are very limited because at this  | 4.7 |

|   | stage the chances of finding commercial quantities of gas is only 25% maximum. So, we cannot start to employ people and then two months after say "we didn't find anything" and close. So, it's very normal for the oil and gas in the first stage that opportunities are limited but this does not mean there are none. We have a number of Lebanese that have been employed already and we have in our contracts a requirement for employment of Lebanese as part of the local content is 80%. That's it for the moment, but the drilling rig will come with skilled personnel. If we find gas, the opportunity will be bigger and any opportunity for employment will be publicly announced. |              |
|---|---|--------------|
| They have to be trained.  | Yes, in many of the Lebanese universities there is already a petroleum engineering department so you have to get prepared and hopefully Lebanon will become an oil and gas country.   | N/A          |
| In case there is production of oil, what is the worst-case scenario when it comes to social impacts? Will there be demolition? And what is the solution? What about the pipe connections, did you study the impacts of these? What are the solutions? | These questions are related to the production stage, at the moment we are only in the exploration phase.  | 6.4<br>8.6.4 |
| What about the mitigation measures to be taken into consideration for the negative impacts?   | This was presented. All measures are further elaborated in the EIA that can be found on the link shown. We can provide you with the link again at the end of the PC session.  For each impact we have a mitigation measure, and this was discussed in the presentation. The link to the EIA can be found in the invitation and public announcement.  We understand the expectation of the country, but we must keep in mind the scope of this EIA today which is one exploration offshore for two months. It is a short project and if we discover hydrocarbons, it will be   | 6            |

|       |   | another project. We understand the country would like us to create many opportunities, some are open and when we can employ Lebanese people we will. Aram was given as an example for Lebanese HSE engineer and I have seen Lebanese everywhere in the world and I know competent Lebanese exist. We understand for the archaeological studies you would like a full study, but we need to focus on our project. We also understand the major social impact concerns, but we also need to focus on our project, and it is not the case of this small-scale project. We want discovery, but today we are still at the exploration stage.  |                |
|-------|---|--|----------------|
| ELARD | I had the pleasure to lead the SEA which was done, and I invite the lady asking about the social impacts to read it as it covers all the phases on environmental and social and considered different scenarios. For now, this stage is only the exploration.  We started reading the EIA and it is very detailed and it does include scenarios for major accidents but was not presented here. For explorations the impacts are relatively limited. The biggest concern is related to major accidents. What I would like to hear today and hopefully see in the final version of the EIA is more on the preventive measures, safety systems of the drillship. We heard on the news that drillship has been selected, we would like to know whether the drillship has a safety case what are the safety systems in place because this is a risk we would like to understand and have confidence that these risks have been minimized. Is the POP is subject to 3rd party verification for the integrity of the POP? What other safety components are on board? For Total, based on your procedures what is the responsibility of Total versus the responsibility of the drillship contractor in managing safety risks? | I will give a general answer, when we are considering major spill scenario, we are considering the blowout scenario and we are considering the major oil spill scenario. This week we have experts from Paris coming for the assistance on the contingency plan with an external 3rd party to identify the main major scenarios and their consequence. We are considering the presence of gas and/or condensate in the reservoir we are not working on any product. We know that Lebanese have in mind the pollution of 2006 and I saw a few days ago a picture of Byblos port and it was terrible. Lindsay can speak about it better than us. And Christophe will speak about the technological risk assessment and the way we are managing it starting from hazard identification to major risk register and identifying major risk scenarios and mitigation measures to reduce to acceptable level. Zero risk doesn't exist, but we are professionals here ready to manage the risks.  There is an HSE case that will be shared with the authorities. All safety systems are certified by a 3rd party or by the original equipment manufacturer. Then we have our | 8.6.5<br>8.6.6 |

| To what extent does Total interfere on the management of those risks, and it would be good to hear the scenarios that have been studied, what is the worst-case scenario? What areas in Lebanon could be affected? And how would we make sure communities are not affected and condensate does not reach the shore? If you could explain to people for this well the significant of condensate compared to oil, is it less significant in terms of impact? | own internal audit where we conduct indicative audits with corrective actions that will be closed before the drilling starts. We conduct 3rd party inspection going on now and on board we will have a chain of command responsible for HSE on site which is responding to someone on shore (superintendent) from Total, and ultimately reporting to myself. All changes of the program will need to be validated through the chain of command. We have a lot of barriers in place and all of this are illustrated in the technological risk assessment that concentrates on major risks where we are doing a full hazard identification exercise of course with mitigation measures. The technological risk assessment concentrates on the major risks.  |                |
|--|---|----------------|
| Will some of these measures be in the EIA?   | Yes.  | 8              |
| Many accidents are from human mistakes, how will you mitigate this in terms of people on board?  | This is contractual. We asked for certain level of expertise and certifications. For all the critical positions on the rig we screen their CVs.   | N/A            |
| Many accidents are from human mistakes, how will you mitigate this in terms of people on board?  | All measures are preventative measures to avoid accidents from happening. If there is a problem with the well there is also a blowout contingency plan. If oil is released to the environment, then Total will implement an oil spill contingency plan which deals with the management of the oil released into the environment. The drilling is looking for gas, maybe there is condensate which is a very light oil closer to gasoline. It is a different kind of product from what was spilled in 2006 during bombing which was heavy oil, thick, black, sticky and consistent. Here we are speaking of a light refined product and if spilled in the sea, will evaporate quickly and the condensate very quickly in 24-48 hours. There may be residues. Even oil can be dispersed naturally by the waves. Those two products are light and non-consistent and | 8.6.5<br>8.6.6 |

|  | can evaporate maybe not completely if sea is calm. There are some techniques to remove residues. Total can use booms to recover residual oil and the oil contingency plan will also include monitoring of the oil.  The likelihood of having a significant impact to shore is limited considering the nature of the project. Total Liban is not drilling crude oil.  (Video was shown showing the different types of oil and how they react in the marine environment).            |       |
|--|--|-------|
| My next question is related to the discharge of the water-based cuttings. Is it for the first section without the riser? During the SEA consultation experts were concerned with the water-based cuttings because of the impacts on fish. Was this assessed in the EIA? How far and how long will plume material disperse in the water? How will these fine particles affect the surrounding?  | For well 1, we are only discharging from the first and second section and it will be discharged into the seabed. We did modelling and the risk appeared to be very localised and associated with changes in the sediment depth. The muds will affect a large area and plumes will go far but within 5 days they will be gone, and the risk will be reduced to nothing. These are only causing turbidity, there are no chemical risks and the impacts on the fish are minor.        | 4.6.2 |
| I think this is the most detailed study done for Lebanon underwater or on land for 1 well. I understand the concern that we are afraid and worried about oil spill, but this is a lot of work done for 1 drilling well. For the plume, it could be similar to what happens after the 1st rain in the fall which is more important than this.  I hear a lot of misused terms or misinterpreted one like MPAs or things related to marine mammals. We are talking about 12 nautical miles offshore. If anything happens there it will go to the North not to Lebanon unless we have exceptional weather. Cyprus and Turkey and Syria should be worried. I understand the archaeological part, if we find good quantity of gas/oil then I would like to be part of it and see the ROVS for a scientific purpose but for | Thank you for your comment. We received this kind of comment as well from some of the authorities.  It is not a Mediterranean study, it is only for our AOI. You are right it is the first one in Lebanon and it is very expensive (studies mobilising rigs etc.). For us this is our basic rule and general specification and anywhere in the world we are working we are working under the same philosophy. We are simply doing what our environmental culture imposes us to do. | N/A   |

|                 | now we are talking too much about something that is not so important. This won't affect the MPAs now and zooplanktons are everywhere.   |   |                 |
|-----------------|---|---|-----------------|
| City University | The aspect I want to raise is regarding security, we all remember when Iraq went into Kuwait what happened. Recently Saudi Arabia sent out cruise missiles. So, I expect bigger problems. This well will be closed; how vulnerable will it be if someone decides to attack and target the opening of the well?            | In the way we are organised, the One Total, in Lebanon our marketing and supply branch is in charge of some topics at national level, and security is one of them. I am the focal point here for the drilling campaign. It is a concern, and some points we can't talk about, but we have experts from Paris, and we have a strong contact. Security on block 4 is not as major as block 9 which will be different. When we did the survey, we did a security assessment and we obtained the right information to identify the risks and set an action plan in collaboration with the Lebanese authority. It is a concern that we are managing. | 4.5.6           |
|                 | My question is more technical. You are doing something that is making us all vulnerable once you leave, and if you decide to seal it and leave what happens of someone decides to throw a bomb for terrorism, is it more risky because of drilling and sealing? What is the difference in risks? What is the bigger risk? | At the end of the well drilling, we do plug and abandonment which is to restore all the barriers/natural ones that were present before we drilled. After we isolate from the surface seabed, we are putting a plug tested and verified to avoid leaks. We have to keep in mind that this is in deep water (1500 m below seabed) and in this particular case the risk is low. If it was a land well then, the risk would have been higher because you will have direct access to the well but offshore the risk is minimal.  | 4.4.7<br>4.4.10 |

|  | Honor Frost<br>Foundation | You mentioned there was a waste management facility for drillings, you said you will use water-based mud then the next one maybe oil based is that understood correctly?                      | For this well, the first section cannot be drilled connected to the drillship so everything will be drilled is discharged at sea. The deep section will be drilled with seawater. At the end, we will drill with waterbased mud only salted brine will be used to avoid wellborn instability. The minimum impact will be localised then the tube will be placed connected to the ship and then we will drill with oil-based mud and all waste will be collected and treated. | 4.4<br>8.6.1 |
|--|---------------------------|---|--|--------------|
|  |                           | You said something about outsourcing to Cyprus. If you are based at the port of Beirut, recyclable and drilling waste will result among others, what is the plan for this facility in Beirut? | Today there is no defined plan for such a facility in Lebanon in general. Should we discover that this is needed then it will make sense for Lebanon to create this business. From what I have seen elsewhere in the world, everything is done locally.  | 8.6.1        |
|  |                           | Everyone was saying the permit comes towards the end of the year, how soon after will drilling start?   | When the permit comes the drilling will start immediately.   | 1.3          |
|  | Lebanese<br>University    | How will the negative impacts be handled in the water during works?   | There will be mitigation measures in place that include the use of best available techniques and technology and ensuring activities are conducted in such a way that minimises the effect on the environment. These techniques will ensure that discharges to water comply with MARPOL and other applicable regulations and guidance.  | 6            |
|  |                           | What are the management plans and mitigation measures that will be taken? Can you give examples?  | Management plans are currently being developed as discussed in chapter 8 of the EIA report. The mitigation measures are included in conjunction with the impacts in the impacts chapter (6) of the EIA report and all commitments (mitigations) are included in the commitments register (Appendix 8.1).   | 8            |
|  |                           | How will drilling in December start knowing it is the rainy and stormy season? What are the barriers? Will drilling not be affected and increase negative impacts?                            | The MODU will be very stable in the water, but in extreme circumstances drilling will be suspended temporarily. The MODU chosen will have procedures in place for working in poor weather conditions, and operations would be suspended before weather conditions became unsafe for working.   | 6            |

| What are the negative impacts on food resources and their effect on fishermen and their livelihood?   | There are no anticipated effects on food sources, fishermen and their livelihoods. Impacts to fish are considered minor and therefore the associated impact on fishing is also minor. Limited minor effects are anticipated in relation to the slight increase in vessel movements due to the short duration of the exploration drilling activities.  | 6.4 |
|---|---|-----|
| Will turbidity during the works have a negative and direct impact on tourism?   | Turbidity is not expected to have a negative and direct impact on tourism as the well site is approximately 20 km offshore and turbidity will only be increased in the immediate vicinity of the well site (within 2 km).   | 6.4 |
| Will the impacts on the findings be so big that it might destroy archaeological findings? What about the collision of pipes with the railway?             | This ESIA covers only the exploration drilling, the site of which is located around 20km offshore for the first well, and a minimum of 12km for any subsequent well in the exploration/appraisal phase. The operations will also have a small footprint inside an already industrialised port. A chance finds procedure will be in place to address unknown archaeological findings, but the location of the first well was chosen to avoid any negative impacts, such as destruction of archaeology.  Apart from the logistics base located in Beirut Port, this phase of work will not create any infrastructure onshore. If the drilling is successful and Block 4 is to be developed for commercial extraction of gas a further EIA would be produced which would address the effects of additional onshore infrastructure such as onshore pipes. | 6.4 |
| What do you mean by social conditions? Is there a possibility to destroy residential buildings for example? What about any land pipelines in case needed? | Social conditions refers to safety and security (potential impact on safety and security, including road safety at the Port of Beirut). There is no threat to residential buildings and no requirement for land pipelines from the proposed exploration activities. If commercial exploitation of the Block 4 reservoir is considered viable as a result of the exploration and appraisal drilling, a separate ESIA will be conducted to assess the   | 6.4 |

|            |               |                   | How will employment take place within Total Company? What about training? Are there any job opportunities that will be available soon? When will the contracts be made available for opportunities at the logistics base? | impacts from that phase- which would probably require the construction of onshore infrastructure, including land pipelines.  Total has a strategy in place for employment with its company. Training will be implemented as needed. Job opportunities at the logistics base will be available soon, however as noted deign the meeting opportunities for such employment during the exploration phase are limited, more will be available if the project goes into a production phase. | 4.7 |
|------------|---------------|-------------------|---|--|-----|
| EIA Commen | s Received On | line from Stakeho | olders  |  |     |
| N/A        | N/A           | NGO               | It's interesting to know about oil & gas.   | Noted.   | N/A |
|            |               | Private sector    | Need to discover Oil & Gas field.   | Noted.   | N/A |
|            |               | Private sector    | Helpful event.  | Noted.   | N/A |





[This page has intentionally been left blank.]

## **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 3.13 Letters of Invitation Example: Stakeholder Engagement and Proof of Postage

80754









[This page has intentionally been left blank.]



# rsk dar

بيروت في ٧ ايار ٢٠١٩ L19036-0100D/1315

مصلحة الأرصاد الجوية - المديرية العامة للطيران المدني انتباء المهندس مارك وهيبة المحترم بيروت - لبذان

تحية طيبة وبعد،

#### الموضوع: دعوة لجلسة تشاورية مع أصحاب المصلحة فيما يتعلق بنشاطات Total E&P Liban لأعمال الحفر الاستكشافية.

في ٢٩ كانون الثاني ٢٠١٨، وقعت الجمهورية اللبنائية مثلةً بوزير الطاقة والمياه اتفاقيتين للتتقيب والإنتاج مع إتحاد شركات مولف من TOTAL E&P Liban SAL و Eni Lebanon BV. وعليه ستتوم TOTAL E&P Liban SAL وعليه ستتوم Liban بنشاطات أعمال الحفر الاستكشافيّة في بلوك ٤ وذلك في أو اخر عام ٢٠١٩ وبلوك ٩ في عام ٢٠٢٠.

بناة على ما ذكر أعلاه، سيتم إجراء تقييم الأثر البيني والاجتماعي(ESIA) لأعمال الحفر المذكورة وفقًا لأحكام المرسوم ٨٦٣٣ لعام ٢٠١٢ "أساسيات تقييم الأثر البيني" (EIA) والقوانين المعمول بها وكذلك مواصفات TOTAL والمعايير الدولية.

تدعو شركة RSK Environment Ltd وشركة دار الهندسة للتصميم والاستضارات الفنية (شاعر ومشاركوه) ش.م.ل. المتعاقدتين مع شركة TOTAL E&P Liban SAL بجلسات تشاورية مع أصحاب المصلحة كجزء لا يتجزأ من تقييم الأثر البيني والاجتماعي لتشاطات أعمال الدفر الاستكشافية. تهدف هذه الاجتماعات إلى إعلام أصحاب المصلحة عن المشروع، إضافة إلى عملية تقييم الأثر البيني والاجتماعي. كما سيحضر ممثلون عن TOTAL E&P Liban للإستماع إلى التعليقات والاقتراحات والإجابة عن الأسئلة. سيعقد هذا الاجتماع بتاريخ 10 أيار ٢٠١٩ من الساعة التاسعة والنصف صباحاً حتى الساعة الثانية عشر ظهراً في فندق راديمون بلو، فردان - بيروت.

يشرفنا حضوركم هذا الاجتماع أو ممثل عنكم ولمزيد من الأستفسار، يمكنكم التواصل معنا عبر الرقم التالي: ٧٩٠٠٠٢/٠١ وصلة:

وتفضلوا بقبول فائق الاحترام،

عن/ دار الهندسة للتصميم والاستشارات الفنية

(شاعر ومشاركوه) ش.م.ل.

مروان قبرصلي

نسخة: المهندس محمد شهاب الدين المحترم



#### **Delivered Per Waybill**

| The state of the s |  | elivereu r ei wayt   | /III                                    |
|--|--|--|---|
| Waybill No<br>Sender<br>Entry Date   | PX10003291882<br>Dar Al Handasah - Nazih Taleb<br>10/05/2019 | Speed<br>Waybill Type<br>Expiry Date                                   | NEXT DAY<br>STATEMENT AND<br>21/05/2019 |
| Identifier ID<br>C326000000100   | Postoffice<br>AEROPORT (BOX)                                 | Delivery Info<br>POBOX<br>11/05/2019 8:00:30 AM<br>DEPOSIT TO POBOX/HV | Signature<br>PO                         |
| C326000000074  | AEROPORT (BOX)   | POBOX<br>11/05/2019 8:00:33 AM<br>DEPOSIT TO POBOX/HV                  | PO                                      |
| C326000000113  | PDJ BEIRUT (BOX)   | POBOX<br>13/05/2019 7:50:06 AM<br>HIMSELF                              | HEISSEIN SALEH                          |
| C32600000102   | FURN EL CHUBBAK (STANDARD)                                   | Ibrahim Khalil Hatab<br>13/05/2019 9:01:23 AM<br>WORKER                | ELIAS AOUN                              |
| C326000000072  | FURN EL CHUBBAK (STANDARD)                                   | Ibrahim Khalil Hatab<br>13/05/2019 9:19:49 AM<br>WORKER                | MHAMAD KESHLI                           |
| C32600000110   | FURN EL CHUBBAK (STANDARD)                                   | Ibrahim Khalil Hatab<br>13/05/2019 9:28:55 AM<br>WORKER                | DIANA FAKIH                             |
| C32600000105   | MAZRAA (STANDARD)  | Yasser Youssef Omari<br>20/05/2019 10:35:19 AM<br>WORKER               | RABAB MAJZOUB                           |
| C326000000112  | FURN EL CHUBBAK (STANDARD)                                   | Elias Bou Abdo<br>13/05/2019 1:08:36 PM<br>WORKER                      | GHADA HAMOUD                            |
| C326000000120  | TAHWITAT EL GHADIR<br>(STANDARD)                             | ROUTE 5<br>14/05/2019 11:05:22 AM<br>WORKER                            | PATY HDAD                               |
| C32600000109   | TAHWITAT EL GHADIR<br>(STANDARD)                             | ROUTE 4<br>13/05/2019 10:37:03 AM<br>WORKER                            | FARAH KHAZEM                            |
| C326000000118  | FURN EL CHUBBAK (STANDARD)                                   | Mohamad Hamzeh<br>13/05/2019 1:05:52 PM<br>WORKER                      | HAMZI AMAR                              |
| C32600000119   | TAHWITAT EL GHADIR<br>(STANDARD)                             | ROUTE 1<br>14/05/2019 11:32:13 AM<br>WORKER                            | SOZE SLBA                               |

| Waybill No<br>Sender<br>Entry Date | PX10003291882<br>Dar Al Handasah - Nazih Taleb<br>10/05/2019 | Speed<br>Waybill Type<br>Expiry Date                                     | NEXT DAY<br>STATEMENT AND<br>21/05/2019 |
|------------------------------------|--|--|---|
| Identifier ID<br>C326000000101     | Postoffice<br>RIAD EL SOLH (STANDARD)                        | Delivery Info<br>Mohamad Aref Fakhro<br>13/05/2019 10:42:52 AM<br>WORKER | Signature<br>KLARA MELHEM               |
| C326000000103                      | RIAD EL SOLH (STANDARD)                                      | Mohamad Aref Fakhro<br>13/05/2019 10:42:52 AM<br>WORKER                  | KLARA MELHEM                            |
| C326000000104                      | RIAD EL SOLH (STANDARD)                                      | Mohamad Aref Fakhro<br>13/05/2019 11:44:24 AM<br>WORKER                  | DANI BAZ                                |
| C326000000111                      | RIAD EL SOLH (STANDARD)                                      | Mohamad Aref Fakhro<br>13/05/2019 11:57:05 AM<br>WORKER                  | AMAL HAFZA                              |
| C326000000073                      | RIAD EL SOLH (STANDARD)                                      | Mohamad Aref Fakhro<br>14/05/2019 10:45:17 AM<br>WORKER                  | AHMAD SROUR                             |
| C326000000117                      | RIAD EL SOLH (STANDARD)                                      | Mohamad Aref Fakhro<br>15/05/2019 9:33:34 AM<br>WORKER                   | AHMAD ABO MERHE                         |
| C326000000116                      | RIAD EL SOLH (STANDARD)                                      | Mohamad Aref Fakhro<br>15/05/2019 10:35:08 AM<br>WORKER                  | AMAL ABO RIHAN                          |
| C326000000114                      | RIAD EL SOLH (STANDARD)                                      | Bassel Abbas Issa<br>13/05/2019 10:09:30 AM<br>WORKER                    | ALI ASSAF                               |
| C326000000122                      | HAMRA (STANDARD)   | Ahmad Atwi<br>13/05/2019 11:28:57 AM<br>WORKER                           | ALI KOUBAYSE                            |
| C326000000123                      | RIAD EL SOLH (STANDARD)                                      | Ahmad Al Nakib<br>14/05/2019 1:13:19 PM<br>WORKER                        | JOSEPH KHALEL                           |
| C326000000115                      | TAHWITAT EL GHADIR<br>(STANDARD)                             | Akram Assi<br>13/05/2019 3:08:15 PM<br>WORKER                            | TEREZIA NAJM                            |
| C328000000107                      | TAHWITAT EL GHADIR<br>(STANDARD)                             | Akram Assi<br>13/05/2019 3:08:16 PM<br>WORKER                            | TEREZIA NAJM                            |

| Waybill No<br>Sender<br>Entry Date | PX10003291882<br>Dar A1 Handasah - Nazih Taleb<br>10/05/2019 | Speed<br>Waybill Type<br>Expiry Date                           | NEXT DAY<br>STATEMENT AND<br>21/05/2019 |
|------------------------------------|--|--|---|
| Identifier ID<br>C326000000106     | Postoffice<br>TAHWITAT EL GHADIR<br>(STANDARD)               | Delivery Info<br>Akram Assi<br>13/05/2019 3:08:17 PM<br>WORKER | Signature<br>TEREZIA NAJM               |
| C326000000108                      | HAMRA (STANDARD)   | Youssef Shamas<br>13/05/2019 10:24:50 AM<br>WORKER             | NAWAL 7ERSHE                            |
| C326000000121                      | FURN EL CHUBBAK (STANDARD)                                   | Ali Adnan Haidar<br>13/05/2019 1:15:06 PM<br>WORKER            | JOY HSJ                                 |

#### Total Delivery for Waybill

|                               | PX10003291882 27<br>Total |
|-------------------------------|---------------------------|
| AEROPORT (BOX)                | 2                         |
| FURN EL CHUBBAK (STANDARD)    | 6                         |
| HAMRA (STANDARD)              | 2                         |
| MAZRAA (STANDARD)             | 1                         |
| PDJ BEIRUT (BOX)              | 1                         |
| RIAD EL SOLH (STANDARD)       | 9                         |
| TAHWITAT EL GHADIR (STANDARD) | 6                         |
| Total                         | 27                        |





## **Delivered Per Waybill**

| 34 - 14                               |  | Delivered i el ways   | /III                                    |
|---------------------------------------|--|---|---|
| ₩aybill No<br>Sender<br>Entry Date    | PX10003291878<br>Dar Al Handasah - Nazih Taleb<br>09/05/2019 | Speed<br>Waybill Type<br>Expiry Date  | NEXT DAY<br>STATEMENT AND<br>21/05/2019 |
| <b>Identifier ID</b><br>C326000000010 | Postoffice<br>BATROUN (STANDARD)                             | <b>Delivery Info</b><br>Maldinka Maalouf<br>15/05/2019 11:25:48 AM<br>HIMSELF | <b>Signature</b><br>BALADIYE            |
| C326000000013                         | BATROUN (STANDARD)   | Maldinka Maalouf<br>20/05/2019 8:44:16 AM<br>HIMSELF                          | KK                                      |
| C326000000069                         | SAIDA (STANDARD)   | ANIS HAMDAN<br>13/05/2019 9:50:31 AM<br>WORKER                                | FADIBOTROSS                             |
| C326000000034                         | TYRE (STANDARD)  | Mahdi Ali El Dor<br>13/05/2019 10:47:34 AM<br>HIMSELF                         | ABSS DHAYNI                             |
| C326000000061                         | TAHWITAT EL GHADIR<br>(STANDARD)                             | ROUTE 1<br>10/05/2019 12:42:33 PM<br>WORKER                                   | YOUSF 3RABE                             |
| C326000000037                         | JOUNIEH (STANDARD)   | SLC 2<br>10/05/2019 11:35:33 AM<br>WORKER                                     | MARCELLE ABO KHALIL                     |
| C326000000038                         | JOUNIEH (STANDARD)   | ROUTE 6<br>10/05/2019 11:27:57 AM<br>WORKER                                   | GWORGES SALAME                          |
| C326000000057                         | JOUNIEH (STANDARD)   | ROUTE 1<br>13/05/2019 10:56:46 AM<br>WORKER                                   | ADMA CHAHWAN                            |
| C326000000056                         | JOUNIEH (STANDARD)   | ROUTE 3<br>10/05/2019 1:45:33 PM<br>WORKER                                    | JIZET AZAR                              |
| C326000000052                         | JOUNIEH (STANDARD)   | Ammar Ibrahim<br>10/05/2019 1:09:02 PM<br>WORKER                              | SAADMATAR                               |
| C326000000065                         | ANTELIAS (NON DOCUMENT)                                      | Elie Eid Chamlaty<br>10/05/2019 9:45:42 AM<br>WORKER                          | JOUMANA WAKIM                           |
| C326000000042                         | JDEIDET EL METN (STANDARD)                                   | Hussein Khalil Awad<br>13/05/2019 4:16:51 PM<br>HIMSELF                       | PALMERROR                               |

| Waybill No<br>Sender<br>Entry Date     | PX10003291878<br>Dar Al Handasah - Nazih Taleb<br>09/05/2019 | Speed<br>Waybill Type<br>Expiry Date                                       | NEXT DAY<br>STATEMENT AND<br>21/05/2019 |
|--|--|--|---|
| <b>Identifier ID</b><br>C3260000000063 | Postoffice<br>JDEIDET EL METN (STANDARD)                     | <b>Delivery Info</b><br>Ibrahim Hassan<br>14/05/2019 11:40:45 AM<br>WORKER | Signature<br>ZEYAD ABOU JAWDI           |
| C326000000064                          | TAHWITAT EL GHADIR<br>(STANDARD)                             | Ali El Dor<br>10/05/2019 2:03:09 PM<br>WORKER                              | AHMD ALAME                              |
| C326000000012                          | HALBA (STANDARD)   | Omar Abbas<br>13/05/2019 10:53:54 AM<br>WORKER                             | SAMIRA TANNUS                           |
| C326000000051                          | ANTELIAS (NON DOCUMENT)                                      | Ali Nadim Jaber<br>10/05/2019 11:55:32 AM<br>HIMSELF                       | REMIN ACHKAR                            |
| C326000000071                          | TAHVITAT EL GHADIR<br>(STANDARD)                             | Akram Assi<br>15/05/2019 3:13:09 PM<br>WORKER                              | BUTHEINA HALABI                         |
| C326000000059                          | CHEHIM (STANDARD)  | ROUTE 2<br>13/05/2019 12:09:08 PM<br>WORKER                                | RADWAN KAZZI                            |
| C3260000000066                         | CHEHIM (STANDARD)  | ROUTE 3<br>10/05/2019 10:30:23 AM<br>WORKER                                | JIHAD KHOURY                            |
| C3260000000040                         | CHEHIM (STANDARD)  | ROUTE 3<br>10/05/2019 10:53:02 AM<br>WORKER                                | SANAA AZI                               |
| C326000000046                          | JBEIL (STANDARD)   | Mohamad Bilal Masri<br>13/05/2019 11:17:14 AM<br>WORKER                    | SAHAR ZGHIB                             |
| C3260000000060                         | JBEIL (STANDARD)   | Mohamad Bilal Masri<br>13/05/2019 11:57:29 AM<br>WORKER                    | MARI ROSE AZZI                          |
| C3260000000025                         | SAIDA (STANDARD)   | Saad el deen koros<br>10/05/2019 11:21:53 AM<br>WORKER                     | HASNAA                                  |
| C326000000050                          | CHOUEIFAT (STANDARD)   | ROUTE 5<br>10/05/2019 10:18:10 AM<br>HIMSELF                               | GSEN                                    |

| Waybill No<br>Sender<br>Entry Date    | PX10003291878<br>Dar Al Handasah - Nazih Taleb<br>09/05/2019 | Speed<br>Waybill Type<br>Expiry Date                                | NEXT DAY<br>STATEMENT AND<br>21/05/2019 |
|---------------------------------------|--|---|---|
| <b>Identifier ID</b><br>C326000000044 | Postoffice<br>CHOUEIFAT (STANDARD)                           | <b>Delivery Info</b><br>ROUTE 5<br>13/05/2019 11:25:53 AM<br>WORKER | Signature<br>SOLA                       |
| C326000000054                         | JBEIL (STANDARD)   | SLC 1<br>13/05/2019 10:24:39 AM<br>WORKER                           | OLIVIA ZAYLAA                           |
| C326000000045                         | JBEIL (STANDARD)   | ROUTE 8<br>10/05/2019 3:16:33 PM<br>WORKER                          | FADIDARGHAM                             |
| C326000000058                         | JBEIL (STANDARD)   | ROUTE 8<br>13/05/2019 10:01:46 AM<br>WORKER                         | CHARBEL MATAR                           |
| C3260000000043                        | JBEIL (STANDARD)   | ROUTE 8<br>13/05/2019 11:52:42 AM<br>WORKER                         | SAMIR OUEIS                             |
| C326000000049                         | JBEIL (STANDARD)   | ROUTE 5<br>14/05/2019 9:52:23 AM<br>WORKER                          | RANA GEAARA                             |
| C326000000053                         | JBEIL (STANDARD)   | ROUTE 3<br>10/05/2019 9:51:33 AM<br>WORKER                          | ELIANE KAEAM                            |
| C326000000062                         | JBEIL (STANDARD)   | ROUTE 3<br>10/05/2019 11:51:02 AM<br>HIMSELF                        | JOELLE MOUFAREG                         |
| C326000000018                         | HALBA (STANDARD)   | Ahmad M. Ibrahim<br>10/05/2019 9:52:49 AM<br>HIMSELF                | LHALD ASMAR                             |
| C3260000000007                        | HALBA (STANDARD)   | Ahmad M. Ibrahim<br>10/05/2019 11:23:40 AM<br>HIMSELF               | KFAHKASAR                               |
| C326000000019                         | HALBA (STANDARD)   | Ahmad M. Ibrahim<br>13/05/2019 1:00:12 PM<br>WORKER                 | MOHMD SALMA                             |
| C3260000000004                        | HALBA (STANDARD)   | Ahmad M. Ibrahim<br>15/05/2019 1:50:18 PM<br>WORKER                 | MKHTAR KECHFA                           |

| Waybill No<br>Sender<br>Entry Date    | PX10003291878<br>Dar Al Handasah - Nazih Taleb<br>09/05/2019 | Speed<br>₩aybill Type<br>Expiry Date  | NEXT DAY<br>STATEMENT AND<br>21/05/2019 |
|---------------------------------------|--|---|---|
| <b>Identifier ID</b><br>C326000000008 | Postoffice<br>HALBA (STANDARD)                               | <b>Delivery Info</b><br>Ahmad M. Ibrahim<br>15/05/2019 2:10:43 PM<br>MEMBER OF FAMILY | <b>Signature</b><br>RAYES               |
| C326000000017                         | HALBA (STANDARD)   | Ahmad M. Ibrahim<br>17/05/2019 12:24:52 PM<br>MEMBER OF FAMILY                        | SLIALI                                  |
| C3260000000002                        | BATROUN (STANDARD)   | Sami Harrach<br>10/05/2019 10:46:42 AM<br>HIMSELF                                     | SALOUM                                  |
| C3260000000001                        | BATROUN (STANDARD)   | Sami Harrach<br>10/05/2019 11:04:08 AM<br>HIMSELF                                     | ISSA                                    |
| C326000000015                         | BATROUN (STANDARD)   | Sami Harrach<br>13/05/2019 12:33:08 PM<br>HIMSELF                                     | LOSTI                                   |
| C3260000000022                        | BATROUN (STANDARD)   | Sami Harrach<br>21/05/2019 10:38:56 AM<br>HIMSELF                                     | RAMONDA                                 |
| C326000000039                         | CHOUEIFAT (STANDARD)   | Rawad Souki<br>10/05/2019 11:01:41 AM<br>HIMSELF                                      | RANA                                    |
| C3260000000009                        | BATROUN (STANDARD)   | Louay Hachem<br>13/05/2019 12:51:37 PM<br>HIMSELF                                     | CHADIZEENI                              |
| C326000000030                         | SAIDA (STANDARD)   | ROUTE 4<br>13/05/2019 1:19:17 PM<br>HIMSELF   | HISHAMHARB                              |
| C326000000033                         | SAIDA (STANDARD)   | ROUTE 7<br>10/05/2019 2:17:21 PM<br>WORKER  | MHMD GAZLEH                             |
| C3260000000028                        | SAIDA (STANDARD)   | ROUTE 7<br>14/05/2019 12:23:14 PM<br>WORKER   | JAAFAR HAYDAR                           |
| C3260000000026                        | SAIDA (STANDARD)   | ROUTE 7<br>14/05/2019 12:50:10 PM<br>WORKER   | DALALYONES                              |

| ₩aybill No<br>Sender<br>Entry Date | PX10003291878<br>Dar Al Handasah - Nazih Taleb<br>09/05/2019 | Speed<br>Waybill Type<br>Expiry Date                                | NEXT DAY<br>STATEMENT AND<br>21/05/2019 |
|------------------------------------|--|---|---|
| Identifier ID<br>C326000000035     | Postoffice<br>SAIDA (STANDARD)                               | <b>Delivery Info</b><br>ROUTE 6<br>10/05/2019 9:58:49 AM<br>HIMSELF | <b>Signature</b><br>ROLA                |
| C326000000036                      | SAIDA (STANDARD)   | ROUTE 6<br>10/05/2019 10:40:09 AM<br>HIMSELF                        | NAYEF                                   |
| C326000000031                      | TYRE (STANDARD)  | ROUTE 1<br>10/05/2019 11:44:07 AM<br>HIMSELF                        | ROGIN JMAL                              |
| C326000000023                      | TYRE (STANDARD)  | ROUTE 4<br>13/05/2019 12:43:32 PM<br>WORKER                         | AHMAD TALIB.                            |
| C326000000024                      | TYRE (STANDARD)  | ROUTE 6<br>10/05/2019 12:00:50 PM<br>WORKER                         | JAMAL ESMAIL                            |
| C326000000029                      | TYRE (STANDARD)  | ROUTE 6<br>14/05/2019 10:50:15 AM<br>WORKER                         | LINA SAROUR                             |
| C326000000027                      | TYRE (STANDARD)  | ROUTE 6<br>14/05/2019 11:42:14 AM<br>WORKER                         | KAMAL MAHSI                             |
| C326000000055                      | JBEIL (STANDARD)   | ROUTE 6<br>10/05/2019 12:40:55 PM<br>HIMSELF                        | SUZANGHAYYAD                            |
| C326000000006                      | TRIPOLI CENTER (STANDARD)                                    | ROUTE 5<br>10/05/2019 11:38:12 AM<br>WORKER                         | NAZEM LAZKANI                           |
| C326000000020                      | TRIPOLI CENTER (STANDARD)                                    | ROUTE 10<br>10/05/2019 10:14:25 AM<br>HIMSELF                       | JIHAN DANHACH                           |
| C326000000068                      | TRIPOLI CENTER (STANDARD)                                    | ROUTE 6<br>10/05/2019 9:35:03 AM<br>WORKER                          | FATWN                                   |
| C326000000014                      | TRIPOLI CENTER (STANDARD)                                    | ROUTE 11<br>13/05/2019 10:22:03 AM<br>WORKER                        | FAYSAL KHAWLA                           |

| Waybill No<br>Sender<br>Entry Date | PX10003291878<br>Dar Al Handasah - Nazih Taleb<br>09/05/2019 | Speed<br>Waybill Type<br>Expiry Date                                 | NEXT DAY<br>STATEMENT AND<br>21/05/2019 |
|------------------------------------|--|--|---|
| Identifier ID<br>C3260000000021    | Postoffice<br>TRIPOLICENTER (STANDARD)                       | <b>Delivery Info</b><br>ROUTE 11<br>13/05/2019 1:45:21 PM<br>HIMSELF | Signature<br>ZAFER ZREIKA               |
| C326000000016                      | TRIPOLI CENTER (STANDARD)                                    | YOUSSED TALEB<br>11/05/2019 9:59:48 AM<br>WORKER                     | ZEINA AKUME                             |
| C3260000000005                     | TRIPOLI CENTER (STANDARD)                                    | ROUTE 3<br>11/05/2019 10:26:08 AM<br>HIMSELF                         | AIMON NAKHOUL                           |
| C326000000070                      | RIAD EL SOLH (STANDARD)                                      | Issa Alti<br>13/05/2019 9:49:49 AM<br>WORKER                         | FADIHADAD                               |
| C326000000047                      | RIAD EL SOLH (STANDARD)                                      | Issa Alti<br>13/05/2019 9:54:14 AM<br>WORKER                         | AHMAD HALABI                            |
| C326000000011                      | TRIPOLI CENTER (STANDARD)                                    | MOHAMAD SOBEH<br>10/05/2019 2:35:13 PM<br>MEMBER OF FAMILY           | ABDALLA DANKAR                          |
| C326000000003                      | TRIPOLI CENTER (STANDARD)                                    | MOHAMAD SOBEH<br>13/05/2019 11:55:12 AM<br>WORKER                    | JAN NEHMEH                              |
| C326000000048                      | JDEIDET METN (NON-DOCUMENT)                                  | Hadi maatouk<br>10/05/2019 12:37:25 PM<br>HIMSELF                    | ROLA                                    |
| C326000000067                      | HALBA (STANDARD)   | Fadi Allouch<br>10/05/2019 9:11:44 AM<br>HIMSELF                     | ILYAANYOUNISS                           |
| rotal Delivery for Ways            | ,,,,<br>PX10003231878 63                                     |  |   |

|                              | PX10003291878 69 |
|------------------------------|------------------|
|                              | Total            |
| ANTELIAS (NON DOCUMENT)      | 2                |
| BATROUN (STANDARD)           | 7                |
| CHEHIM (STANDARD)            | 3                |
| CHOUEIFAT (STANDARD)         | 3                |
| HALBA (STANDARD)             | 8                |
| JBEIL (STANDARD)             | 10               |
| JDEIDET EL METN (STANDARD)   | 2                |
| JDEIDET METN (NON-DOCUMENT)  | 1                |
| JOUNIEH (STANDARD)           | 5                |
| RIAD EL SOLH (STANDARD)      | 2                |
| SAIDA (STANDARD)             | 8                |
| TAHWITAT EL GHADIR (STANDARD | ) <b>3</b>       |
| TRIPOLI CENTER (STANDARD)    | 9                |
| TYRE (STANDARD)              | 6                |
| Total                        | 69               |
|                              |                  |

### **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 3.14 Meeting Invitees by Phase of Engagement

80754









[This page has intentionally been left blank.]

#### **Scoping Phase Meetings**

#### **Authorities (National)**

- Ministry of Environment (MOE)
- Lebanese Petroleum Administration (LPA)
- Ministry of Energy and Water
- Ministry of Public Works and Transport (MoPWT)-Directorate General of Land & Maritime Transport
- Directorate General of Civil Aviation-Meteorological Department (DGCA)
- Ministry of Culture (MoC)-Directorate General of Antiquities (DoA) Ministry of Culture (MoC)- Directorate General of Cultural Affairs
- Ministry of Agriculture-Directorate of Fisheries and Aquaculture
- Ministry of Economy and Trade
- Ministry of Interior and Municipalities- General Directorate of Civil Defence
- Ministry of Interior and Municipalities- General Directorate of Public Security
- Lebanese General Force
- Ministry of Social Affairs-General Directorate
- Ministry of Tourism-General Directorate
- Ministry of Industry
- Ministry of Public Health-Directorate of Medical Care
- Ministry of Defence
- Ministry of Post and telecommunication
- Ministry of Labor
- Ministry of Finance
- Lebanese Directorate General of Civil Aviation (DGCA)
- Disaster Risk Management Unit
- Port authorities Port of Beirut
- Port security ISF
- Lebanese Customs
- Lebanese Armed Forces (LAF) •
- Lebanese Navy
- Lebanese Security Force
- CNRS
- Lebanese Centre for Policy Studies

#### Authorities (Governorates and Municipalities)

- Governorate of Akkar
- Municipality of Al-Kleiat, Akkar
- Municipality of Al-Mehamra, Akkar
- Municipality of Al-Moukaiteh, Akkar
- · Municipality of Arida, Akkar
- · Municipality of Bebnine, Akkar
- Municipality of Cheikh Zennad Tal Bibé, Akkar
- Municipality of Kobbet Bchamra, Akkar
- Governorate of North Lebanon
- Municipality of Bhanine, North Lebanon
- Municipality of Al Minieh, North Lebanon
- Municipality of Deir Ammar, North Lebanon
- Municipality of Baddaoui, North Lebanon
- Municipality of Tripoli, North Lebanon
- Municipality of Al-Mina, North Lebanon
- Municipality of Chekka, North Lebanon
- Municipality of Selaata, North Lebanon
- Municipality of Koubba, North Lebanon
- Municipality of Batroun, North Lebanon
- Municipality of Kafarabida, North Lebanon
- Municipality of Damour, Mount Lebanon
- Municipality of Koubayat, North Lebanon
- Municipality of Al-Mehamra, Akkar
- Municipality of Al-Hery, North Lebanon
- Municipality of Hamat, North Lebanon
- Municipality of Rass Maska, North Lebanon
- Municipality of Thoum, North Lebanon
- Municipality of Anfeh, North Lebanon
- Municipality of Qalamoun, North Lebanon
- Municipality of Al-Hraicheh, North Lebanon
- Governorate of Mount Lebanon

#### Agencies: International Agencies, Civil Society, Academia, Business

- Association of Travel and Tourist Agents in Lebanon
- Hotel owners syndicate
- National Socio-economic Council
- Federation of Chamber of Commerce
- Association of Lebanese Industrialist (ALI)
- Fishermen syndicates (representatives from Akkar, Tripoli and Jounieh)
- Hotel owners syndicate
- Public transportation syndicate
- United Nations Interim Force in Lebanon (UNIFIL)
- United Nations Educational, Scientific and Cultural Organisation (UNESCO)
- United Nations High Commissioner for Human Rights (UNHCHR)
- International Labour Organisation (ILO)
- Eco-Movement organisation)
- The Lebanese Environment Party
- Lebanese Oil and Gas Initiative (LOGI)
- Society for the Protection of Nature in Lebanon (SPNL)
- Green line
- Geoflint
- International Union for the Conservation of Nature (IUCN)
- Legal Agenda
- Nahnoo
- Terre Liban
- Operation Big Blue
- Diaries of the oceans
- American University of Beirut (marine biology research)

- Municipality of Bouar, Kesrouane, Mount Lebanon
- Municipality of Safra, Kesrouane, Mount Lebanon
- Municipality of Adma, Kesrouane, Mount Lebanon
- Municipality of Okiabe, Kesrouane, Mount Lebanon
- Municipality of Jounieh, Kesrouane, Mount Lebanon
- Municipality of Zouk Mosbeh, Kesrouane, Mount Lebanon
- Municipality of Zouk Mikhael, Kesrouane, Mount Lebanon
- Municipality of Dbayeh, Matn, Mount Lebanon
- Municipality of Antelias, Matn, Mount Lebanon
- Municipality of Jal El-Dib, Matn, Mount Lebanon
- Municipality of Zalka, Matn, Mount Lebanon
- Municipality of Burj hammoud, Matn, Mount Lebanon
- Municipality of Beirut
- Governor of Beirut
- Municipality of Berbara, Jbeil, Mount Lebanon
- Municipality of Aamchit, Jbeil, Mount Lebanon
- Municipality of Monsef, Jbeil, Mount Lebanon
- Municipality of Jbeil, Mount Lebanon
- Municipality of Fidar, Mount Lebanon
- Municipality of Halet, Jbeil, Mount Lebanon
- Municipality of Naher Ibrahim, Jbeil, Mount Lebanon
- Municipality of Ghoubrayreh, Mount Lebanon

#### **Baseline Phase Meetings**

## Authorities (National)

#### Authorities (Municipalities)

#### Agencies: International Agencies, Civil Society, Academia, Business

#### Potentially Affected Groups (across the municipalities included in the baseline)

- MOE
- MOEW
- MOC (DGA)
- MOA (DFA)
- Ministry of Displaced
- Ministry of Tourism
- MOSA
- Central Administration of Statistics (CAS)
- CNRS (NCMS, Geophysics Department, Geology Department and RS)
- Ports Authority
- MOPWT
- Ministry of Foreign Affairs
- Ministry of Justice
- Disaster Risk Management Unit
- Lebanese
   Atomic Energy
   Commission
   (LAEC)

- Municipality of Bebnine, Akkar
- Municipality of Al-Mina, North Lebanon
- Municipality of Chekka, North Lebanon
- Municipality of Batroun, North Lebanon
- Municipality of Anfeh, North Lebanon
- Municipality of Safra, Kesrouane, Mount Lebanon
- Municipality of Dbayeh, Matn, Mount Lebanon
- Municipality of Aamchit, Jbeil, Mount Lebanon
- Municipality of Jbeil, Mount Lebanon

- UNESCO
- Development for People and Nature Association (DPNA)
- Green Square
- Lebanese University
- AUB
- Balamand University
- City University
- USEK
- Divers syndicate

- Fishermen
- Fishing Households (Women)
- Anglers
- Coastal farmers
- Natural resource users
- Women
- Unemployed Youth
- Business Yacht and Boat Services
- Business Industry
- Business Restaurants
- Business –
   Fishermen
- Fishermen Cooperative
- Business Traders and Services
- Business Hotels
- Business Beach Resort
- Business Informal Businesses

#### **Disclosure Phase Meetings**

#### **Authorities (National)**

- Central Administration of Statistics (CAS)
- CNRS (NCMS, RS, Geophysical Department, Geology Department)
- Directorate General of Civil Aviation-Meteorological Department (DGCA)
- ISF
- Lebanese Atomic Energy Commission
- Lebanese Centre for Policy Studies (LCPS)
- Lebanese General Security Force
- Lebanese Petroleum Administration (LPA)
- Ministry of Agriculture-Directorate of Fisheries and Aquaculture
- Ministry of Culture (MoC)-Directorate General of Antiquities (DoA)
- Ministry of Culture (MoC)-Directorate General of Cultural Affairs
- Ministry of Defence Lebanese Armed Forces (LAF)
- Ministry of Defence Lebanese Navy
- Ministry of Displaced
- Ministry of Economy and Trade
- Ministry of Energy and Water
- Ministry of Environment (MOE)
- Ministry of Finance
- Ministry of Finance- Lebanese Customs
- Ministry of Foreign Affairs (MOFA)
- Ministry of Industry
- Ministry of Interior and Municipalities- General Directorate of Civil Defence
- Ministry of Interior and Municipalities- General Directorate of Public Security
- Ministry of Interior Lebanese General Force
- Ministry of Justice
- Ministry of Labor
- Ministry of Post and Telecommunications
- Ministry of Public Health-Directorate of Medical Care
- Ministry of Public Works and Transport (MoPWT)-

#### Authorities (Governorates and Municipalities)

- Municipality of Aamchit, Jbayl, Mount Lebanon
- Municipality of Adma, Kesrouane, Mount Lebanon
- Municipality of Al Minieh, North Lebanon
- Municipality of Al-Hery, North Lebanon
- Municipality of Al-Kleiat, Akkar
- Municipality of Al-Mehamra, Akkar
- Municipality of Al-Mina, North Lebanon
- Municipality of Al-Moukaiteh, Akkar
- Municipality of Anfeh, North Lebanon
- Municipality of Antelias, Matn, Mount Lebanon
- Municipality of Baddaoui, North Lebanon
- Municipality of Batroun, North Lebanon
- · Municipality of Bebnine, Akkar
- Municipality of Beirut
- Municipality of Berbara, Jbayl, Mount Lebanon
- Municipality of Berj Al barajneh, Mount Lebanon
- Municipality of Bouar, Kesrouane, Mount Lebanon
- Municipality of Burj hammoud, Matn, Mount Lebanon
- Municipality of Cheikh Zennad Tal Bibé, Akkar
- Municipality of Chekka, Batroun, North Lebanon
- Municipality of Chouaifat, Mount Lebanon
- Municipality of Dbayeh, Matn, Mount Lebanon
- Municipality of Deir Ammar, North Lebanon
- Municipality of ElAkaybeh, Kesrouane, Mount Lebanon
- Municipality of Fidar, Jbayl, Mount Lebanon
- Municipality of Ghoubayreh, Mount Lebanon
- Municipality of Halet, Jbayl, Mount Lebanon
- Municipality of Hamat, North Lebanon
- Municipality of Jadra, Mount Lebanon
- Municipality of Jal El-Dib, Matn, Mount Lebanon

#### Agencies: International Agencies, Civil Society, Academia, Business

- Federation of Chamber of Commerce
- Association of Lebanese Industrialist (ALI)
- Organization for Petroleum and Energy Sustainability (OPES)
- Geoflint
- ELARD
- Fishermen syndicates
- Hotel owners syndicate
- Association of Travel and Tourist Agents in Lebanon
- Divers Syndicate
- Engineers Syndicate
- United Nations Educational, Scientific and Cultural Organisation (UNESCO)
- United Nations Interim Force in Lebanon (UNIFIL)
- International Labour Organisation (ILO)
- International Union for the Conservation of Nature (IUCN)
- Eco-Movement organisation
- The Lebanese Environment Party
- Lebanese Oil and Gas Initiative (LOGI)
- Society for the Protection of Nature in Lebanon (SPNL)
- Green line
- Legal Agenda
- Nahnoo
- Terre Liban
- Operation Big Blue
- Diaries of the oceans
- Development for People and Nature Association (DPNA)
- Green Square, Aamchit
- Lebanese Association for Safety and Emergency, Batroun
- Women in Front, Dbayeh
- Bahr Lubnan NGO
- Jouzour Loubnan
- Green Orient
- Kulluna IradaBeity Association
- Inno Dev/Green Area
- LTA
- Baldati
- Common Space Initiative
- Creativity Development Centre (CDC)

- Directorate General of Land & Maritime Transport
- Ministry of Social Affairs-General Directorate
- Ministry of Tourism- General Directorate
- Port Authorities Port of Beirut
- Port security
- Presidency of the Council of Ministers- Disaster Risk Management Unit
- Municipality of Jbeil, Jbayl, Mount Lebanon
- Municipality of Jieyh, Mount Lebanon
- Municipality of Jounieh, Kesrouane, Mount Lebanon
- Municipality of Kfaraabida, North Lebanon
- Municipality of Kobayat, North Lebanon
- Municipality of Kobbet Bchamra, Akkar
- Municipality of Koubba, North Lebanon
- Municipality of Monsef, Jbayl, Mount Lebanon
- Municipality of Naameh, Mount Lebanon
- Municipality of Naher Ibrahim, Jbayl, Mount Lebanon
- Municipality of Qalamoun, North Lebanon
- Municipality of Rass Maska, North Lebanon
- Municipality of Rmeileh, Mount Lebanon
- Municipality of Safra, Kesrouane, Mount Lebanon
- Municipality of Selaata, North Lebanon
- Municipality of Siblin, Mount Lebanon
- Municipality of Thoum, North Lebanon
- Municipality of Tripoli, North Lebanon
- Municipality of Zalka, Matn, Mount Lebanon
- Municipality of Zouk Mikhael, Kesrouane, Mount Lebanon
- Municipality of Zouk Mosbeh, Kesrouane, Mount Lebanon

- Fenasol
- Meeting the Civil Voice
- Byblos Ecologia
- American University of Beirut (marine biology research)
- Lebanese University
- Balamand University
- City University
- USEK

RSK/H/P/P80754 Block 4 rev2





[This page has intentionally been left blank.]

**Total Exploration and Production Liban Sal** 

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 3.15 Stakeholder Engagement Presentation

80754









[This page has intentionally been left blank.]



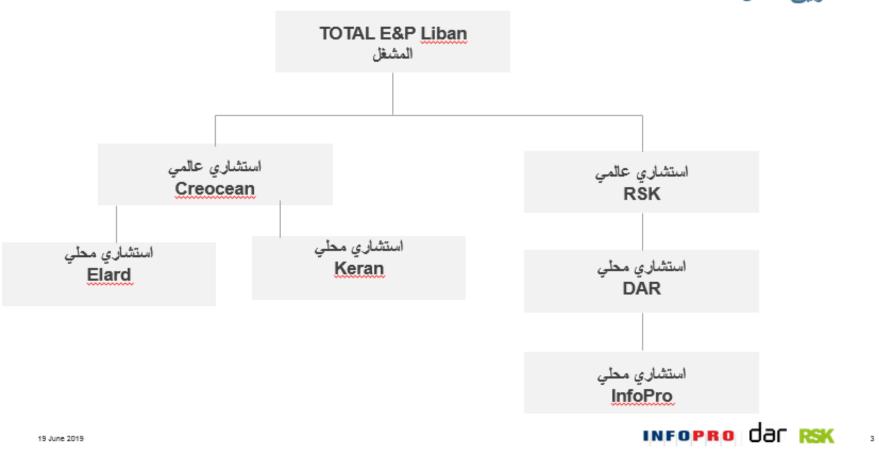
#### أهداف الاجتماع

- دراسة تقييم الأثر البيئي والاجتماعي هي الخطوة الأولى في عملية التراخيص
- تقوم شركة Total بجمع معلومات معمقة لتقييم الآثار البيئية والاجتماعية السلبية والايجابية
- سيئم إجراء دراسة لتقييم الأثر البيئي والاجتماعي بموجب المرسوم ١٦٣٣ تاريخ ٢٠١٢ "أصول تقييم الأثر البيئي"، ووفقًا للقوانين المرعية الإجراء، والمواصفات المعتمدة من قبل شركة TOTAL، والمعايير الدولية.
- يتمثل جزء مهم من عملية ESIA في المشاركة / التشاور مع أصحاب المصلحة والمجموعات المتأثرة المحتملة لدمج أسئلتهم / اقتراحاتهم والتأكد من معالجة الآتار المحتملة لأنشطة الشركة بما يتماتني مع التسلسل الهرمي للتخفيف

INFOPRO dar RSK

12 أثار الدابق 2019

#### فريق العمل



## إقرار أعمال التنقيب عن النفط والغاز في البحر - التشريعات الأساسية

| التشريعات                  | عتواتها  | ملدِّص عتها  |
|----------------------------|--|--|
| القانون رقم ٤٤٤ تاريخ ٢٠٠٢ | فاتون حماية البيئة   | بِحَدُد الإطار العام لحمانِة البيئة في لبنان   |
| المرسوم ٨٦٣٣ تاريخ ٢٠١٢    | أصول تقييم الأثر البيئي  | يحدُّد سُروط إعداد النَّقييم البيئي  |
|                            | التقييم البيئي الاستراتيجي لمشاريع السياسات والخطط<br>والبرامج في القطاع العام | بِحدُّد الأصول الواجب انَّباعها لتَقيِيم الآثار البيئية المحتملة لسياسة مقترحة أو<br>خطَّة أو برنامج أو دراسة أو استثمار يطال منطقة لينانية معيِّنة أو أحد قطاعات<br>العمل |
| القرار ۲۲۱/۱ كاريخ ۲۰۱۵    | ألية مراجعة تقارير تحديد نطاق تقييم الأثر البيئي وتقارير<br>تقييم الأثر البيئي | يحتوي هذا القرار على الإجراءات الذي تعتمدها وزاة الطاقة لمراجعة نقارير<br>تحديد نطلق نقييم الأتر البيئي وتقارير تقييم الأثر البيئي   |

INFOPRO dar RSK

12 أثيار الدابور 2019

## إقرار أعمال التنقيب عن النفط والغاز في البحر

| ملدِّص عنها  | عتواتها   | التشريعات   |
|--|---|---|
| يحدُّد القواعد الرئيسية المتطَّقة بالأنسَّطة البترولية في المياه اللبنانية   | قانون الموارد البترولية في المياه البحرية                                       | القانون رقم ۱۳۲ تاریخ ۲۰۱۰                          |
| تطبيق القواعد الرئيسية المتعلقة بالأنشطة البترولية التي يحدَّدها قانون<br>الموادد الدرولية في المواد البحوية   | الأنظمة والقواعد المتعلقة بالأنشطة البترولية                                    | المرسوم رقم ۱۰۲۸۹ تاریخ ۲۰۱۳<br>وتعدیلاته           |
| تطبيق القواعد الرئيسية المتعلقة بالأنشطة البترولية التي يحدَّدها قانون الموارد البترولية التي يحدَّدها قانون الموارد البترولية في المواد البحرية<br>ينصُّ على الأحكام التعاقدية لأتشطة الاستكشاف والإنتاج لاتَّقاقيات الاستكشاف والإنتاج المبرمة | نموذج اتقاقية الاستكشاف والإنتاج  | الملحقُ رفَم ٢ الثابع للمرسوم رفَم ٤٣<br>تاريخ ٢٠١٧ |
| يكفل لكلُّ سَخص حقَّ الوصول إلى المعلومات الموجودة لدى كافة إدارات<br>الدالة   | فانون الحقِّ في الوصول إلى المعلومات  | القاتون رقم ۲۸ تاریخ ۲۰۱۷                           |
| سوب<br>رأي هيئة إدارة قطاع البترول، قبل البدء بحفر أيٌّ بئر أو مجرى بئر على  | يجب الحصول على رخصة حفر صادرة عن الوزير بالاستناد الى عمق يتجاوز خمسين ٥٠ مترًا | المادَّة ٩٢ من المرسوم رقم ١٠٢٨٩<br>تاريخ ٢٠١٣      |
|  | قانون السَّفاقية  | قانون رقم 84 تاريخ 2017                             |

INFOPRO dar RSK 5

15 أثيار/سابو 2019

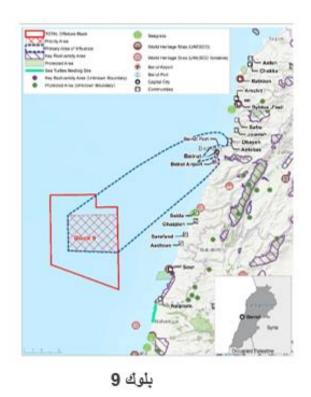
#### المعايير الخاصة بشركة TOTAL

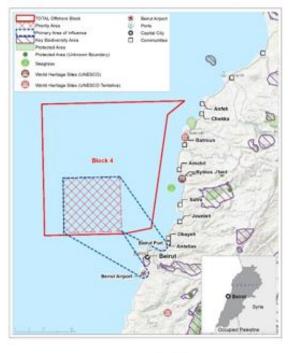
- GS EP ENV 001
   الشروط البيئية لتصميم المشاريع وأنشطة الاستكشاف والإنتاج
  - GS EP ENV 120
     تقييم الأثر البيئي لأنشطة الاستكشاف والإنتاج
    - GS EP SDV 102 تقييم الأثر الاجتماعي
- GS EP ENV 112
   الدراسات البيئية الأساسية ودراسات الرصد في المياه البحرية والساحلية
  - GS EP SDV 101
     الدراسة الاجتماعية الأساسية

12 أثار اسابق 2019



## منطقة الأعمال





بلوك ٤

12 أثار الحام 2019



#### عملية تقييم الأثر البيئي والاجتماعي











التقييم الآولي وتحديد تطاق دراسة تقييم الآثر الديني والاجتماعي بيدف عند المرحلة إلى تحديد نطاق والاجتماعي والاجتماعي، ومنطقة الدراسة والاجتماعي، ومنطقة الدراسة والعطومات القتلمة والاختراط المهاتة المحتملة التي يجب تقييمها بشكل الاراسة تقييم الاجتماعي



يعد إنجال مسوكة دراسة تقييم الأثر البيئي والاجتماعي، سيتك نشر المطومات ومشاركة العامة (إلا في حال تنازل وزارة البيئة عن هذا الشرط (قرار وزارة البيئة بن هذا الشرط (قرار وزارة البيئة برقم أصحاب العلاقة على إبداء الأراء بشأن نتائج الدراسة ولشرح كيقية معالجة تطبقاتهم

تشر المطومات



سيتكم إعداد خطط إدارة للتخفيف من الأثار السلبية وتعزيز الأثار الإيجابية والقوائد المحتملة

## دراسة الوضع الاجتماعي للمفاطق مينة تحديد الآثار المحتملة المحيطة بالمصووع مينة إجراء دراسات لقيم البيئة المحتملة للمشروع وتقييمها استدلاً الاجتماعية الاقتصادية وسيتحكث الاجتماعية والمينة المليعية الخصاصيون من المملكة المحددة المحتمد والبيئة المليعية المناسعية المالية المليعية المليعية

سيتم إجراء براسات لقيم البيئة الإجتماعية الإراء براسات لقيم البيئة الاجتماعية ويتحدد و المنطقة المتحدد ( RSK) إما المنطقة المتحدد المتحدد المتحدد المتحدد والاستحاد والاستحاد المتحدد المتحدد

وصف البينة المحيطة للمشروع أُجريت دراسة أساسية اللبيئة البحرية لقهم ظروف البيئة البحرية والطبيعية بشكل أقضل

## مشاركة أصحاب العلاقة



#### المشاورات العامة

- تقرير تحديد نطاق دراسة تقييم الأثر البيئي والاجتماعي مُتاح على الموقع التالي http://www.rsklebanon.com/total/blocks4and9/scoping-comments/ منذ ٣ أيار/مايو ٢٠١٩ حتى ٢ حزيران- يونيو ٢٠١٩
  - يمكن إرسال التعليقات عبر الموقع الإلكتروني
- سيتم تضمين التعليقات في تقرير تحديد نطاق دراسة تقييم الأثر البيئي والاجتماعي لتقديمها إلى هيئة إدارة قطاع البترول ووزارة البيئة
- عقدت اجتماعات مشاركة أصحاب المصلحة على المستوى الوطني في الأسبوع الذي يبدأ في 13 مايو وما زالت مستمرة: سيتم إدراج التعليقات في تقرير تحديد النطاق
- اجتماع لمشاركة العامة يوم الجمعة ٢٤ أيار/مايو ٢٠١٩ في فندق راديسون، فردان، بيروت، من الساعة ٠٠:٠٠ صياحًا حتى ٢٠:٠٠ ظهرًا

INFOPRO dar RSK

#### الدراسات البيئية والاجتماعية الأساسية

#### دراسة الأساس الاجتماعي

#### دراسة خط الأساس البيئي

الدراسة المكتبيّة

الحمل الميداني جمع البيانات الأولية المسوحات البحرية الأساسية

تقرير البيئي وصف سياق المشروع

تحديد الحساسيات

خطة إشراك أصحاب المصلحة

الدراسة المكتبيّة

العمل الميداني جمع البيانات الأولية ارتباطات أصحاب المصلحة على المستوى المحلى

> تقرير الاجتماعي وصف سياق المشروع تحديد الحساسيات







## تقييم الأثر البيئي والاجتماعي (ESIA)

## تقييم الأثر البيئي والاجتماعي

عملية تحديد النطاق نتائج دراسة الأساس الاجتماعي وخطة إشراك أصحاب المصلحة أجتماعات أصحاب المصلحة

مشاركة العامة

تقييم الأثر البيئي والاجتماعي

نقييم الآثار الاجتماعية تعريف تدابير التخفيف

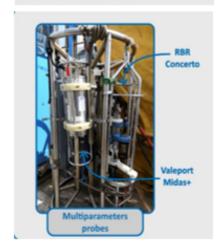
إقصاح تقييم الأثر البيئي والاجتماعي اجتماع لمشاركة العامة

تقرير تقييم الأثر البيئي والاجتماعي





# Messenger Niskin bottle Rosette



19 June 2019

#### عملية تحديد النطاق الوصف البيئي

#### التتارات

سيتم تحديدها أتناء دراسة محاكاة التسرّب النفطى

#### جودة المياه

- مصادر ثلوت مختلفة بيولوجية (الصرف الصحي)، وكيميائية، بما في ذلك المعادن (الصرف الصناعي)، ثلوت المياه الناجم عن المغذيات المفرطة
  - (الأنسطة الصناعية، والأسمدة، والمنظفات، والصرف الصحى)
- تمّ رصد تغرات عدم وجود بياتات متوفّرة للبلوگين ٤ و٩، لذا فإنّ نطاق المسح الميداني يسمل جودة المياه

#### جودة الرواسب

- كما هي الحال في ما يخص جودة المياه، تتجمّع الملوتات في بعض المناطق، في حين تُعتبر مناطق أخرى "نظيفة". وتنتقر عدة مصادر للتلوّت على طول التناطئ، مثل المصانع ونقاط التخلّص من مياه الصرف الصحى. هذا وتلعب مورفولوجيا الأرض وأنماط تدفق المياه دورًا أساسيًا في تحديد مستويات التلوّت.
- تمّ رصد تغرات تتوفّر بياتات محدودة من البلوگين ٤ و٩، فإنّ نطاق المسح الميداني يشمل جودة

INFOPRO dar RSK

#### عملية تحديد النطاق - الوصف البيئي

- الإيكولوجيا البحرية
- المواطن الفطرية تم تحديد ٤ مناطق باعتبارها مواقع هامة محتملة وهي جزءٌ من منطقة أخدود شرق المتوسط (ELCA):
  - منحدر بیروث
  - أخدود مار جرجرس
    - أخدود جونية
    - أخدود سبنيق

قد تتواجد الأخاديد الغائصة والجبال البحرية ومرجان المياه العميقة والمنافس الماثية الحرارية والمسارب الباردة ومنصات الكربونات (carbonate mounds) ويعض مناطق نقص الأكسجين.

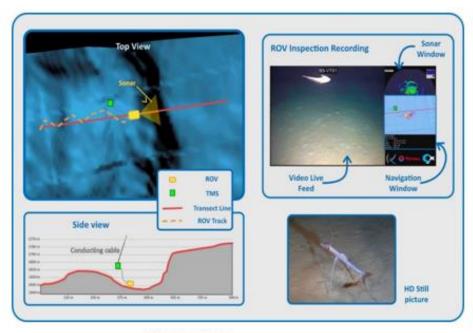
كذلك، تتواجد مواطن للنجيل البحري في عدد من المواقع.

INFOPRO dar RSK



## مقاطع الفيديو بواسطة مركبة تحت الماء

٢٢ مقاطع فيديو للبلوكين : ٢٢ كم في المجموع

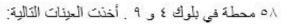




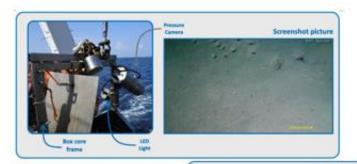
ROV - APACHE



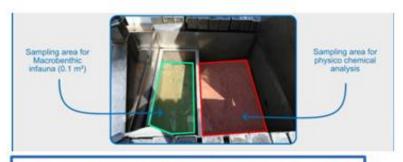
## أخذ عينات من الرواسب



- المعلمات الفيزيائية والكيميائية
- حيوانات القاع مقاطع الفيديو لقاع البحرو فيديو واحد لكل عينة









INFOPRO dar RSK



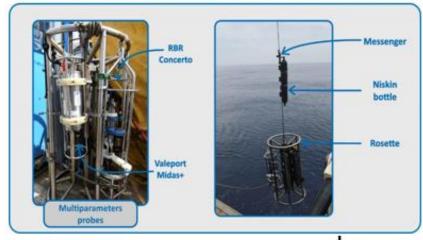


### أخذ عينات مياه البحر

٨ محطات في بلوك ٤ و 9 ، مع أخذ العينات التالية في كل محطة: - مياه البحر على عمق 3 أمتار (1-2 متر تحت السطح ، منتصف العمق ، بالقرب من القاع) - عوالق كائنات حية

- عمود الماء (الحرارة، الملوحة، الاوكسيجين، وغيرها)

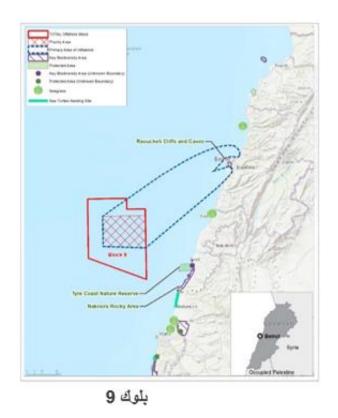


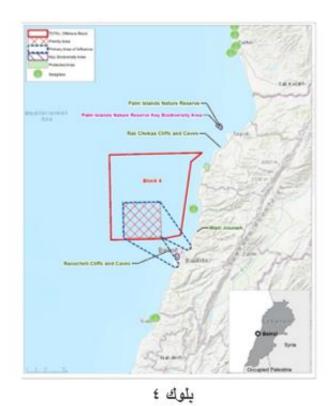


19 June 2019

INFOPRO dar RSK

#### المناطق البيئية الحساسة













#### مشاركة أصحاب العلاقة

- يدأت مشاركة أصحاب العلاقة في مرحلة الاستطلاع وتستمر خلال مرحلة الدراسة الأساسية وخلال مرحلة الإفصاح عن نتائج دراسة تقييم الأثر البيئي والاجتماعي.
  - من الأهداف الأساسية للعملية الاستطلاعية التأكد من أنّ السروط المرجعية لدراسة تقييم الأثر البيئي والاجتماعي تعكس هموم واقتراحات جميع فئات الأطراف المعنيّة.











#### مشاركة أصحاب العلاقة

#### سيتم التواصل مع الأطراف التالية:

- السلطات العامة (المستوى الوطني)
  - سلطات المحافظات
    - السلطات البلدية
  - المنظمات/الجمعيات الوطنية
    - المنظمات الدولية
- المجتمع المدني: المنظمات غير الحكومية الدولية والوطنية
  - المجتمعات المحلّية (المجموعات التي قد تتأثر بالمشروع)
    - الجهات المهتمة







#### جمع البيانات للدراسة الاجتماعية الأساسية

#### سيتم الربط بين عملية جمع البيانات للدراسة الاجتماعية الأساسية وعملية مشاركة الأطراف المعنية:

- خلال مرحلة الدراسة الاجتماعية الأساسية، سيتواصل فريق الدراسة الاجتماعية مع المجتمعات المحلّية لجمع البيانات الاجتماعية. وستوفّر عملية التواصل هذه الفرصة للأطراف المعنية للتعبير عن همومها وشواغلها المتعلقة بالمشروع وبدراسة تقييم الأثر البيئي والاجتماعي
- خلال مرحلة تقييم الأثر البيئي والاجتماعي، سيتم التواصل مجددًا مع الأطراف المعنيّة التي تمّ إشراكها في العملية الاستطلاعية لإعطائها فرصة التعبير عن أرائها وملاحظاتها بشأن نتائج دراسة تقييم الأثر البيئي والاجتماعي









#### جمع البيانات للدراسة الاجتماعية الأساسية

تقوم الدراسة الاجتماعية الأساسية على أساس نوعيّ وتشاركيّ. فسيقوم فريق جمع البيانات بجمع البيانات الأساسيّة من عيّنة مؤلّفة من سبعة أقضية في أربع محافظات وفي بلدية بيروت، وذلك من خلال مقابلات مع مخبرين أساسيين (KII) ومناقشات ضمن مجموعات مركّزة.



#### وستُجرى المقابلات مع مخبرين أساسيين من

- المجتمع المدني, المنظمات غير الحكومية المحلّية, منظمات المجتمع المدنى
  - المنظمات المعنية بالتراث الحضاري
  - الشركات (الفنادق والمطاعم والمنتجعات الشاطئية والتجار غير (الرسميين)
    - وكالات السياحة
    - التعاونيات القائمة على النشاط
      - الشركات التجارية والصناعية



#### جمع البيانات للدراسة الاجتماعية الأساسية



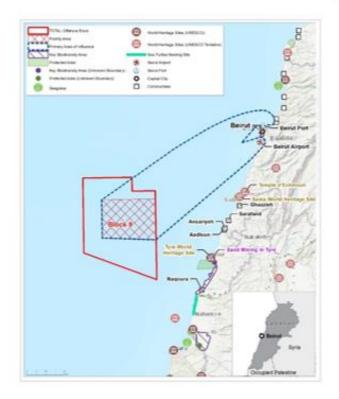
### ستُعقد نقاشات مجموعات التركيز مع:

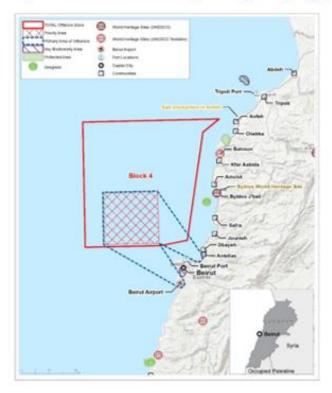
- المجموعات المتأثرة بشكل مباشر، بما في ذلك:
  - صبيادو الأسماك
    - المزارعون
- مستخدِمو الموارد الطبيعية، مثل جامعي الصفد
  - المجموعات الضعيفة و/أو المهمّشة





## الجوانب الاجتماعية الحسّاسة الأساسية التي تم رصدها

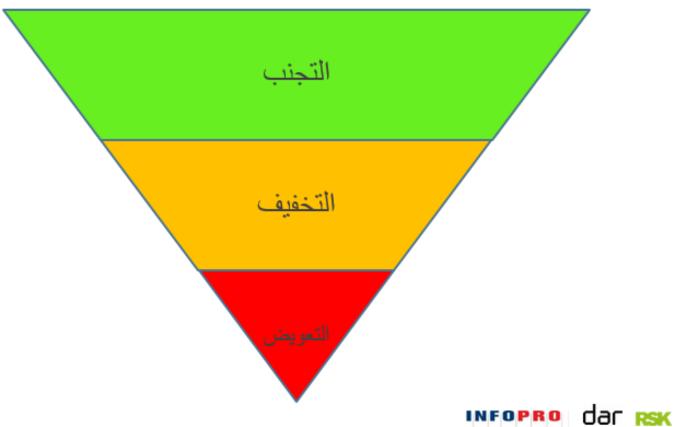








## خطة الإدارة البيئية والاجتماعية



# تحديد النطاق- شروط المرجعية لتقييم الأثر البيئي والاجتماعي

عملية تحديد النطاق تحدد التركيز على تقييم الأثر البيئي والاجتماعي

وصف أكثر تقصيلا للمشروع

مزيد من التقاصيل حول شروط الأساس

منهجية تقييم الأثر

النمذجة لتحديد النطاقات

التركيز على دراسة تقييم الأثر البيئي والاجتماعي

التشاور والمشاركة

dar RSK 29

19 June 2019

## نظام الشكاوي



Email: EP.TEPL-Info@total.com

dar RSK

19 June 2019

# أسئلة وإجابات

dar RSK 31

19 June 2019





[This page has intentionally been left blank.]

### **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 3.16 Poster for Stakeholder Engagement

80754









[This page has intentionally been left blank.]



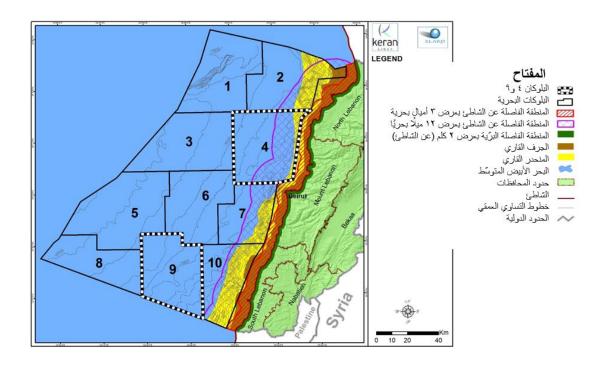
أعمال الحفر الاستكشافي لشركة Total E&P Liban













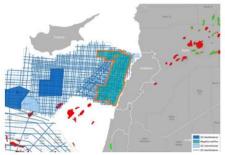






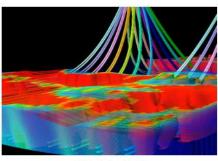






عادة معالحة السائات السيز ميّة

يجب إعادة معالجة الصور المتوفّرة والبيانات الثلاثية الأبعاد ونتأتج الدراسات الجيولوجية والجيوفيزيائية لفهم الخصائص والبنية الجيوفيزيائية للبلوك بشكل أفضل ولتجنّب المخاطر المحتملة.



التحضير لحفر الآبار

سيتم تصميم الآبار وتحديد مواصفات المعدّات. بعد ذلك، يتم إجراء الحسابات الهندسية المفصّلة وشراء المعدّات. يجب تصنيع المعدّات ونقلها واستلامها تقنيًا في لبنان قبل حشد موارد الأعمال البحرية لتركيبها.



القاعدة اللوجستية

سيتم اختيار موقع القاعدة اللوجستية. قد يكون من الضروري إجراء أحمال مدنية وأعمال بناء (خصوصًا لتركيب مصنع الطين السائل).



الحقر الأولى للبئر الاستكشاقي

عملية الحفر الأولي هي المرحلة النهائية من أعمال التنقيب. وسيتم إجراء هذه العملية بعد تنفيذ جميع الأنشطة التحضيرية.



## عملية تقييم الأثر البيئي والاجتماعي













### الإفصاح

عد إنجاز مسودة دراسة تقييم (أثر البيني والاجتماعي، سيئة (فصاح عن الاستنتاجات (إلا ألى حال تقازل وزارة الطاقة عن هذا الشرط (قرار وزارة طاقة رقم (/۲۹۲) ۱۹۰۵) مصافة رقم (/۲۹۱) المعقبة على إبداء الأراء بشأن نتائج للراسة ولشرح كيفية معالجة همومهم سابقا أو مستقبالا

### خطط الإدارة

سيتة إحداد خطط إدارة التخفيف من الآثار السلبية وتعزيز الآثار الإيجابية والفوائد المحتملة.

### تقييم الأثر

سيئة رصد الآثار والفوائد المحتملة للمشروع وتحديدها وتقييمها استندا إلي أهميتها بالنسبة إلى الناس وسيل عيشه والبيئة الطبيعية.

### الدراسة الأساسية الاجتماعية

ييتم إجراء در إسات لفهم البيئة الاجتماعية الاقتصادية والطبيعية. والميتحدث أختصاصيون من المملكة أن مع Oppole المتنافظ المعالمة المعالمة المعالمة المعالمة المحلوبة المتأثرة المعالمة الطبيعية المتأثرة المعالمة والمسلمة الطبيعية والمسلمة الطبيعية والمسلمة الطبيعية والمسلمة الطبيعية والمسلمة الطبيعية والمسلمة والمسلمة الطبيعية والمسلمة والمسلمة الطبيعية والمسلمة والمسلمة الطبيعية والمسلمة الطبيعية والمسلمة الطبيعية والمسلمة الطبيعية والمسلمة الطبيعية والمسلمة والمسلمة الطبيعية والمسلمة المسلمة المسل

## الدراسة الأساسية البيئية

جريت دراسة أساسية للبيئة لبحرية لفهم ظروف البيئة البحرية والطبيعية بشكل أفضل.

### التقييم الأوّلي والدراسة الاستطلاعية

يدف هذه المرحلة إلى تحديد فاق دراسة تغييم الأثر البيئي الاجتماعي ومنطقة الدراسة المتاحة والآثار المهامة المحتملة التي يجب تغييمها بشكل أكثر تغصيلاً للل دراسة تغييم الأثر البيئي والاجتماعي.

مشاركة أصحاب المصلحة



## الدراستان الأساسيتان البيئية والاجتماعية

البينة البحرية

البيئة الاجتماعية-

## الفوائد المحتملة







ازدياد في فرص العمل المحلِّية

التنمية الاقتصادية: ازياد معدّل التبادلات التجارية المحلّية

نقل المعرفة التقتية



### الآثار السلبية المحتملة

تقييد أنشطة صيد الأسماك في مناطق محددة

خطر وقوع حوادث مع صيّادي الأسماك أو مراكب أخرى





خطر وقوع حوادث تشمل منتجات كيميائية، مما قد يؤدّي إلى آثار على سُبُل العيش القائمة على الأنشطة البرّية/البحرية









## الملاحظات والآراء: نظام الشكاوى

يضمن نظام الشكاوى قدرة الأطراف المعنيّة على تقديم الشكاوى بسهولة ومتابعتها من قبل الجهات المختصيّة. كذلك، سيمكّن نظام الشكاوى شركة والمجتمعات Total E&P Liban المحلّية من بناء علاقات مُنتِجة وقائمة على الاحترام والفائدة المتبادلة، ما يمهّد لتنفيذ أنشطة التنقيب المستقبلية على أساس متين

| 1 تلقي الشكاوى      | التأكُّد من أنَّ العملية مُتاحة وواضحة بالنسبة إلى مقدِّمي الشكاوي وضمان السرّية                 |
|---------------------|--|
| 2 الإشعار بالاستلام | ينبغي تقديم إشعار ملموس وضمن المُهل المُحدَّدة   |
| التقييم والتعيين    | تحديد نطاق وحدود عملية التقييم   |
| التحقيق             | الالتزام بشفافية العمليّة عبر التحقّق من الوقائع وتوثيقها وضمان التواصل والإبلاغ الجيّد بالتقدّم |
|                     | تحديد الجهة المسؤولة عن اقتراح الحلّ والتوثيق والتواصل   |
|                     | تو ثبق النتائج و در حة الرضا   |



### **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 3.17 Disclosure Phase Public Consultation Meeting Invite Examples and Receipts

80754









[This page has intentionally been left blank.]





بيروت في ۽ أيلول ٢٠١٩ L19110-0100D/2930

جانب قيادة الجيش اللبنائي الموقر مديرية التوجيه بيروت، ليفان

تحية طبية ويعده

### الموضوع: دعوة لحضور جلسة مشاركة العامة لدراسة تقييم الأثر البيني لتشاطات Total E&P Liban لأعمال الحفر الاستكشافية في بلوك 1

في ٢٩ كانون الثاني ٢٠١٨، وقعت الجمهورية الثبتائية اتفاقية بالزيم عمليات الإستكشاف والإنتاج في بلوك ٤ الى كونسورائيوم مولف من TOTAL E&P TOTAL E&P Liban و Novatek سيباشر الكونسورائيوم بقيادة شركة TOTAL E&P Liban بنشاطات أعمال المغر الإستكشافية في بلوك ٤ في أو لغر عام ٢٠١٩.

بناة عليه، سيتم إجراء نقيم الأثر البيني (EIA) لأعمال الحفر المذكورة أعلاء وفقا للقوانين اللبنائية المبرعية الاجراء، بالأخص أحكام المعرسوم ATTT لعام ٢٠١٢ "أساسيات نقيم الأثر البيني" (EIA)، ومواصفات TOTAL والسعابير الدولية.

وقد عشت شركة RSK Environment Ltd وشركة دار الهندسة للتصميم والاستشارات الطنية وشاعر ومشاركوه) ش.ج.ل. المتعادلين مع شركة TOTAL E&P Liban جلسة مشاركة العامة في أيار الماضي كجزه لا يتجزأ من تقيم الأثر البيني لتشاطلت أعمال الحفر الاستكشافية لشركة TOTAL وشركاتها بهدف إعلام أصحاب المصلحة عن المشروع والأخذ بملاحظاتهم واقتر احاتهم المقدمة والإجابة على الأسئلة المتعلقة بأشطة المشروع كما كانت فرصمة لشركة TOTAL وشركاتها للقديم نظرة عامة عن الشطة العفر.

استاداً الى ما ورد أعلاد، ميتم تنظيم جلسة إضافية لمشاركة العامة لنشر مسودة تقرير تقييم الأثر البيني، وذلك في 19 أيثول ٢٠١٩ في فقفق راديسون يقو، فردان بيروت (من الساعة العاشرة صباحاً حتى الساعة الواحدة ظهراً).

يمكنكم الاطلاع على تقرير تقييم الأثر البيني على الموقع أنناه

https://www.rsklebanon.com/total/block4/eia-comments/

يشرقنا معضوركم هذا الاجتماع ولمزيد من الأستقسار، يمكنكم التواصل معنا عبر الرقم التالي: ٢٩٠٠-٢٠١٧ وصلة: ٢٦٠٦ او ٢٦٠١

والفضلوا يقيول فانتى الاحترام،

عن/ دار الهندسة للتصميم والاستشارات اللتية

إشاعر ومشاركوه) شريرا

مر و ان قبر صلی

dar.com

#### Invitation via Email





بيروت في 4 أيلول ٢٠١٩ ----/L19110-0100D

حضرة السدحييب معلوف المحترم

#### تحية طيبة ويعد،

### الموضوع: دعوة لعضور جلسة مشاركة العامة لدراسة تقييم الأثر البيني لتشاطات Total E&P Liban لأعمال الحفر الاستكشافيّة في بنوت 4

في 29 كانون الثاني 2018، وقعت الجمهورية القينقية اتفاقية بتلزيع صليات الإستكشاف والإنتاج في بلوك 4 الى كونسورتهوم سؤلف من TOTAL E&P Liban و Novatek سيباشر الكونسورتهوم بقيادة شركة TOTAL E&P Liban بنشاطات أعسال الحفر الاستكشافية في بلوك 4 في أواخر عام 2019.

بناء عليه، سيتم إجراء تقييم الأثر البيني (EIA) لأعسال الحفر المنكورة أعلاه وفقا للقوانين للبذائية السرعية الاجراء، بالأخص أحكام السرسوم 8633 لمعام 2012 "أساسيات تقييم الأثر البيني" (EIA)، وسوامسفات TOTAL والسعابير الدولية.

وقد عقدت شركة RSK Environment Ltd وشركة دار الهندسة للتصعيم والاستشارات الفنية (شاعر ومشاركوه) ش.بحل. المتعادين مع شركة TOTAL E&P Liban جلسة مشاركة العاسة في أيار الساطني كجزه لا يتجزأ من تقيم الأثر البيني لتشاطئت أعسال العفر الاستكشافية لشركة TOTAL وشركانها بهدف إعلام أصحاب المسلمة عن المشروع والأغذ يسلاحظاتهم واقتر احتهم المقدمة والإجابة على الأسئلة المتعلقة بأنشطة المشروع كما كانت فرصة لشركة TOTAL وشركانها لتقديم نظرة عامة عن أنشطة العطر.

استندا الى ساورد أعلاه، سيتم تنظيم جلستين إضافيتين لمشاركة العاسة لنشر مسودة تقرير تغييم الأثر البيغي، وذلك في 19 أيلول في فنعق راديسون يقو، فردان بيروت (من الساعة العاشرة صباحاً حتى الساعة الواحدة ظهراً)، وفي 20 أيلول في المركز الثقافي في جبيل (من الساعة العاشرة صباحاً حتى الساعة الواحدة ظهراً).

> يمكنكم الاطلاع على تقرير تقييم الأثر البيتي على الدوقع أدناه: /https://www.rsklebanon.com/total/block4/eia-comments

يشر قا حصور كم هذا الاجتماع أو ممثل علكم ولمزيد من الأستفدار ، يمكنكم التواصل معنا عبر الرقم التالي: 790002/01 وصلة: 4622 أو 2601 وتفضلوا بقبول فتق الاحترام،

> عن/ دار الهندسة للتصميم والاستشارات الفنية (شاعر ومشاركوه) ش.ج.ل.

Riegards,

#### Invitation via WhatsApp



### Receipts

|    | لانحة أسماء (9.4-2019)                             | امنع المستثم | التوقيع | تاريخ    |
|----|--|--------------|---------|----------|
| 1  | محمد شهاب الدين - المديرية العامة ا الطيران المدنى |              |         |          |
| 2  | مارك وهيية المديرية العامة االطيران المدنى         |              |         |          |
| 3  | جورج ابدا - وزارة العمل                            |              |         |          |
| 4  | فلجي اندر اوس - وزارة الانصالات                    |              |         |          |
| 5  | عبد الحفيظ القيسي - وزارة الاشغال                  |              |         |          |
| 6  | حسن قريطم - مرفأ بيروت                             |              |         |          |
| 7  | ندى سردوك - وزارة السپاحة                          |              |         |          |
| 8  | وليد عمار - وزارة الصحة العامة                     |              |         |          |
| 9  | عبد الله الحمد - وزارة الشوون الاجتماعية           |              |         |          |
| 0  | زاهي شاهين - سجلس الوزراء                          |              |         |          |
| 1  | ريمون خطار - التفاع المنني                         |              |         |          |
| 12 | دائبي جدعون - وزارة الصناعة                        |              |         |          |
| 13 | مالك شمص - وزارة الدفاع الوطش                      |              |         | 19015    |
| 14 | عبلس ايراهيم ، الأمن العام                         | Jus 15       | 41      | (1 7 2 ) |
| 15 | عماد عامان - قوى الأمن الداخلي                     | 201,0        | 4       | 4-3-201  |
| 16 | عليها عباس - وزارة الاقتصاد والتجارة               |              |         |          |
| 17 | لدى يستاني - وزارة الطاقة والمياه                  |              |         |          |
| 18 | الان بيغاني ـ وزارة المالية                        |              |         |          |
| 19 | نادي جريصالني - وزارة اليذة                        |              |         |          |
| 20 | جبران باسيل - وزارة الخارجية والمغتربين            |              |         |          |
| 21 | لبرت سرهان ـ وزارة العيل                           |              |         |          |
| 22 | مادي مهنا ـ وزارة الزراعة                          |              |         |          |
| 23 | مركليس الخوري وزارة الثقافة                        |              |         |          |
| 24 | طي الصمد - وزارة الثقافة                           |              |         |          |
| 25 | ليد تصر - هينة إدارة قطاع البترول                  | 3            |         |          |
| 26 | نامي عطائف المركز البذائي للدراسات                 |              |         |          |
| 27 | يلاد فخري - مركز علوم البحار                       | -            |         |          |
| 28 | ارال توتليان - إدارة الأحصاء المركزي               | -            |         |          |
| 29 | نوات البحرية ممرفا بيروث                           | 0            |         |          |
| 30 | ري ضاهر ، الجمارك الليذائية                        | 4            |         | _        |
| 31 | يرية القوحيه الجيش                                 | ia .         |         |          |
| 32 | معد خير - الهيئة العليا ثلاغاتة                    |              |         |          |

| Т  | لانحة أسماء (4-9-2019)                             | اسم المستلم     | التوقيع   | ئارىخ      |
|----|--|-----------------|-----------|------------|
|    | محمد شهاب الدين ـ المديرية العامة ا الطيران المدنى |                 |           |            |
| 2  | مارك و هيية العنيرية العامة ا الطير ان المدنى      |                 |           |            |
| 3  | جورج أيدا - وزارة العمل                            |                 |           |            |
| 4  | ناجى افدر اوس - وزارة الاتصالات                    | Amal Abou Rihan | ADR       | 04/09/201  |
| 5  | عبد الحفيظ القيسي - وزارة الاشغال                  |                 |           |            |
| 6  | حسن قريطم - مرفأ بيروت                             |                 | 115       |            |
| 7  | ندى سرتوك - وزارة السياحة                          | [elocale]       |           |            |
| 8  | وليد عسار - وزارة العسمة العانبة                   | 3               | 1 5       | 1.1.10     |
| 9  | عبد الله احمد - وزارة الشوون الاجتماعية            | کال هاری        | to        | 4/9/2019   |
| 0  | زاهي شاهين - سجلس الوزراء                          | )               |           |            |
| 1  | يعون خطار - الدفاع المدنى                          |                 | 4.0       | 1.10.10-15 |
| 12 | الى جدعون - وزارة الصناعة                          | ورزن مارله      | TEXEN.    | 4/9/2019   |
| 13 | لك شمض - وزارة النفاع الوطني                       |                 |           |            |
| 14 | عباس إبر اهيم ـ الأمن العلم                        | G-              |           |            |
| 15 | سك عثمان - قوى الأمن الداخلي                       | - 7             | 01-       | 11010 0    |
| 16 | ليا عيس - وزارة الاقتصاد والنجارة                  | كرينتي القشيره  | 1         | 4/9/2019   |
| 17 | ى يستاني - وزارة الطاقة والمياه                    | <u>u</u>        | 00 01-    |            |
| 18 | ان بيفائي - وزارة المائية                          | y 974           | Alie Auto |            |
| 19 | ي جروصاتي - وزارة البنة                            |                 | No.       | 4/9/19     |
| 20 | بران بلمول - وزارة الخارجية والمغتربين             | مادي دعبرل مير  |           | 4/4/       |
| 21 | رت سرحان - وزارة العدل                             | الير            |           |            |
| 22 | دي مهذا ، وزارة الزراعة                            | الله الله       |           |            |
| 23 | كيس الخوري - وزارة الثقافة                         | / A             |           | 4/9/201    |
| 24 | ي الصمد - وزارة اللقافة                            | فادبادلول ط     |           | - 4/9/201  |
| 25 | د نصر - هينة إدارة قطاع اليترول                    | وليد            |           |            |
| 26 | مي عطالف للمركز البنائي الدراسات                   | alu-            |           |            |
| 27 | الد فخري - مركز علوم البحار                        |                 |           |            |
| 28 | ال توشيان - إدارة الأحصاء المركزي                  | مار             |           |            |
| 29 | ات البحرية -مرفا بيروث                             | القوا           | 2         | 7 7919 7   |
| 30 | ي ضاهر - الجمارك اللبدانية                         | نادق کا ماد     | -         | 1 1997     |
| 31 | ية التوجيه، الجيش                                  | مدير            |           |            |
| 32 | د خير - الهونة العليا للإعاثة                      | 434             |           |            |

|    | لانحة أسماء (4-9-2019)                             | اسم المسئلم         | التوقيع | تاريخ     |
|----|--|---------------------|---------|-----------|
| 1  | محمد شهاب الدين - المديرية العامة ا الطيران المدني |                     |         |           |
| 2  | مارك وهيبة المديرية العامة االطيران المدني         |                     |         |           |
| 3  | جورج أيدا - وزارة العمل                            |                     |         |           |
| 4  | ناجي اندر اوس - وزارة الانصالات                    |                     | 1       |           |
| 5  | عبد الحفيظ القيسي - وزارة الاشغال                  | per ul              | -41     | SAGE      |
| 6  | حسن قريطم - مرفأ بيروت                             | Jew &               | SARK    | 4-9-2019  |
| 7  | ندى سردوك ، وزارة السياحة                          |                     |         |           |
| 8  | وليد عمل - وزارة الصحة العامة                      | sef ine             | les -   | 4.9 201   |
| 9  | عبد الله احمد ، وزارة الشوون الاجتماعية            |                     |         |           |
| 10 | زاهي شاهين - مجلس الوزراء                          | مؤهلال نبعدر        | DAD     | 4-92019   |
| 11 | ريعون خطار - الدفاع المدنى                         | gies is Este        | 4979    | alya/ E   |
| 12 | داتي جدعون - وزارة الصناعة                         | C                   |         | 1         |
| 13 | مالك شمص - وزارة الدفاع الوطني                     |                     |         |           |
| 14 | عياس إبر اهيم - الأمن العام                        |                     |         |           |
| 15 | عماد عثمان - قوى الأمن الداخلي                     |                     |         |           |
| 16 | عليا عباس ، وزارة الاقتصاد والتجارة                |                     |         |           |
| 17 | تدي بسكاني - وزارة الطاقة والمياه                  | Varther Alchargalia | 100     | 4-9-20    |
| 18 | ألان بيفاتي . وزارة المالية                        | U                   |         |           |
| 19 | فادي جريصائي - وزارة البئة                         |                     |         |           |
| 20 | جبران باسيل - وزارة الخارجية والمغتربين            |                     |         |           |
| 21 | اليرث سرحان - وزارة العدل                          |                     |         |           |
| 22 | شادي مهنا - وزارة الزراعة                          |                     |         |           |
| 23 | سركيس الخوري - وزارة الثقافة                       |                     |         |           |
| 24 | على الصمد - وزارة الثقاقة                          |                     | - 1     |           |
| 25 | وليد لصر - هيئة ادارة قطاع البترول                 | Teiner mindon       | 2 elis  | 49 201    |
| 26 | سامي عطائف المركز البنائي للدراسات                 |                     |         |           |
| 27 | ميلاد قغزي - مزكز علوم البمار                      | ریب فردس            | -57     | C.19/9/9  |
| 28 | مار ال توثليان - إدارة الأحصاء المركزي             |                     |         |           |
| 29 | القوات البحرية مرفا بيروت                          | 12/2-1-2/1          |         | CTV       |
| 30 | يتري ضباهر - الجمارك الليذانية                     |                     |         |           |
| 31 | مثيرية التوجيه للجيش                               |                     |         |           |
| 32 | محمد خير - الهيئة العليا ثلاغاتة                   | رنا یورے            | ن لوست  | 7 4/2/2/8 |

| $\top$ | لانحة أسماء (4-9-2019)                             | اسم المستلم    | التوقيع | تاريخ     |
|--------|--|----------------|---------|-----------|
| 1      | محمد شهاب الدين - المديرية العامة ا الطيران المدني |                |         |           |
| 2      | مارك وهيبة المديرية العامة االطيران المدني         |                |         |           |
| 3      | جوزج أيدا - وزارة العمل                            |                |         |           |
| 4      | ناجي اندر اوس - وزارة الانصالات                    |                |         |           |
| 5      | عبد الحفيظ القيمي - وزارة الاشغال                  |                |         |           |
| 6      | حسن قريطم - مرفأ بهروت                             |                |         |           |
| 7      | ندى سرنوك - وزارة السياحة                          |                |         |           |
| 8      | ولميد عمار - وزارة الصحة العامة                    |                |         |           |
| 9      | عبد الله احمد - وزارة الشوون الاجتماعية            |                |         |           |
| 10     | زاهي شاهين - مجلس الوزراء                          |                |         |           |
| 11     | ريمون خطار - الدفاع المدنى                         |                |         |           |
| 12     | دائي جدعون - وزارة الصناعة                         |                |         |           |
| 13     | مالك شمص - وزارة الدفاع الوطني                     |                |         |           |
| 14     | عبداس إير اهيم - الأمن العام                       |                |         |           |
| 15     | عماد عثمان ـ قوى الأمن الداخلي                     |                |         |           |
| 16     | عليا عباس ـ وزارة الاقتصاد والتجارة                |                |         |           |
| 17     | ندى بسئائي - وزارة الطاقة والمياه                  |                |         |           |
| 18     | ألان بيغاني - وزارة المالية                        |                |         |           |
| 19     | فادي جريصائي - وزارة البنة                         |                |         |           |
| 20     | جبران باسيل - وزارة الخارجية والمغتربين            |                |         |           |
| 21     | للبرت سرحان - وزارة العدل                          |                |         |           |
| 22     | شادي مهذا - وزارة الزراعة                          |                |         |           |
| 23     | سركيس الخوري - وزارة الثقافة                       |                |         |           |
| 24     | على الصمد - وزارة الثقافة                          |                |         |           |
| 25     | إليد نصر - هيئة إدارة قطاع البترول                 | ,              | 0.4010. | 11.0 - 10 |
| 26     | دامي عطالف المركز البذائي للدراسات                 | Suzan M. Steir | Soller  | 4-9-2019  |
| 27     | يلاد فخري - مركز علوم البحار                       |                |         | 19/115    |
| 28     | ارال توثليان - إدارة الأحصاء المركزي               | عايه درد       | 10      | c.19/9/2  |
| 29     | قوات البحرية - مرفأ بيروت                          | h              |         |           |
| 30     | ري ضاهر - الجمارك اللبنائية                        | 4              |         |           |
| 31     | ديرية التوجيه-الجيش                                | 4              |         |           |
| 32     | حمد خير - الهونة العليا للإغاثة                    | 4              |         |           |

|    | لانحة أسماء (4-9-2019)                             | اسم المسئثم | التكوفيع | تاريخ     |
|----|--|-------------|----------|-----------|
| 1  | محمد شهاب الدين - المديرية العلمة ا الطيران المدنى | لولف إيرام  | Youth 1  | 01/9/8    |
| 2  | مارك و هبية -المديرية العامة ا الطيران المدني      | 20 25 0,5   | 1        | <119/9/E  |
| 3  | جورج آيدا - وزارة العمل                            |             |          |           |
| 4  | تاجي التراوس - وزارة الاتصالات                     |             |          |           |
| 5  | حبد الحفيظ القيمسي - وزارة الاشغال                 |             |          |           |
| 6  | حسن قريطم - مرفا بيروت                             |             |          |           |
| 7  | ندى سردوك - وزارة السياحة                          |             |          |           |
| 8  | ولليد عسار ، وزارة الصنحة العامة                   |             |          |           |
| 9  | عيد الله احمد - وزارة الشوون الاجتماعية            |             |          |           |
| 10 | زاهي شاهين - مجلس الوزراء                          |             |          |           |
| 11 | ريمون خطش - الدفاع المدنى                          |             |          |           |
| 12 | داني جدعون - وزارة الصناعة                         |             | ,        |           |
| 13 | مالك شمص - وزارة الدفاع الوطني                     | clow introd | 1        | C. 19/9/8 |
| 14 | عياس أبر أهيم - الأمن المعلم                       |             |          |           |
| 15 | عماد عثمان - قوى الأمن الداخلي                     |             |          |           |
| 16 | عليها عباس - وزارة الاقتصاد والتجارة               |             |          |           |
| 17 | ندى يستاني - وز أبرة الطاقة والمياه                |             |          |           |
| 18 | ألان بيغاني - وزارة المالية                        |             |          |           |
| 19 | قادي جريصـاتـي ـ وزارة البنة                       |             |          |           |
| 20 | حبران باسيل - وزارة الخارجية والمعتربين            |             |          |           |
| 21 | اليرت سزحان - وزارة العدل                          |             |          |           |
| 22 | شادي مهذا - وزارة الزراعة                          |             |          |           |
| 23 | سركيس الخوري - وزارة الثقافة                       |             |          |           |
| 24 | على الصمد ، وزارة الثقافة                          |             |          |           |
| 25 | وليد نصر - هيئة إدارة قطاع البئرول                 |             |          |           |
| 26 | سامي عطاالله - المركز الميذاني للدراسات            |             |          |           |
| 27 | ميلاذ فخري - مركز علوم البحار                      |             |          |           |
| 28 | مارال توتليان - إدارة الأحصاء المركزي              |             |          |           |
| 29 | لقوات البحرية - مرفأ بيروت                         | 1           |          |           |
| 30 | دري ضاهر - الجمارك الليذائية                       | ?           |          |           |
| 31 | ديرية التوجيه الجيش                                | ذبار حتے .  | c fe     | 5. M(9/5  |
| 32 | حمد خبر - الهيئة العليا للإغاثة                    | 4           | /        |           |

| 2  | لانحة أسماء (4-9-2019)                             | امح المستلم | التوقيع      | تاريخ   |
|----|--|-------------|--------------|---------|
| 1  | محمد شهاب الدين - المديرية العامة ا الطيران المدني |             |              |         |
| 2  | مارك وهبية المديرية العامة الطيران المتنى          |             |              |         |
| 3  | جورج أيدا - وزارة العمل                            | 2           | yolfa Mooler | 4/9/201 |
| 4  | ناجي اندر اوس - وزارة الانصالات                    |             |              |         |
| 5  | عبد الحفيظ القيسي - وزارة الاشغال                  |             |              |         |
| 6  | حسن قريطم - مرفا بيروث                             |             |              |         |
| 7  | ندى سرئوڭ - وزارة السياحة                          |             |              |         |
| 8  | وليد عمار - وزارة الصحة العامة                     |             |              |         |
| 9  | عبد الله احمد - وزارة الشوون الاجتماعية            |             |              |         |
| 10 | زاهي شاهين - مجلس الوزراء                          |             |              |         |
| 11 | ريمون خطار - الدفاع المدني                         |             |              |         |
| 12 | دالى جدعون ، وزارة الصناعة                         |             |              |         |
| 13 | مالك شمص - وزارة الدقاع الوطني                     |             |              |         |
| 14 | عباس إبراهيم - الأمن العلم                         |             |              |         |
| 15 | عمك عثمان ـ قوى الأمن الداخلي                      |             |              |         |
| 16 | عليا عباس - وزارة الاقتصاد والنجارة                |             |              |         |
| 17 | لدى بستائي ، وزارة الطاقة والمياه                  |             |              |         |
| 18 | ألان بيغاني - وزارة المالية                        |             |              |         |
| 19 | فادي جريصاتي - وزارة الينة                         |             |              |         |
| 20 | جير إن باسيل - وزارة الخارجية والمغتربين           |             |              |         |
| 21 | البرت سرحان - وزارة العدل                          | 614-65      |              | c.19/9/ |
| 22 | شادي مهذا ، وزارة الزراعة                          | المال مالال |              | C/9/9/  |
| 23 | سركيس الخوري - وزارة الثقافة                       |             |              | / /     |
| 24 | على الصمد - وزارة الثقافة                          |             |              |         |
| 25 | وليد نصر - هيئة ادارة قطاع البترول                 |             |              |         |
| 26 | سامي عطالفه ـ المركز اليناني للدراسات              |             |              |         |
| 27 | ميلاد فغري - مركز علوم البحار                      |             |              |         |
| 28 | مار ال توثلهان - إدارة الأحصاء المركزي             |             |              |         |
| 29 | القوات البحرية -مرفا بيزوت                         |             |              |         |
| 30 | يدري ضاهر - الجمارك اللبنائية                      |             |              |         |
| 31 | مديرية التوجيه الجيش                               |             |              |         |
| 32 | محمد خير - الهيئة العليا للإعاثة 🔻 🗙               |             |              |         |





[This page has intentionally been left blank.]

### **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 3.18 Disclosure Phase TOTAL Presentation

80754









[This page has intentionally been left blank.]







# مجموعة توتال

- لاعب رئيسي في مجال الطاقة
- منتج وموزع للمنتجات النفطية والغاز والكهرباء
  - يوظف حوالي مائة ألف شخص في ١٣٠ بلد



App 3.18-2

## ميثاق السلامة والصحة والبيئة والجودة لمجموعة توتال



«تضع شركة توتال في قمة الأولوية السلامة، الأمن، الصحة، احترام البيئة، رضا الزبائن، والاستماع والحوار مع كافة الجهات المعنية.»

ميثاق السلامة والصحة والبيئة والجودة لمجموعة توتال ممضي من قبل مديرها العام باتريك بوياتيه، كانون الأول/ديسمبر 2014

# سياسة الصحة والسلامة والبيئة لشركة توتال

- و لا تساوم مجموعة توتال وشركة توتال للاستكشاف والإنتاج لبنان عندما يتعلّق الأمر بالصحة والسلامة والبيئة والجودة.
  - ومن أجل بلوغ معاييرنا، نحرص على:
- الحفاظ على تدخل الإدارة في جميع المسائل المتعلقة بالصحة والسلامة والبيئة على نحوٍ قوي وداعم وواضح، ونشر مبادئ الصحة والسلامة والبيئة بوصفها فيمة رئيسية في عملنا.
  - الامتثال للقوانين والأنظمة الوطنية ولسياسات مجموعة توتال.
- الحفاظ على الثقافة التي تجعل كلّ شخص يدرك بوضوح مسؤولياته في مجال الصحة والسلامة والبيئة، ويتصرّف بما يتوافق مع قواعدنا الذهبية.
  - وضع أهداف ثابتة وقابلة للقياس في مجال الصحة والسلامة والبيئة ومؤشر ات أداء رئيسية في سبيل قياس أدائنا وتحسينه.
  - إجراء تقييمات ملائمة في مجال الصحة والسلامة والبيئة من أجل تحديد وتخفيف وإدارة المخاطر التي يتعرّض لها الموظفون والبيئة.
    - التخطيط و الإشراف على تنفيذ جميع أنشطتنا مع مراعاه النواحي المتعلقة بالصحة والسلامة والبيئة كأولوية قصوى.
- اختيار الشركاء في قطاعَيْ الصناعة والأعمال بناء على نظام إدارة الصحة والسلامة والبيئة المعتمد لديهم وبناء على قدرتهم على الامتثال لسياستنا المعنية بالصحة والسلامة والبيئة.
  - تعزيز التزامنا بحوار مفتوح وصادق وطويل الأجل مع أصحاب المصلحة الذين نتعامل معهم.
    - ويما أن شركتنا تتحلّى بالمسؤولية والأمانة،
- سنعمل بوصفنا جزءاً لا يتجزّأ من المجتمع اللبنائي من أجل تحقيق التحمّن المستمرّ والاستدامة في مجال الصحة والسلامة والبيئة،
   والجودة.
- ونعتبر أن أداء كل شخص يعمل معنا أو لصالحنا وفقاً لأعلى معايير الصحة والسلامة والبيئة ضروري لنجاح عملنا. ولذلك، نتوقع أن يشاركنا مزودونا وشركاؤنا القيم والأهداف نفسها.



App 3.18-4

# تعهد شركة توتال للحفاظ على البيئة والمجتمع

طموحنا هو أن نبقى الشركة الكبرى المسؤولة على صعيد البيئة والخدمات الاجتماعية حيال:

- الدولة المُضيفة
  - شركاؤنا
- المجتمع المدني، حاملي الأسهم، زبائننا
  - موظفینا (من خلال التحفیز)

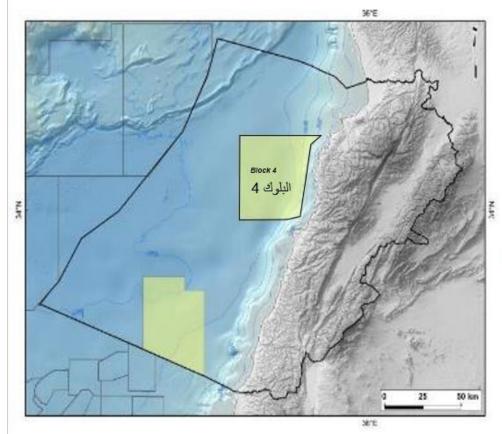


عرض مشروع البلوك 4 - الجلسة الاستشارية العامة - 19-20 أيلول سبتمبر 2019





# لمحة عامة عن المشروع



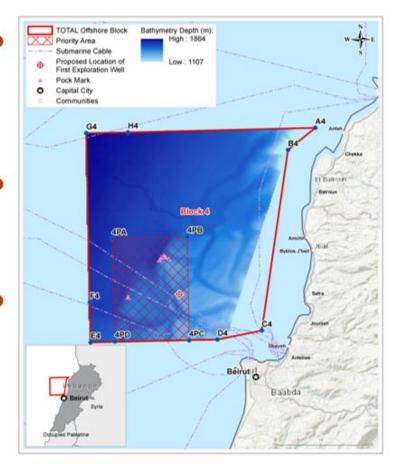
• تعتزم شركة توتال للاستكشاف والإنتاج - لبنان إجراء أعمال حفر استكشافي في لبنان في البلوك البحري 4 (الرقعة رقم 4) بدءًا من نهاية عام 2019.

يقع البلوك 4 في الحوض الرسوبي المشرقي قبالة ساحل لبنان الشمالي، وتبعد حدوده الشرقية 6 كلم (أي 3.2 ميل بحري) تقريباً عن اقرب نقطة على الشاطئ. ويغطي البلوك مساحة 1911 كلم² ويتراوح عمق المياه فيه بين 320 متراً.

عرض مشروع البلوك 4 - الجلسة الاستشارية العامة - 19-20 أيلول سبتمبر 2019



# لمحة عامة عن المشروع



- تشمل أعمال الحفر المقترحة بئر استكشافي أول (مؤكد)، وبئر استكشافي ثاني مُحتمل، وبئر تقييمي مُحتمل (تبعًا لنتائج البئريْن الاستكشافيَيْن السابقَيْن).
- ستكون كل الآبار المحفورة في هذه المرحلة الاستكشافية ضمن منطقة التركيز (Priority Area).
- من المخطّط البدء بحفر البئر الاستكشافي الأوّل (1-B4) في كانون الأوّل/ديسمبر 2019.



8

# شركة توتال للاستكشاف والإنتاج - لبنان: شركاؤنا

الشركاء في البلوك 4:

- · TOTAL توتال 40% المشغِّل
- O الوكالة الوطنية للمحروقات «إني» (الإيطالية) 40%
  - o Movatek شركة نوفاتك (الروسية) 20%



عرض مشروع البلوك 4 \_ الجلسة الاستشارية العامة \_ 19-20 أيلول سبتمبر 2019

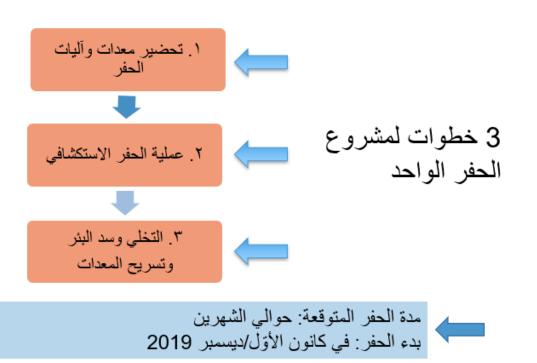
TOTAL



# عملية الاستكشاف والإنتاج

### الهدف من الحفر الاستكشافي

التأكد من نتائج الحملة الزلزالية ومن وجود الهيدروكربونات ومن بعدها تقييم الإمكانات التجارية.



عرض مشروع البلوك 4 ــ الجلسة الاستشارية العامة ــ 19-20 أيلول سبتمبر 2019





# اختيار منصة الحفر



تثبيت المنصة من خلال التمركز الديناميكي

- المحافظة على التمركز دون اعتماد مرساة
- استعمال محركات يتم التحكم بها من قبل الاقمار الاصطناعية عبر نظام تحديد المواقع

عرض مشروع البلوك 4 ــ الجلسة الاستشارية العامة ــ 19-20 أيلول سبتمبر 2019



# الأنشطة الرئيسية للحفر الاستكشافي

- ثقام وحدة حفر متنقلة في البحر (MODU) في البلوك 4
- يتمّ حفر البئر 1-B4 بشكل شبه عمودي على بُعد حوالي 20 كلم من الشاطئ وعلى مسافة 1520 مترًا في المياه
  - الخرّ إن المُستهدَف هو خرّان غاز ويقع على عمق حو الى 4400 متر دون متوسلط مستوى سطح البحر
- يستمرّ برنامج الحفر للبئر 1-B4 للحوالي 60 يومًا (ومن المتوقّع أنّ عمليات الحفر للآبار اللاحقة ستستغرق المدّة نفسها تقريبًا)
  - يتم إجراء عملية الرصد للبئر من أجل تقييم التكوينات الجيولوجية التي تخترقها حفرة البئر
  - لن يتم إجراء اختبار للبئر 1-B4 (لكن قد يكون هذا الخيار واردًا لأي بئر تقييمي في المستقبل)
- إمكانية إجراء المسح الزلزالي العمودي في موقع البئر من أجل الحصول على بيانات جيو لوجية عالبة الدقّة عن الطبقة التحتية
- يتم سد الأبار وتركها بعد الحفر





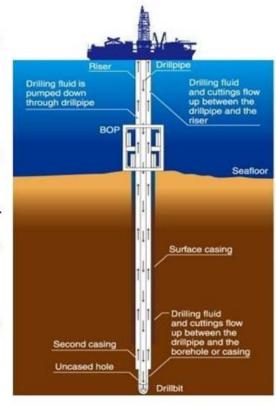
App 3.18-14

# الأنشطة الرئيسية للحفر الاستكشافي

- الطبقات العليا (يتم حفرها من دون أنبوب صاعد):
- يتمّ حفر أوّل طبقتَيْن من البئر باستخدام نظام قائم على المياه البحرية (بالإضافة إلى المسح الهُلامي وطين المنصّة) يتمّ تفريغ العينات الفتاتية والسوائل في قاع البحر
- الطبقات الدنيا (تركيب الأنبوب الصاعد واختبار مانع الانفجار – انظر الرسم)

خياران بالنسبة إلى استخدام سائل الحفر:

- الخيار الأول (الأساسي): استخدام سائل حفر غير مائي –
   احتواء العينات الفتاتية وسوائل الحفر المرتبطة بها وشحنها إلى
   الشاطئ لمعالجتها والتخلص منها
- الخيار 2: استخدام سائل حفر مائي عالي الأداء تصريف العيّنات الفتاتية في البحر من وحدة الحفر المتنقلة بعد استرداد سوائل الحفر باستخدام معدّات ضبط المواد الصلبة على متن وحدة الحفر المتنقلة





# أعمال الدعم

- يتم دعم عمليات الحفر من خلال قاعدةٍ لوجستية ضمن مرفأ بيروت. وتشمل المرافق ما يلي:
  - واحة أنابيب
    - مخازن
- رصيف مع مساحة لتخزين وتجميع المعدّات والمواد،
   ور افعات متنقّلة
  - محطّة خلط سوائل الحفر وتخزين سوائل الحفر
- مساحات مخصتصة للمكاتب والمقصف والمركبات ومساحات الفرز وحاويات الشحن ومناطق لنقل و عبور النفايات
- يتم استخدام ثلاث بواخر للتموين باخرة في موقع الحفر بشكل دائم لتوفير الإشراف الأمني، وباخرتان لنقل المواد والمعدّات والنفايات بين وحدة الحفر المتنقّلة والقاعدة اللوجستية
- قد يتم نقل فِرَق العمل من/إلى مطار رفيق الحريري الدولي بواسطة طائرتَيْ هليكوبتر في حال تمت الموافقة على ذلك (ومن الممكن أيضًا تبديل فِرَق العمل بواسطة المراكب كحلّ بديل).

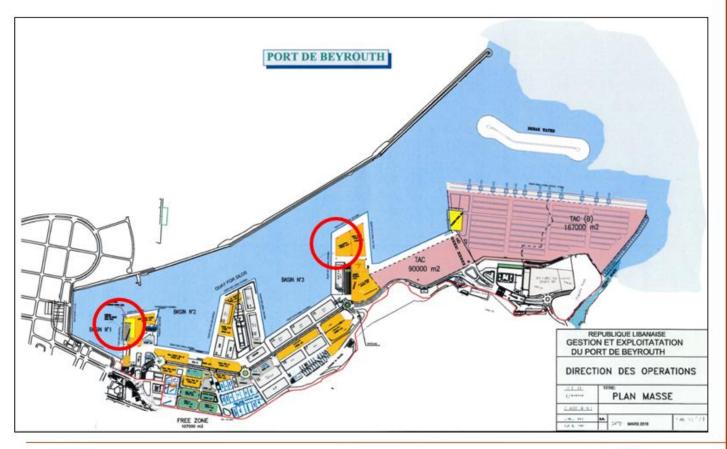






App 3.18-16

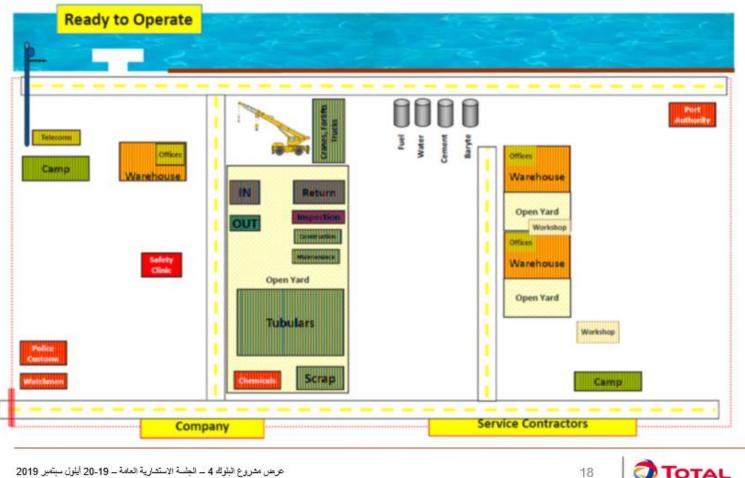
# القاعدة اللوجستية في مرفأ بيروت



عرض مشروع البلوك 4 - الجلسة الاستشارية العامة - 19-20 أيلول سبتمبر 2019

TOTAL

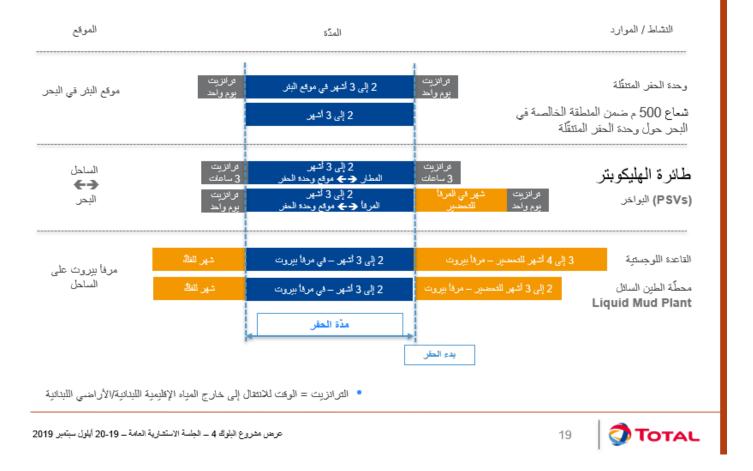
# تصميم نموذجي - القاعدة اللوجستية



عرض مشروع البلوك 4 ــ الجلسة الاستشارية العامة ــ 19-20 أيلول سبتمبر 2019

TOTAL

# الجدول الزمني





# الخطط والدراسات الرئيسية المتعلّقة بالصحة والسلامة والمجتمع والأمن والبيئة (HSSSE)

### • السلامة

- نظام الإدارة المعنى بالصحة والسلامة والبيئة / الخطة المعنية بالصحة والسلامة والبيئة
  - تقييم المخاطر
  - خطط الطوارئ

## • البيئة والمجتمع

- الدراسة البيئية الأساسية
- الدراسة الاجتماعية الأساسية
- تقييم الأثر البيئي والاجتماعي
- خطط الإدارة البيئية والاجتماعية

### • الأمن

- الخطط الأمنية

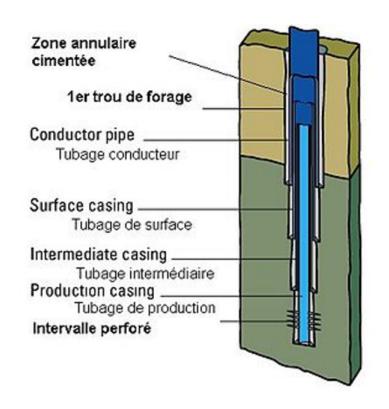




### 1. PRÉSENTATION DU PROJET ET DU PROMOTEUR

### Phase de forage

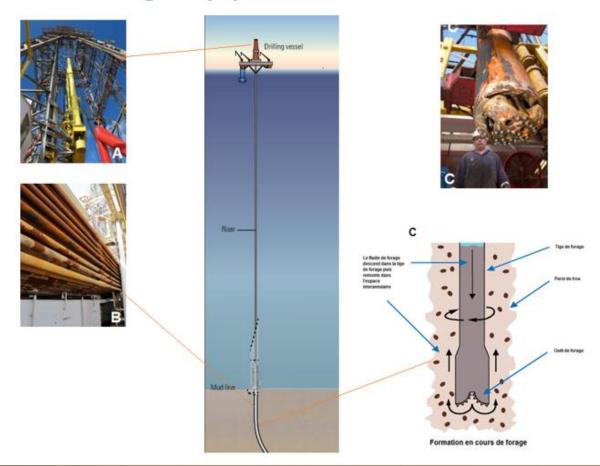
- Tour de forage (derrick) = mât servant à descendre le train des tiges de forage + trépan pour forer le sous-sol marin
- Circulation en continu (circuit fermé) du fluide de forage pour équilibrer la pression et remonter les déblais
- Consolidation par tubage du trou foré, puis cimentation pour assurer la cohésion entre le terrain et le tube
- Système de traitement des boues de forage
- Groupes électrogènes et équipements de manutention



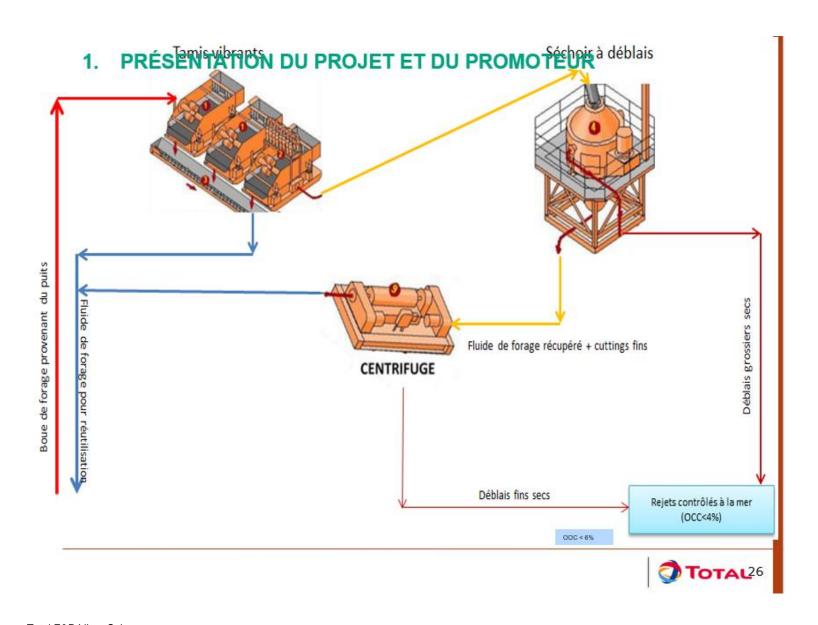


### 1. PRÉSENTATION DU PROJET ET DU PROMOTEUR

# Phase de forage : équipements







### 1. PRÉSENTATION DU PROJET ET DU PROMOTEUR

### Phase de démobilisation

- Terminaison du forage (mise en place de bouchons en ciments; la tête de puits reste en place)
- Démobilisation et évacuation de tous les équipements
- Traitement des déchets
- Déplacement du navire de forage vers sa nouvelle affectation





# العمليات اللازمة من أجل حفر بئر استكشافي

**1700 ~** 

~ 15 شهراً

م 25 عقداً





~ 230 شخصاً







عرص مشروع البلوكيُّن 4 و9 ــ الجلسة الاستصارية العامة ــ 24 أيار/مايو 2019

TOTAL

### **CLICK TO ADD TITLE**







































Titre de la Présentation - Lieu et Pays - Date Jour Mois Année



### **CLICK TO ADD TITLE**

# Nature de l'activité : Forage d'exploration

**⇒**Aucune production d'hydrocarbures





عرص مشروع البلوك 4 - الجلسة الاستشارية العامة - 19-20 أيلول سبتمبر 2019







[This page has intentionally been left blank.]

### **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 3.19 Disclosure Phase Public Consultation Presentation

80754









[This page has intentionally been left blank.]



# اجتماع المشاورات العامة أيلول/سبتمبر 2019









# فريق تقييم الأثر البيئي

الشركة الدولية المسؤولة عن تقييم الأثر البيئي: RSK

> الاستشاري المحلّي: DAR

### فريق المسح الميداني البيئي

الاستشاري الدولي: Creocean

استشاري محلّي: Keran Liban

استشاري محلى: "الأرض للتنمية المتطورة للموارد"

فريق جمع البيانات الاجتماعية

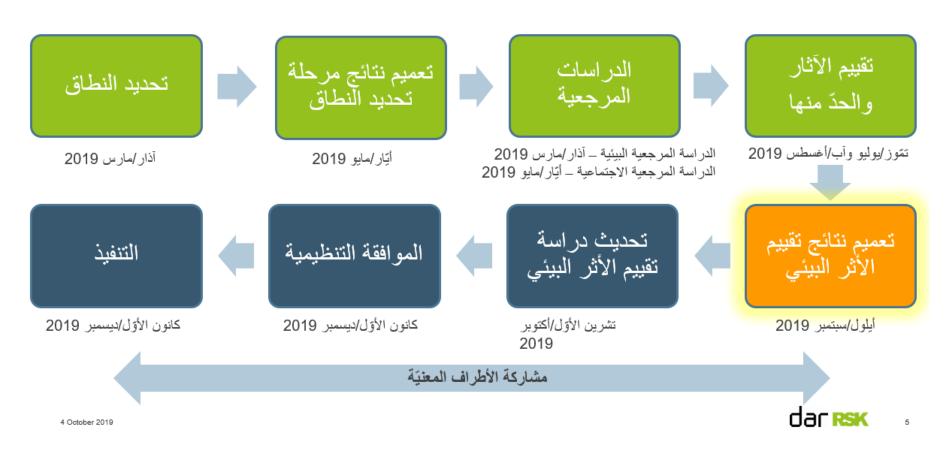
استشاري محلّي فرعي: INFOPRO







# عملية تقييم الأثر البيئي



# مراجعة الإطار التشريعي



# مراجعة الإطار السياساتي والقانوني والإداري

يتمّ تنفيذ برنامج الحفر الاستكشافي في البلوك 4 (الرقعة 4) وفقًا للشروط البيئية والاجتماعية المنصوص عليها في:

- السياسات والتشريعات والأنظمة والمبادئ التوجيهية الوطنية؛
  - المعاهدات والاتفاقات الدولية المرعية؛
    - الشروط الخاصة بشركة TOTAL؛
  - الممار سات الجيدة المُتعارَف عليها دو ليًا.

daresk

# التشريعات الوطنية الأساسية

| العنوان   | القانون                                       |
|---|---|
| قانون الموارد البترولية في المياه البحرية                                   | القانون رقم 132 تاريخ 2010                    |
| الأنظمة والقواعد المتعلقة بالأنشطة البترولية                                | المرسوم رقم ١٠٢٨٩ تاريخ ٢٠١٣                  |
| اتَّفاقية الاستكشاف و الإنتاج   | الملحق رقم ٢ التابع للمرسوم رقم ٤٣ تاريخ ٢٠١٧ |
| قانون حماية البيئة  | القانون رقم ٤٤٤ تاريخ ٢٠٠٢                    |
| أصول تقييم الأثر البيئي   | المرسوم ٨٦٣٣ تاريخ ٢٠١٢                       |
| آلية مراجعة تقارير تحديد نطاق تقييم الأثر البيئي وتقارير تقييم الأثر البيئي | القرار ۲۲۱/۱ تاریخ ۲۰۱۰                       |
| دعم الشفافية في قطاع البترول  | القانون رقم 84 تاريخ 2018                     |
| قانون الحقّ في الوصول إلى المعلومات   | القانون رقم ۲۸ تاریخ ۲۰۱۷                     |

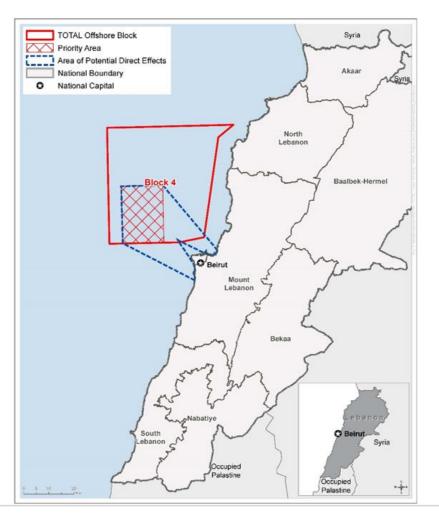
#### لوثائق الأساسية الأخرى:

- دراسة التقييم البيئي الاستراتيجي لأعمال التنقيب والإنتاج في البحر لبنان 2014 (تحديث العام 2019)؛
- "المبادئ التوجيهية لتقييم الأثر البيئي لعملية المسح الأوّلي للنفط والغاز وأحمال الحفر الاستكشافي في لبنان" (مسودّة العام 2019).

daresk

# الدراسات الوضع البيئي والإجتماعي الحالي المحيط بالمشروع







darrsk

10

# دراسات الوضع البيئي والإجتماعي الحالي المحيط بالمشروع

### دراسة الوضع االبيئى المحيط بالمشروع

الدراسة النظرية

### الدر اسة المبدانية:

- جمع البيانات الأولية
- دراسات المسح المرجعية : للمياه البحرية

### تقرير الدراسة المرجعية البيئية:

- وصف السياق
- تحديد النقاط والمسائل الحساسة

### دراسة الوضع الاجتماعي المحيط بالمشروع

الدراسة النظرية

خطّة مشاركة الأطراف المعنيّة

### العمل الميداني:

- جمع البيانات الأولية
- مشاركة الأطراف المعنيّة على المستوى المحلّى

### تقرير الدراسة المرجعية الاجتماعية:

- وصف السياق
- تحديد النقاط والمسائل الحساسة



# الأهداف والمنهجية - دراسات الوضع البيئي الحالى المحيط بالمشروع



### أهداف الدراسة:

- دراسة غنى المنطقة وتنوعها البيولوجي قبل مشروع الحفر
- تقييم مستوى التلوث قبل المشروع أو مستوى تدهور البيئة الطبيعية (في حال كان ذلك بنطبق)
  - إعداد خارطة المناطق الحسّاسة التي يجب الحفاظ عليها (تفادي الحفر فيها)

### عملية جمع العينات تتألف من:

- 29 محطّة لجمع عينات الرواسب من أجل التحليل الفيزيائي-الكيميائي وتحليل الأحياء الحيوانية
- 4 محطّات للمياه البحرية من أجل التحليل الفيزيائي-الكيميائي وتحليل الأحياء الحيوانية
  - 14 خطًا عرضيًا للتسجيلات بالفيديو والصور
    - مر اقبة الحبو انات الكبير ة الحجم

### الجدول الزمني

- المهمة من 20 آذار /مارس إلى 11 نيسان/أبريل
  - تة تقديم التقرير في تموز /يوليو

darrsk

# النتائج الرئيسية - دراسات الوضع البيئي الحالي المحيط بالمشروع

الأسماك الشائعة على قاع البحر الموحِل



سلطعون بالقرب من منطقة صخرية







المياه

- قليلة المغذّيات
- لا قياس للملؤثات

#### الرواسب

- محتوى عضوي قليل
  - لا قياس للملؤثات
- قاع البحر فقير بالحيوانات بطبيعته

#### مراقبة قاع البحر بالقيديو

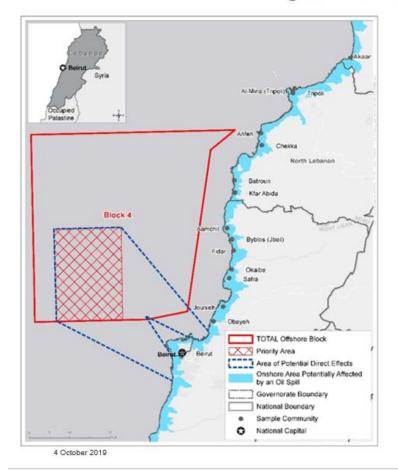
- فقير في معظم الأماكن (مسطّح وموحِل)
- غني في مواقع محدودة جدًا (المنخفضات)
  - نفایات کثیرة جدًا

#### مراقبة الحيوانات الكبيرة الحجم

- الحيو انات الكبيرة الحجم قليلة جدًا
  - مطابق لتحليل البيانات

dar RSK

#### الأهداف والمنهجية - دراسات الوضع الإجتماعي الحالي المحيط بالمشروع



#### أهداف المسح الاجتماعي:

- فهم سياق التراث الاجتماعي والاقتصادي والثقافي الذي ستتم فيه الأنشطة البرية والبحرية المتعلقة بحفر الاستكشاف
- تحديد مستقبلات التراث الاجتماعي والاقتصادي والثقافي الحساسة المتعلقة بالآثار المحتملة لأنشطة حفر الاستكشاف
- تخدم بيانات خط الأساس للمقارنة المستقبلية مما يسمح بمراقبة دقيقة لأية تغييرات قد تحدث نتيجة للمشروع.

#### تتكون العينة من:

مقابلات مع مصادر المعلومات الرئيسية (29) مناقشات ضمن مجموعات مركزة (14) جمع البيانات على المستوى الوطني(17 مقابلة) أصحاب المصلحة (160 +)

#### الجدول:

جمع البيانات المحلية من 21 أيّار/مايو إلى 31 أيّار/مايو 2019 مهمة جمع البيانات الوطنية آب/أغسطس 2019



#### النتائج الرئيسية -دراسات الوضع الإجتماعي الحالي المحيط بالمشروع



بيبلوس RSK, 2019)



السياحة والأنشطة الترفيهية في أنفة 4 October 2019 (RSK, 2019)

مصايد الأسماك الحجم (6 أميال بحرية من الساحل) لا يوجد صيد في ميناء بيروت الشحن

ميناء بيروت محطة تجارية دولية مهمة عدد كبير من طرق الشحن على طول الحدود الجنوبية للبلوك 4

#### السياحة

مساّهمة كبيرة في الاقتصاد المحلي توجد المنتجعات الشاطئية والشواطئ ومواقع الاستحمام والمرافئ الترفيهية ومواقع الغوص على طول الساحل

#### الموارد الأثرية والثقافية

العديد من مواقع التراث الثقافي الهامة في المنطقة الساحلية موقع تراث عالمي وإحدى أقدم المدن المأهولة بالسكان في العالم بيبلوس : جبيل عام 3000يقايا ثقافية يعود تاريخها إلى أكثر من : انفة الجدار وبقايا المدرج الروماني الفينيقي العظيم: البترون

#### بنية تحتية

تز ايد عدد السكان وتدفق الأشخاص النازحين الذين يمارسون ضغوطاً على البنية التحتية المضطربة والشيخوخة بالفعل



#### المستقبلات البيئية

# خارطة حساسية قعر البلوك 4 (Creocean، 2019)

#### البيئة المادية:

- جودة الهواء: حساسية منخفضة
- جودة المياه: حساسية متوسيطة
- جودة/تكوين الرواسب: حساسية منخفضة

# Sensitivity map Sensitivity map of the seafloor on Block 4

Proposed Location of First Exploration Well

# البيئة البيولوجية:

قاع البحر: حساسية منخفضة

العوالق: حساسية منخفضة

الموائل الساحلية: حساسية مرتفعة

الموائل البحرية: حساسية مرتفعة

الأسماك: حساسية متوسيطة

الحيتانيات: حساسية متوسّطة

ز عنفيات الأقدام: حساسية مرتفعة

السلاحف: حساسية متوسطة

الطبور البحرية حساسية متوسيطة

التورس الأغيس (2019 ·Creocean)







سمكة التربيود (Creocean، 2019)

#### المستقبلات الاجتماعية - الاقتصادية

- التعليم والتدريب: حساسية منخفضة
- الاقتصاد العام والصناعة: حساسية منخفضة
- مصاید الأسماك وتربیة الأحیاء المائیة: حساسیة منخفضة
  - البنى التحتية: حساسية منخفضة
  - الظروف الاجتماعية: السلامة العامة والأمن: حساسية منخفضة
    - الصحة العامة: حساسية منخفضة
    - السياحة والترفيه: حساسية متوستطة
      - الشحن: حساسية متوستطة
    - الأثار والموارد الحضارية: حساسية متوسقة



جبيل (RSK، 2019)



البترون (RSK، 2019)



مطعم شي زخيا، عمشيت (RSK، 2019)

darrsk

17

# مشاركة الأطراف المعنية



بدأت عملية مشاركة الأطراف المعنية في حزيران ايونيو TOTAL مع الزيارة الأولية لشركة

واستمرّت مشاركة الأطراف المعنية طيلة المراحل التالية في المشروع



حلقة نقاش مع مجموعة من الصيّادين - العبده، عكّار (RSK)، 2019



حلقة نقاش مع مجموعة من الصيادين - شكا (RSK) (2019



حلقة نقاش مع مجموعة من النساء - جبيل (RSK) (2019)

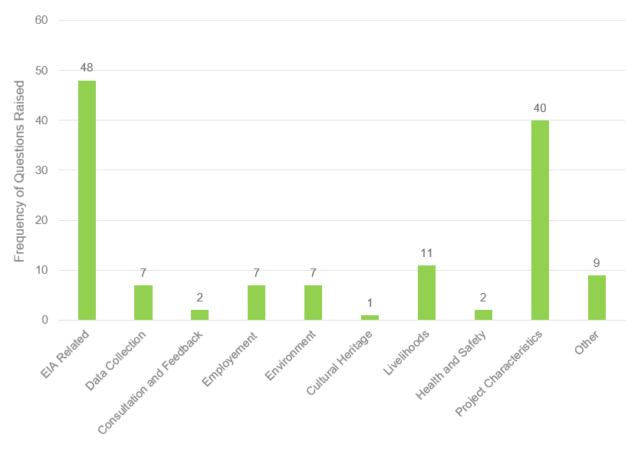


اجتماع مشاورات عامة (RSK، 2019)

darrsk

19

#### نتائج عملية مشاركة الأطراف المعنية





# تقييم الآثار والإجراءات التخفيفية



21

#### المقاربة

استندت دراسة تقييم الآثار إلى مقاربة منهجية تضمنت:

- تحديد أعمال المشروع (جوانبه) أو مصادر الآثار؛
- تحديد المُستقبِلات البيئية والاجتماعية (receptors)؛
  - تقييم آثار المشروع على هذه المستقبلات.

darrsk

22

# تصنيف أهمية الآثار

| 7                         |                        | Sensitivity rating   |                      |                              |                            |                      |
|---------------------------|------------------------|----------------------|----------------------|------------------------------|----------------------------|----------------------|
| الأهمية<br>Significance   |                        |                      | منعفض Very low جدًا  | منخفض Low                    | متوستط Medium              | مرتفع High           |
|                           |                        | ايجابي 0<br>Positive | 1                    | 2                            | 3                          | 4                    |
| تصنيف حجم<br>الآثار<br>80 | منخفض جدًا<br>Very low | 1                    | 1 ضئيل<br>Negligible | 2 ضئيل<br>Negligible         | 3<br>Minor طفیف            | 4<br>Minor طفیف      |
| Magnitude rating          | منخفض<br>Low           | 2                    | 2 ضئيل<br>Negligible | 4<br>Minor طفیف              | متوس <u>تط</u><br>Moderate | متوستط 8<br>Moderate |
|                           | متوسط<br>Medium        | 3                    | 3<br>Minor طفیف      | متوستط 6<br>Moderate         | متوسّط 9<br>Moderate       | 12<br>Major بالغ     |
|                           | مرتفع<br>High          | 4                    | 4<br>Minor طفیف      | متوس <u>ّط</u> 8<br>Moderate | 12<br>Major بالغ           | 16<br>Major بالغ     |

4 October 2019

App 3.19-23

#### تصنيف درجة أهمية الآثار

- يتم تصنيف الآثار المحتملة باستخدام هذه المنهجية
  - ثمّ تُطبّق الإجراءات التخفيفية
- ثمّ يُعاد تصنيف الآثار المتبقّية مع أخذ الإجراءات التخفيفية في الاعتبار
- قد تقتضي الآثار المتبقية الهامة (المتوسطة أو البالغة)
   اعتماد إجراءات تخفيفية أو تعويضية إضافية

تسلسل الإجراءات التخفيفية
تجنّب الآثار
Avoid

التقليل من الآثار

Minimise

المحلجة ال عربين الآثار

Restore

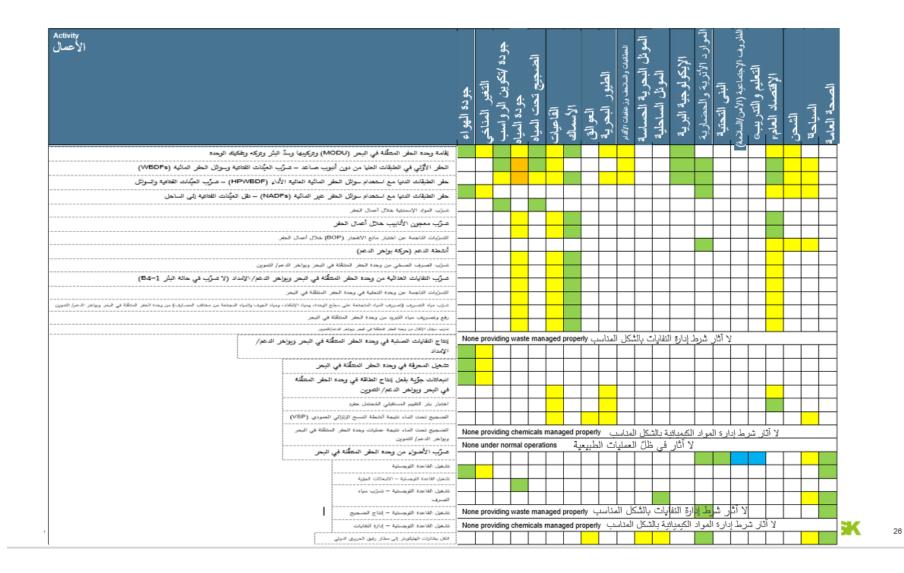
(Iffici

تتمّ دراسة الآثار العَرَضية بشكل منفصل عن الأعمال الروتينية المُخطَّط لها. ومن أجل تصنيف الحدث، يؤخذ في الاعتبار احتمال وقوعه.

daresk

#### أمثلة عن مصادر الآثار الروتينية المُحتمَلة





Total E&P Liban Sal App 3.19-26

#### ملخص آثار الأعمال الروتينية



# نظرة عامة-الآثار البيئية

| درجة الآثار المتبقية  | الإجراءات التخفيفية   | الآثار  |
|---|---|---|
| ضئيلة بالنسبة إلى جودة الهواء طفيفة بالنسبة إلى التغيّر المناخي               | <ul> <li>الالتزام بإتفاقية ماربول</li> <li>إجراءات كفاءة استخدام الوقود</li> <li>اعتماد إجراءات النقل الأمثل</li> <li>اختبار جيد التصريف والانبعاثات إلى</li> <li>أدنى حد ، وكفاءة رحلة مضيئة مختارة</li> </ul>   | آثار انبعاثات عوادم البواخر وطائرات<br>الهليكوبترو انبعاثات وحدة الحفر المتنقّلة<br>وآثار تشغيل المحرقة وآثار الاختبارات<br>المحتملة للبئر على جودة الهواء والتغير<br>المناخي |
| ضئيلة أثناء تجهيز وحدة الحفر المتنقّلة طفيفة أثناء تشغيل وحدة الحفر المتنقّلة | <ul> <li>اختيار أفضل مواقع للرسو</li> <li>المسح بواسطة مركبات مُشغَّلة عن بُعد</li> <li>(ROV)</li> <li>سوائل حفر بالخصائص التالية: نسبة سموم منخفضة، نسبة التراكم البيولوجي منخفضة، نسبة التراك مرتفعة</li> </ul> | آثار عملية الرسو وتحرّكات المراسي وتصريف العيّنات الفتاتية على جودة الرواسب والقاعيات   |

darrsk

# نظرة عامة-الآثار البيئية

| درجة الآثار المتبقية   | الإجراءات التخفيفية  | الآثار  |
|--|--|---|
| متوسيطة بالنسبة إلى جودة المياه من جرّاء تصريف العيّنات الفتاتية طفيفة بالنسبة إلى جودة المياه خلال عمليات التصريف الروتينية ضئيلة بالنسبة إلى جودة المياه عند القاعدة اللوجستية طفيفة بالنسبة إلى الأسماك ضئيلة بالنسبة إلى الأسماك ضئيلة بالنسبة إلى العوالق | <ul> <li>الالتزام بالاتفاقيات الدولية</li> <li>سوائل حفر بالخصائص التالية: نسبة سموم منخفضة، نسبة التراكم البيولوجي منخفضة، نسبة التحلّل الحيوي مرتفعة</li> <li>تصريف العيّنات من قطع المياه القائمة</li> </ul>  | التأثير المحتمل لتصريف العيّنات الفتاتية والتصريفات الناتجة عن العمليات الروتينية من وحدة الحفر المتنقّلة على جودة المياه وبالتالي على الأسماك والعوالق |
| طفيفة بالنسبة إلى الطيور البحرية والحيتانيات والسلاحف وزعنفيات الأقدام   | <ul> <li>كما ذُكِرَ سابقًا بالنسبة إلى جودة المياه</li> <li>تطبيق الاتّفاق المتعلّق بحفظ الحيتانيات         في البحر الأسود والبحر الأبيض         المتوسّط والمنطقة المتاخمة من المحيط         الأطلسي         الإضاءة الاتّجاهية         اعتماد إجراءات النقل الأمثل</li> </ul> | تأثير حركة البواخر والضجيج وانبعاثات الضوء والنقل بطائرات الهليكوبترعلى جودة المياه وعلى الطيور البحرية والحيتانيات والسلاحف وزعنفيات الأقدام           |

29

# نظرة عامة-الآثار البيئية

| الآثار  | الإجراءات التخفيفية   | درجة الآثار المتبقية   |
|---|---|--|
| تأثير الضجيج والانبعاثات في الجوّ<br>على الإيكولوجيا البرّية في منطقة<br>المرفأ وعلى طول طرق طائرات<br>الهليكوبتر | <ul> <li>وصد استهلاك الوقود</li> <li>صيانة جيّدة للمعدّات</li> <li>اعتماد إجراءات النقل الأمثل لطائرات</li> <li>الهليكوبتر</li> </ul> | ضئيلة بالنسبة إلى عمليات القاعدة اللوجستية طفيفة بالنسبة إلى عمليات النقل بواسطة طائرات الهليكوبتر |



| الآثار   | الإجراءات التخفيفية  | درجة الآثار المتبقية  |
|--|--|---|
|  |  |   |
| المتنقّلة وتأثير حركة المراسي أثناء التشغيل،   | <ul> <li>اختيار أفضل مواقع للرسو</li> <li>المسح بواسطة مركبات مُشغَّلة عن بُعد (ROV)</li> <li>لا توجد مواقع أثرية</li> </ul>   | ضئيلة بالنسبة إلى الموارد الأثرية والحضارية   |
| لبنى التحتية (الكابلات وخطوط الأنابيب للمرية). | <ul> <li>تجنّب الكابلات البحرية</li> <li>أرصفة مخصّصة لبواخر المشروع في القاعدة اللوجستية</li> <li>التنسيق والتواصل مع سلطات المرفأ</li> <li>الالتزام بحدود العمل وشروط الصحّة والسلامة والبيئة الخاصّة بالمرفأ</li> </ul> | ضئيلة بالنسبة إلى البنى التحتية (الكابلات وخطوط الأنابيب البحرية) ضئيلة بالنسبة إلى البنى التحتية |

darrsk

| درجة الآثار المتبقية                        | الإجراءات التخفيفية  | الآثار  |
|---|--|---|
| ضئيلة بالنسبة إلى الظروف الاجتماعية (الأمن) | <ul> <li>التعاون مع الأمن العام في المرفأ</li> <li>تقييم المخاطر الأمنية من خلال خطّة الأمن الخاصة بالمشروع</li> </ul>   | تأثير التدابير الأمنية المطلوبة في إطار عمليات القاعدة اللوجستية على الظروف الاجتماعية (الأمن)  |
| طفيفة بالنسبة إلى الصيد البحري              | <ul> <li>بدء التواصل والتنسيق من خلال جمعيات الصيد البحري في أسرع وقت ممكن</li> <li>نظام الشكاوى الخاص بالمشروع</li> <li>الالتزام باتفاقية ماربول</li> <li>الالتزام بالاتفاقيات الدولية</li> </ul> | التأثير على مصايد الأسماك من جرّاء<br>منطقة الأمان (500 م) أثناء تجهيز<br>وتشغيل وحدة الحفر والتصريفات أثناء<br>التشغيل والرصد الزلزالي العمودي |

dar RSK

| الآثار  | الإجراءات التخفيفية  | درجة الآثار المتبقية      |
|---|--|---------------------------|
| التأثير على الشحن من جرّاء تجهيز وحدة الحفر وتركيبها وتفكيكها وعمليات الحفر (بما في ذلك منطقة الأمان 500 م)   | <ul> <li>الالتزام بالشروط التنظيمية</li> <li>الالتزام بممرّات الشحن</li> <li>الالتزام باتفاقية الأمم المتحدة لقانون البحار</li> <li>التنسيق والتواصل مع سلطات المرفأ والموانئ</li> <li>البحرية</li> <li>إبلاغ البحارة</li> </ul> | طقيقة بالنسبة إلى الشحن   |
| امتناع الناس عن التردد إلى الشاطئ بسبب المنظر الناتج عن أعمال الدفر. تأثير حركة بواخر الدعم على البواخر السياحية الترفيهية والرحلات اليومية وأنشطة الغطس والصيد بالصنارة، وتأثير كل ذلك على السياحة | <ul> <li>التوقيت المُقترَح للبئر 1-B4 سيكون خارج موسم أنشطة السباحة وأنشطة الشاطئ</li> <li>التنسيق والتواصل مع سلطات المرفأ والموانئ البحرية</li> <li>إيلاع البحارة</li> </ul>   | طقيقة بالنسبة إلى السياحة |

dar RSK

| درجة الآثار المتبقية                               | الإجراءات التخفيفية  | الآثار   |
|--|--|--|
| ضئيلة بالنسبة إلى الصحة العامة                     | <ul> <li>الالتزام بالشروط التنظيمية</li> <li>الصيانة المنتظمة للمركبات</li> <li>تطبيق نظام الشكاوى</li> </ul>  | التأثير على الصحّة العامة من جرّاء الانبعاثات<br>في الجوّ والضجيج، الناتجة عن حركة<br>المركبات على البرّ   |
| مقيدة بالنسبة إلى التعليم والتدريب والاقتصاد العام | إجراءات تعزيز الفُرَص الإيجابية:  الإعلان عن الوظائف الشاغرة على الصعيد المحلّي  المحلّي  الالتزام بقوانين العمل المرعيّة  إعطاء الأولوية للسلع والخدمات اللبنانية | الأثار الإيجابية على التعليم والتدريب<br>والاقتصاد العام من جرّاء تشغيل القاعدة<br>اللوجستية وما يرتبط بها من فُرَص عمل<br>وتوفير السلع والخدمات |

dar **RSK** 





#### الخطط الفرعية والروابط

#### خطّة الإدارة البيئية والاجتماعية والخطط الفرعية

خطّة الإدارة البيئية والاجتماعية والخطط الفرعية ستشكّل القاعدة الأساسية لخطط الإدارة التالية والتفصيلية التي سيتم إعدادها وتنفيذها من قِبَل المقاول المسؤول عن وحدة الحفر وخدمات الحفر والبئر، والمقاول المسؤول عن القاعدة اللوجستية، والمقاول المسؤول عن بواخر الدعم/التموين، والمقاول المسؤول عن طائرات الهليكوبتر.

نظام إدارة الصحة والسلامة والبيئة الخاص بشركة TEP Liban خطّة الإدارة البيئية والاجتماعية سجل الالتزامات TEP Liban الخاصَّة بشركة TEP Liban **ESMP** الخطط الفرعية ضمن خطة الادارة البينية والاجتماعية خطّة إدارة المواد الكيميانية خطّة الوقاية من التلوّث والرصد البيني خطة الادارة الاجتماعية خطة مشاركة الأطراف المعنية نظام الشكاوي خطّة مكافحة التسرّب التقطى خطّة مكافحة انفجار الآبار خطة الاستجابة الطارنة خطّة سدّ البنر وتركه خطط المقاولين الخاصة بوحدة خطط المقاول للقاعدة خطط المقاول الخاصة ببواخر الحفر المتنقَّلة في البحر/الحفر اللوجستية التموين وطائرات الهليكويتر وخدمات البئر

dar

4 October 2019

App 3.19-36

#### سجل الالتزامات

في إطار عملية تقييم الأثار، تم تحديد "الالتزامات" المتعلّقة بالإجراءات التخفيفية الرئيسية التي تحدّ من شدّة الآثار أو تُقلّل من احتمال حدوثها.

يُعطى لكلّ التزام رمز تعريفي فريد، ويكون مرتبطًا بأنشطة المشروع والمُستقبِلات (receptors)، ويتمّ إدراجه ضمن إحدى الخطط الفرعية. بالإضافة إلى ذلك، يتمّ تحديد الجهة المسؤولة عن تنفيذ هذه الخطّة.

يمكن أيضًا متابعة ورصد تنفيذ الالتزامات.

| خطّة الصحّة<br>والسلامة والبيئة /<br>الخطّة الفرعية | 1 7   | الإجراءات التخفيفية   | المُستقبِلات<br>(Receptors)      | مراحل المشروع /<br>الأعمال / الجوانب   | مراجع الأقسام<br>ضمن دراسة تقييم<br>الآثار البيئية<br>والاجتماعية<br>(الرموز الخاصة<br>بجوانب المشروع) | الرمز التعريقي<br>الفريد |
|---|---|---|----------------------------------|--|--|--------------------------|
| خطَّة الصحّة<br>والسلامة والبيئة                    | المقاول المسؤول<br>عن الحفر؛ المقاول<br>المسؤول عن بواخر<br>التموين | تركيب شاشات عزل<br>مناسبة على مآخذ<br>مياه البحر ضمن<br>وحدة الحفر المتنقلة<br>لتجنّب سحب<br>النباتات والحيوانات<br>البحرية | جودة المياه؛<br>العوالق؛ الأسماك | رفع وتصريف مياه<br>التبريد من وحدة<br>الحفر المتنقّلة؛<br>عمليات وحدة الحفر<br>المتنقّلة | MAE12;<br>MAS02  | BIO 01                   |

# خلاصة دراسة تقييم الأثر البيئي



#### الخلاصة

- تقرير "تقييم الأثر البيئي" يتضمّن دراسةً منهجية للآثار البيئية والاجتماعية المرتبطة بأعمال الحفر الاستكشافي في الرقعة 4 (البلوك 4).
- برنامج الحفر للبئر 1-B4 يستغرق حوالى 60 يومًا فقط. سيتمّ اختيار أساليب الحفر ونوع وحدة الحفر لتتناسب خصيصًا مع بيئة المياه العميقة في منطقة البلوك 4. وسيتمّ تنفيذ أعمال الحفر وفقًا لاتّفاقية ماربول 73/78، وستتضمّن وحدة الحفر ميزات تشغيلية عالية الكفاءة من حيث تصميمها وقدراتها.
- تمّ اختيار موقع القاعدة اللوجستية بشكل يضمن الحدّ قدر الإمكان من الآثار على البنية التحتية الحالية. ومرفأ بيروت هو الخيار الأقرب والأنسب حيث تتوفّر فيه الإمكانات المطلوبة دون الحاجة إلى التوسيع.
- من المتوقّع أن تكون جميع الآثار الروتينية والعَرَضية (المحدّدة في هذا التقييم) قابلة للمعالجة، مع وجود بعض الآثار المقبولة التي قد تبقى بعد تطبيق الإجراءات التخفيفية.

dar**es**k





#### نظام الشكاوى الخاصّ بشركة TOTAL



darrsk





#### تقرير تقييم الأثر البيئي: الخطوات المقبلة

- التقرير الأوّلي متوفّر على العنوان التالي <a href="https://www.rsklebanon.com/total/block4/eia-comments/">https://www.rsklebanon.com/total/block4/eia-comments/</a> اعتبارًا من 4 أيلول/سبتمبر 2019 ولغاية 4 تشرين الأوّل/أكتوبر 2019
  - اجتماعان للمشاورات العامة يومَي الخميس والجمعة 19 و20 أيلول/سبتمبر 2019 (بيروت وجبيل)
- يتم جمع التعليقات والملاحظات على مسودة تقرير تقييم الأثر البيئي، وتؤخذ في الاعتبار لإعداد التقرير النهائي قبل تقديمه إلى وزارة البيئة للموافقة عليه. يمكن تقديم التعليقات والملاحظات من خلال الوسائل التالية:
  - باستخدام الأداة المتوفّرة عبر الإنترنت حيث يُنشَر تقرير تقييم الأثر البيئي؛
  - أو خلال اجتماعات المشاورات العامة (سيتم تسجيل وتوثيق الملاحظات والأسئلة).
  - تستلم وزارة البيئة وهيئة قطاع والبترول التقرير النهائي لتقييم الأثر البيئي، وتراجعه، وتعطى قرارها النهائي بشأنه.
    - تبدأ أعمال الحفر بعد الموافقة على تقييم الأثر البيئي.

dar **RSK** 

# الأسئلة والأجوبة

dar **RSK** 

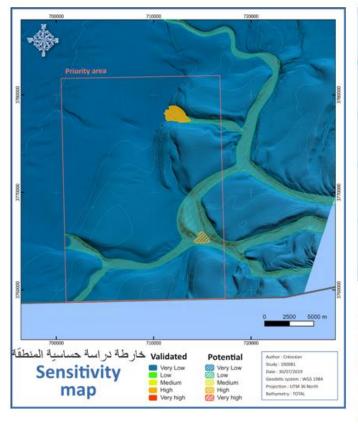


dar **RSK** 

# معلومات داعمة إضافية



# حساسية المنطقة



| الحساسية<br>المحتملة | الحساسية<br>المؤكّدة | المعايين   | الموائل                           |
|----------------------|----------------------|--|-----------------------------------|
|                      | منخفضة جدًا          | الغنى والتنوّع البيولوجي قليل إلى قليل<br>جدًا   | سطح رسوبي لپّن                    |
| منخفضة               |                      | الغنى البيولوجي قليل، لكن توجد مناطق<br>فيها إمكانات محتملة بحسب مهمّة<br>2014 ،CNRS) OCEANA | الأخاديد                          |
| منخفضية              |                      | الغنى البيولوجي قليل، لكن توجد مناطق<br>فيها إمكانات محتملة بحسب مهمّة<br>OCEANA (CNRS)      | حدود الأخاديد مع<br>متحدرات عالية |
| مرتفعة               | مرتفعة               | النتوءات الصلبة تأوي نسبة أعلى من<br>الغنى والتنوّع البيولوجي                                | مواقع المنخفضات<br>في قاع البحر   |

منطقة صخرية تستقطب الأسماك



# الأحداث العَرضية /غير المخطّط لها

الأحداث العَرَضية/غير المخطّط لها التي شملها التقييم هي التالية:

- سقوط جسم من وحدة الحفر
- حصول خلل في احتواء المواد الكيميائية على متن وحدة الحفر
  - فقدان المصدر المشع في البئر
- حدوث ثقب في الأنبوب الصاعد وتسرّب سوائل الحفر في البحر
  - انفجار غازي على عمق منخفض تسرّب الغاز
    - انفجار تسرّب الانبعاثات الكثيفة
    - اصطدام سفينة تابعة لطرف ثالث بوحدة الحفر
    - تحطّم طائرة هليكوبتر على سطح وحدة الحفر
  - حصول خلل في إجراءات الاحتواء أثناء نقل المواد
    - فقدان توازن المنصبة
    - وقوع زلزال، ما يؤدي إلى تضرر سلامة البئر
- حصول خلل في إجراءات الاحتواء أثناء نقل المواد عند رصيف القاعدة اللوجستية

dacesk

#### الأحداث العَرَضية/ غير المخطّط لها

تمّ إجراء تقييم تفصيلي للآثار المحتملة لأسوا حادثة يمكن أن تحصل وتؤدّي إلى تسرّب الهيدروكربونات على نطاقٍ واسع، وأُجرِيَت عملية نمذجة للتسرّب النفطي.

- السيناريو الأوّل تسرّب مستمرّ للانبعاثات الكثيفة (بسبب انفجار تحت البحر) على مدى 90 يومًا، بمعدّل 1562 برميلًا في اليوم الانجراف إلى الشرق والشمال الشرقي تأثيرات محتملة على الساحل الشمالي للبنان واحتمال قليل للتأثير على الساحل الجنوبي لسوريا (وصول التأثير إلى خطّ الساحل في اليوم الثالث)
- السيناريو الثاني تسرّب فوري لـ6000 متر مكعب من الديزل البحري على سطح البحر بالقرب من موقع البئر الانجراف إلى الشرق والشمال الشرقي تأثيرات محتملة على الساحل الشمالي للبنان والساحل الجنوبي لسوريا والمياه القبرصية، احتمال ضعيف (وصول التأثير إلى خطّ الساحل في اليوم الثاني)

dacesk

4 October 2019

#### نمذجة قصاصات الحفر

تم تنفيذ النمذجة لخيارين ، انظر أدناه:

- الخيار 1 (حالة القاعدة) قصاصات ومياه البحر ، واكتساح هلام والطين وسادة تصريفها إلى قاع البحر أثناء الحفر الناهض للأقسام حفرة 36 "و 26". قصاصات غير مائي وسوائل حفر من أقسام الفتحة السفلية للبئر المنقولة إلى الشاطئ للمعالجة والتخلص منها (بدون تصريف خارجي).
  - الخيار 2 قصاصات ومياه البحر ، وعمليات مسح الهلام والطين الوسادة التي يتم تفريغها في قاع البحر أثناء الحفر المتساقط للأقسام ذات الفتحات 36 "و 26" ، ثم يتم التخلص من قصاصات HPWBM من الحفارة (بعد فصل سوائل الحفر) لـ 17 ½ "، أقسام ثقب 12 "، و 8".

RSK

4 October 2019

#### نمذجة قصاصات الحفر

#### الخيار 1:

الرواسب: مخاطر تراكمية كبيرة تصل إلى 155 متر من نقطة التفريغ ، معظمها في حدود 100 متر ؛ المساهمون الرئيسيون - سمك الرواسب وحجم الحبوب.

عمود الماء: خطر كبير يصل إلى 25 كم من نقطة التصريف بالقرب من قاع البحر ؛ خطر من 26 "المقاطع ؛ تأثير قصير الأجل (<5 أيام). يتم توجيه الخطر على عمود الماء بواسطة البنتونيت ، وهو طين خامل مع سمية بيئية منخفضة. سيقلل البنتونيت نوعية المياه عن طريق إضافة تعكر ، ولكن لن تتأثر العوالق ومعظم أنواع الأسماك بسبب قرب العمود من قاع البحر.

#### الخيار 2:

الرواسب: مخاطر تراكمية كبيرة تصل إلى 1.5 كم من نقطة التفريغ ؛ المساهمون الرئيسيون - سمك الرواسب وحجم الحبوب والمواد الكيميائية

عمود الماء: خطر كبير يصل إلى 12.7 كم من نقطة التصريف في منتصف المياه وعلى السطح ؛ خطر من 26 "المقاطع (يحرك الخطر على عمود الماء الباريت الذي يعتبر سمية منخفضة للحيوانات البحرية. تتبدد هذه التصريفات في عمود الماء بسرعة.)

4 October 2019







# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 3.20 Disclosure Phase Frequently Asked Questions (FAQ)









| Total Exploration and Production (E&P) Lebanon Blocks 4 |   |  |
|---|---|--|
| Question  | Answer  |  |
| Project characteristics                                 |   |  |
| What is the project?                                    | On 29 January 2018, the Republic of Lebanon represented by the Minister of Energy and Water signed two exploration and production agreements with the consortium composed of Total E&P Liban SAL ( <b>TEP Liban</b> ), Eni Lebanon BV and Novatek Lebanon SAL. TEP Liban, in its capacity as operator, is planning to carry out exploration drilling activities within Block 4 in late 2019.  |  |
| Who is TOTAL?   | TOTAL is a major energy player that produces and markets fuels, natural gas and low-carbon electricity in more than 130 countries. TOTAL's 98,000 employees are committed to better energy that is safer, more affordable, cleaner and accessible to as many people as possible. TOTAL's ambition is to become the world's most responsible energy major.   |  |
|   | Climate issues are an integral part of TOTAL's corporate strategic vision with an objective to have low-carbon businesses account for around 20% of the company portfolio by 2035.  |  |
| Who is TOTAL?   | TOTAL S.A., a French société anonyme (limited company) incorporated on March 28, 1924, together with its subsidiaries and affiliates, is the fourth largest publicly-traded integrated international oil and gas company in the world.  |  |
|   | With operations in more than 130 countries, TOTAL has activities in every sector of the oil industry: including in the upstream (oil and gas exploration, development and production, liquefied natural gas) and downstream (refining, petrochemicals, specialty chemicals, the trading and shipping of crude oil and petroleum products, marketing). In addition, TOTAL operates in the power generation and renewable energy sectors and has equity stakes in coal mines. |  |
|   | TOTAL is involved in exploration and production projects all over the world. The Group's investment priorities focus especially on four strategic sectors: the deep offshore, liquefied natural gas, unconventional gas, and extra-heavy oils and oil sands. TOTAL recorded its first deep-water feat back in 1982, drilling an experimental well in 1,714 meters of water, making oil industry history as a pioneer of deep offshore development.                          |  |
|   | TOTAL is also broadening its offering by developing energies that can partner oil and gas — today, solar energy and tomorrow, biomass.  |  |
|   | As a responsible corporate citizen, TOTAL focuses on ensuring that its operations consistently deliver economic, social and environmental benefits.   |  |

| Total Exploration and Production (E&P) Lebanon Blocks 4  |   |
|--|---|
| Question   | Answer  |
| What is oil & gas exploration?   | Oil&Gas exploration is the process that involves the efforts of many trained professionals such as geologists, geophysicists and engineers working with both the National and Regional Governments as well as local communities in search of oil and gas deposits beneath the Earth's surface onshore or offshore. This is very specific business both in terms of technologies applied, financial investment and risks associated. |
| What type of hydrocarbons does Total expect/target to find in Block 4, oil or gas?                   | Total expects gas with a small amount of condensate. There are no wells drilled there so far and a lot of geological questions will be elucidated only after drilling into this deep-water sector.  |
|  | Condensate is very light oil (eg gasoline) that evaporates quickly and therefore it's impact on the environments is quite limited.  |
|  | Condensate is very light oil product (comparable to gasoline) that will evaporate very rapidly and disperse in the water column (with waves) when reaching the surface. Modelling studies anticipate a very high natural biodegradation rate of dispersed condensate in the water-column which will reduce the contamination.   |
| What does condensate mean?   | According to modelling studies, in case of a blow-out and after 120 days, the mass balance will be as follows:  47% is evaporated and 51% is biodegraded;   |
|  | Only 0,3% (about 45 metric tons) remains dispersed in the water-column; and   |
|  | No oil perceived at surface   |
|  | Stranded hydrocarbon represents 0,1% of total hydrocarbons released   |
| What is deep offshore exploration and production?  | Deep offshore exploration and production as principles is same as shallow offshore and onshore. The difference is related to special technologies applied in such difficult environment that requires special equipment and operations. This apart from being more time consuming is also very expensive  |
| What is the cost of the exploration?   | This is difficult to give a precise cost because they are depending on a large number of parameters: market condition, duration of the operation. As a range the daily drilling cost is between 700K and 1M€ per day.   |
|  | The exploration drilling activities will be carried out offshore.   |
| Which administrative divisions and villages will be affected by the exploration drilling activities? | The minimum distance of Block 4 from the nearest coastline is 6 km, but during the proposed drilling work, the minimum distance from shore to a well would be around 12 km.   |
|  | An onshore logistics base will be used for transporting supplies and crew out to the exploration drilling area. The logistics base will be located in the Port of Beirut, however the exact location is not yet confirmed.  |
| When will the exploration drilling activities  | TEP Liban proposes to conduct the exploration drilling activities in late 2019.   |
| start?   | Exact mobilisation date is yet to be confirmed and is dependent on the permitting process.  |

| Total Exploration and Production (E&P) Lebanon Blocks 4                                  |   |
|--|---|
| Question   | Answer  |
| How long will the exploration drilling activities last?                                  | Drilling of each potential well in Block 4 is estimated to last about two months.  Weather downtime, crew changes and reconfiguration of the equipment may extend the exploration drilling activity period.   |
| How long will it take to produce gas?  | To define the life of some deposit, there shall be first discovery to be made and then to make assessment of the discovery. A lot of factors define the life of production – among them there is a group of geological factors, which will give the answer what can be the optimum rate of production depending on reservoir properties, pressures etc. It is also important to know the production technology and infrastructure system, which are imposing their limitations as well. Every single deposit in the world has its own specifics that define the life of production.   |
| What is exploration drilling and what methods will be used?                              | The proposed exploration drilling wells will be placed on exploration targets identified in Block 4.  These would be drilled using a modern drilling vessel held in place by a dynamic positioning system, and possibly some anchors.  The well design is yet to be finalised but will comprise the jetting in or drilling of a conductor pipe (about 36 inches) using seawater, then drilling of the next hole section using water-based fluids, and possibly changing to a synthetic-based fluid for the lower sections of the well.  The drilling vessel will be mobilised from outside Lebanon and will arrive with all significant exploration drilling equipment on board. One support vessel will be based permanently at the drill site to provide security. Two supply vessels will transfer supplies, materials, equipment and waste between the drill ship and the logistics base. It is estimated that up to 10 return trips will be required per week. Crew changes are planned by |
| If oil or gas is found, when will commercial drilling begin?                             | helicopter from Beirut International Airport, with an estimated 10 return trips per week. Crew transfer by vessel is also being considered.  In case we find hydrocarbons we first have to assess if it is commercial or not to produce them. From discovery to first commercial production it could take up to 10 years.   |
| What are the environmental impacts associated with crew changes by helicopter or vessel? | The helicopter flight path has not yet been confirmed but it will be defined to ensure that it is as safe as possible. In terms of environmental impacts there will be some noise from helicopter transfers that may affect people along the flight path, and some air emissions from combustion of aviation fuel. Given the relatively short flight time (8 minutes between airport and drill ship) we don't expect these emissions to have a noticeable effect on air quality. If vessels are used for crew change, they will create additional sea traffic, but again we don't expect the number of vessel movements to create any significant constraints to other vessel movements in the area.  |

| Total Exploration and Production (E&P) Lebanon Blocks 4 |   |
|---|---|
| Question  | Answer  |
| Where will personnel and equipment be accommodated?     | Personnel will fly into Beirut airport and then out to the drilling rig.  Most of the equipment will remain on the exploration drilling vessel. Some equipment will be stored at the logistics base inside Beirut Port. |
| Will new roads need to be built?                        | No new roads are required for this project.   |

| Total Exploration and Production (E&P) Lebanon Blocks 4                               |  |
|---|--|
| Question  | Answer   |
|   | The drill ship and vessels contracted by TEP Liban will be required to follow international and national requirements with regard to handling of their waste streams, in particular requirements in the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78).  This Convention prohibits the discharge of garbage, sets limits for oil content of drainage water, specifies  |
| How will waste be managed?  | requirements for sewage treatment and discharge and discharge of food waste, and sets limits for certain atmospheric emissions.  |
|   | Solid wastes will be returned to the logistics base for recycling, treatment and disposal.   |
|   | Water based cuttings will be discharged at sea. If synthetic drilling fluid is used to drill the lower hole sections of the well the resulting cuttings will be shipped to shore for treatment and disposal (probably in facilities in Cyprus).  |
|   | The drilling fluids to be used in the first (upper) well sections will be water-based muds (WBM). There is no way of collecting the cuttings created from the upper well sections, and they will be discharged directly onto the seabed from the well. They will bury some seafloor organisms in close proximity to the well (<100m).  |
| What type of drilling mud will you use and  | In the lower well sections the muds will either be water-based drilling fluid or non-aqueous based (synthetic) drilling fluid (NADF). Water based fluids and cuttings will be discharged to the sea from the MODU. Water based muds have a low impact on the environment. The chemicals in the water-based mud drilling fluid are low in toxicity so will not harm the environment.  |
| what is the impact on the environment?  | Modelling of the risk from discharge of water-based mud on cuttings both directly onto the seabed (from the upper well sections), and from the MODU during drilling of the lower well sections has been carried out. Results from the modelling show that there is a potential risk of moderate effects on water quality close to the seabed (from direct discharge onto the seabed), and minor effects to water-quality closer to the surface if WBM on cuttings is discharged from the MODU. |
|   | Non-aqueous based drilling fluids will be recycled on the drill ship and then taken back to shore along with the drill cuttings. These will be disposed of onshore.  |
| How will waste be treated? What measures will be in place? Where will waste be taken? | A Waste Management Plan is being developed that will describe how each type of waste stream will be treated in line with local regulatory requirements and international conventions and corporate requirements.   |
| How will drilling waste disposal be monitored?  | The volume of cuttings discharged to sea will be recorded by the drilling contractor. An ROV site clearance survey will be conducted after drilling operations are complete to provide a status of the seafloor condition around the wellsite.   |

| Total Exploration and Production (E&P) Lebanon  |   |  |
|---|---|--|
| Blocks 4  |   |  |
| Question  | Answer  |  |
| Who gave Total E&P Liban permission to undertake the exploration drilling activities? | Exploration and production rights are awarded through an Exploration and Production Agreement (EPA) approved by the Council of Ministers and signed by the oil and gas company and the Minister of Energy and Water.  |  |
|   | Project is subject to an EIA study under the Decree 8633/2012 and as confirmed by Lebanese authorities. The EIA will need to be approved by the Ministry of Environment for the exploration drilling project to go ahead.   |  |
| Who will be doing the exploration drilling activities?                                | TEP Liban's drilling and well services contractor (and several support contractors) will undertake the activities under the supervision and coordination of the operator.   |  |
| Environmental impact assessment (EIA)   |   |  |
|   | An EIA is an independent scientific study that identifies the potential environmental and social impacts of a project. It aims to predict impacts at an early stage in project planning and find ways to reduce adverse impacts through the implementation of mitigation measures.  |  |
|   | It is a requirement under the Decree 8633/2012 'Fundamentals of Environmental Impact Assessment'.   |  |
|   | The EIA has several phases:   |  |
|   | Scoping phase: This aim of this phase is to identify the scope of the EIA, the study area, available baseline information and high-level potential impacts that need to be evaluated further during the EIA.  |  |
| What is an EIA and why are you doing one?   | Baseline study phase (EIA phase): This phase involves various studies to understand the natural and social-economic environment. An offshore environmental baseline survey has been carried out in Block 4 and specialists from RSK, Dar and InfoPro have met with people in the project -affected communities to better understand the social environment and the way people live. |  |
|   | Impact assessment phase (EIA phase): In this phase, the potential impacts are identified, defined and evaluated in terms of effects on environmental receptors and people.  |  |
|   | Management plans (EIA phase): In this phase, plans are created (based on mitigation measures in the EIA) to minimise the potential negative impacts and optimise the potential positive impacts.  |  |
|   | Disclosure phase: After completion of the draft ESIA, there is a period of information disclosure to ensure stakeholders are able to comment on the outcomes of the study and to explain how their concerns have been addressed / will be addressed.  |  |
| How long will it take for the EIA to be completed?                                    | Work began on the EIA phase in February this year and we are now in the disclosure phase. It is expected that the final version of the EIA for Block 4 will be complete by the end of October 2019.   |  |

| Total Exploration and Production (E&P) Lebanon Blocks 4 |   |
|---|---|
| Question  | Answer  |
| Were local experts part of the EIA process?             | Local experts are an important part of the EIA process. To complete the study, an international team (RSK) and local consultancies (Dar and INFOPRO) worked closely together to examine the environmental and social effects that the project may have. |

| Total Exploration and Production (E&P) Lebanon Blocks 4                                  |   |  |
|--|---|--|
| Question   | Answer  |  |
| What environmental studies have been undertaken?   | An environmental desk study and an offshore environmental baseline survey of Block 4 were undertaken by an international team (Creocean) and local consultancies (Keran Liban, DEP and ELARD) during the first quarter of 2019.   |  |
| Impacts on health and safety   |   |  |
| Will the exploration drilling activities lead  | In terms of the public, increases in airborne noise levels will be limited to those associated with the helicopter and vessel transfers and operations at the logistics base.   |  |
| to an increase in noise levels? What will be done to mitigate these impacts?             | The logistics base is located within the Beirut commercial port therefore sensitive residential areas not in close proximity. If noise from the logistics base is likely to present a nuisance Total will take measures to ensure that levels are mitigated at source.  |  |
| Will oil exploration affect the health of my family or the integrity of the environment? | <ul> <li>No.</li> <li>Well managed operations work to limit the negative impact on people, animals and the environment.</li> <li>Environmental and Social Impact Assessment (ESIA) studies have been done and processed through Environmental Authorities. Regional Inspectorate Environment and Water has reviewed and approved the operation.</li> <li>All risks identified during these studies are adequately mitigated during operations.</li> <li>TOTAL applies very high Health and Safety standards – same as those in other places in the world: North Sea/ Gulf of Mexicowhich oblige them to ensure that human, animal and environmental degradation is avoided at all costs. This is one of the contractual obligations any oil company has with the Government.</li> <li>A comprehensive Environmental Management System will be put in place. Several documents will be prepared, including the Emergency Response Plan and The Oil Spill Contingency Plan. In addition, TOTAL E&amp;P Liban will hire a drilling contractor that has strong environmental, health and safety programs.</li> <li>The Block, which is located in the exclusive economic zone in the Mediterranean Sea, is very remote and away from people and any environmentally sensitive areas.</li> </ul> |  |

| Total Exploration and Production (E&P) Lebanon Blocks 4   |  |  |
|---|--|--|
| Question  | Answer   |  |
| What will be the impact on our water sources? Will the marine water be impacted (polluted) by the exploration drilling activities? What will be done to mitigate these impacts? | As stated earlier, the drill ship and vessels contracted by Total E&P will be required to follow international and national requirements with regard to handling of their waste streams, in particular requirements in the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78).  Impacts from drill cuttings and fluid discharges are anticipated to be extremely short term with respect to the water column and localised with respect to the sediment. Only water-based cuttings will be discharged. If NADFs are used the cuttings will be returned to shore for treatment and disposal.  |  |
| Will these activities make me sick? Will there be air pollution?  | Emissions to air will be limited to exhaust emissions from the drilling vessel, the support vessels and helicopter exhausts which will disperse rapidly in the offshore environment. No health impacts on the public anticipated from these sources.   |  |
| Impacts on livelihoods  |  |  |
| Will there be any impacts on fishing in the project area? How will you compensate for the loss of income for those engaged in fishing?  | Fishing activities in Lebanon legally restricted to 6 nm from the coast, the Block 4 priority drilling area is located further offshore therefore fishing activity will be limited.  We believe that the project will have a low impact on fishing livelihoods – there will be a small temporary exclusion area around the drilling rig and the supply vessels will move between the drill site and the logistics base in Beirut port at a frequency of 8-10 return trips per week.  Following the drilling work the well will be plugged and abandoned. A 5m high well head structure will remain on the seabed. As water depths at the well site are 1450 m the wellhead is unlikely to have any impacts on fishing activities (fishing limited in Block 4 and water depths not conducive to trawling activities). |  |
| Will there be any impact on tourism in the project area? How will you compensate for the loss of income for those engaged in tourism-related jobs?                              | It is acknowledged that there are tourist activities along the coast of Lebanon. As the closest exploration drilling activity area in Block 4 would be at least 12 km offshore, impacts on tourism in this area are not anticipated.   |  |
| Impacts on cultural heritage  |  |  |
| Will the exploration drilling activities damage offshore archaeology?   | Cultural heritage sites have not been identified in the Block 4 priority area. If you are aware of any cultural heritage sites that may not be officially recognised, please let us know via this email address: ep.tepl-info@total.com  |  |
| Impacts on biodiversity   |  |  |

| Total Exploration and Production (E&P) Lebanon Blocks 4                                      |  |  |
|--|--|--|
| Question   | Answer   |  |
| What is the current state of the sea?  | The baseline section of the EIA provides detailed information on the state of the sea around Lebanon.  Nearshore waters and sediments are contaminated in some areas. Further offshore, including in the proposed drilling area, water and sediments are relatively clean.   |  |
| Will there be any impacts on biodiversity?   | The EIA report identifies potential impacts on biodiversity and includes information on industry best practice mitigation which will be used.  |  |
| Will there be any impact on critical habitats?   | A critical habitat is a specific geographic area that contain features essential to the conservation of an endangered or threatened species and that may require special management and protection. There are no designated critical habitats in the AOI and the EBS undertaken in March 2019 confirms this.   |  |
| Will there be any impacts on marine protected areas?   | In terms of the coastal and marine environments, there are only two protected areas in Lebanon - the Palm Islands Nature Reserve (although this is not close to Block 4) and the Tyre Coast Nature Reserve which is located in the south of Lebanon. Impacts on these protected areas are not anticipated from routine planned activities associated with the exploration drilling programme.              |  |
| Will there be any impacts on fauna of tourism value (e.g., whales, dolphins, big fish)?      | The presence of marine mammals was monitored during the EBS by marine mammal observers during the EBS survey. The EIA lists the mitigation measures which will be engaged to reduce impacts to marine mammals, turtles and fish from underwater noise, reduction in water quality, etc.  |  |
| Will there be any Ecologically or<br>Biologically Significant Marine Area<br>(EBSA) impacts? | Block 4 is within the East Levantine Canyon Area EBSA that runs along the Lebanese coast and contains deep canyons, hydrothermal vents, submarine freshwater springs and is of particular biological importance. No seabed features or habitats of particular interest / importance were identified in the B4-1 wellsite area during the EBS (grab samples, photography, ROV footage used to survey area). |  |
| What is the effect of deep offshore drilling on the marine environment?                      | Exploration drilling under normal operations has a limited impact on the environment because it is limited in time and leaves no permanent installation in the sea.  |  |
| What measures is Total taking to protect the environment?                                    | To protect the environment, we first have strict waste management plan, and we use best engineering practices and high technology to prevent any accidental releases. We will also be carrying monitoring of the environment during and after drilling.  |  |
| Accidental events  |  |  |
| In the light in Macondo, is an oil spill possible?   | It cannot be said that an oil spill is not possible. But the industry in general and Total in particular have worked before and after Macondo to prevent such accident to happen, by reinforcing its referential and control system,   |  |

| Total Exploration and Production (E&P) Lebanon   |   |
|--|---|
|  | Blocks 4  |
| Question   | Answer  |
|  | multiplying safety barriers, strengthening operational procedures, and so on. But even if a major oil spill is then extremely improbable, an operational plan is prepared to face such an accident.   |
|  | The blow-out scenario (worse case) is not comparable to Macondo event for the following reasons:  |
|  | B4 non-persistent condensate and gas versus Macondo crude oil   |
|  | B4 blow-out flow-rate range 250m3/day versus Macondo 5 to 6000 m3/day   |
|  | Oil industry has developed subsea intervention tools post Macondo and TEPL has contracts in place to access these tools (CAPPING STACK, Subsea dispersant injection).   |
|  | A critical review of all possible accidental event scenarios are considered in the EIA and mitigation measures proposed to reduce the impacts to as low as possible.  |
| What sort of accidents may occur and what would the impact be?                                   | Worst case accidental events such as a well blowout or a ship collision could result in a large release of hydrocarbons. Spill modelling has been conducted to better understand oil dispersion in the environment and areas that could be affected by such a release as part of the EIA. TEP Liban will implement operational controls and will implement Oil Spill Response & monitoring capabilities to respond at sea and minimise coastal impacts and impacts on neighbouring countries. |
|  | Total has enhanced measures to prevent the risk of blowouts when drilling wells and developed tools and procedures to bring subsea blowouts under control (BOCP) as quickly as possible.  |
|  | Worst case oil spill scenarios have been identified:  |
|  | - well blow-out (1560 barrel of condensate per day + 12.3 millions SM3/ day of gas)   |
| What are TEPL's arrangements in case of  | - loss of the RIG which would lead to the release of up to 6,000 M3 of Marine Gas Oil at sea + drilling mud (few 100's m3).   |
| accident? (blow out).  | TEPL's response arrangements are described in the Blow-Out Contingency Plan (in preparation) and the Oil Spill Contingency Plan (in preparation). Both BOCP and OSCP are integrated within the Liban Emergency Response Plan (ERP) and are consistent with the provisions of the National Oil Spill Contingency Plan in Lebanese Water (NOSCP, 2017) and in line with international best practices.   |
| Do you have a capping system available?<br>And how long would it take to install it?             | TEP Liban has contractual arrangements in place with Oil Spill Response Limited (OSRL) for the mobilization of a capping stack device. Exact mobilization time is currently being assessed and will be available in the BOCP (expected to be in the range of 20-25 days).   |
| What about relief wells? How long would it take to install it and to regain control of the well? | Current estimation for the drilling of a relief well is 90 days, under consolidation in the development of the BOCP.  |

| Total Exploration and Production (E&P) Lebanon Blocks 4                                    |   |
|--|---|
| Question   | Answer  |
|  | Surface spraying of chemical dispersant product has been discarded as ineffective for condensate and MGO at the sea surface.  |
| Would you use dispersants and if yes what would be the impact on the marine life?          | In case of a blow-out, <u>and</u> if significant amount of condensates is observed at the sea surface, the option of subsurface injection of chemical dispersants may be considered using a SSDI device (Estimated mobilization time of SSDI: 10 days). The estimated amount of dispersant that would be needed is 1:100 of the amount of condensate; i.e. for a 1560 bopd, the amount of dispersant needed would be 15,6 barrel per day. The impact of this very limited quantity of dispersant and dispersed condensates and oil mixture at this depth is expected to be none significant (dilution, biodegradation, drift etc.). |
| Do you have an oil spill response  | TEP Liban, along with the development of its OSCP, is implementing oil spill response capabilities and an incident management system. TEP Liban will have in country some equipment to initiate oil spill response if needed, and contracts/ arrangement sin place to mobilize further resources (for larger incidents).  |
| organization in place?   | The TEP Liban oil spill organization will interface with the Lebanese national oil spill response organization (if and when mobilized). 2019), to ensure an efficient coordination with the national authorities in case of an oil spill incident.  |
| What are your oil spill response means?<br>How long would it take to have them on<br>site? | Oil spill response resources are defined in accordance with the NOSCP, using a "Tiered approach" whereby, 'small' incidents (Tier 1) will be managed with resources to be available onsite only, 'medium' (Tier 2) less probable incidents will require assistance from within the country (possibly close country) and response to large (Tier 3) and very unlikely incidents requires the additional mobilization of international assistance. Equipment and response tactics are detailed in the OSCP.   |
| What is the volume of spill in case of blow  | In the EIA a scenario was considered that involved a continuous release (subsea blowout) of condensate for 90 days at well site B4-1 with a flow rate of 1562 bb/s/day with no response measures applied;   |
| out?   | Working Hypothesis is 1560 bpd of condensate and 12,300,000 sM3/day of gas. Approximately 250 m3/ day of condensates?   |
|  | Spill main drift is observed towards the northeast and north-northeast, potential impacts to northern coast of Lebanon and low probability of impacts to southern coast of Syria.   |
| How large will be contaminated area in   | In case of a blow-out, due to the depth of the well, it is expected that no gas will reach the surface.   |
| case of blow out?  | According to a modelling study carried out by Total EP, although most of the condensate will disperse in the water column, weathered condensate residues may strand on the shoreline with most effect perceived to the North of the Lebanese shoreline.   |

| Total Exploration and Production (E&P) Lebanon   |   |  |  |  |
|--|---|--|--|--|
| Blocks 4   |   |  |  |  |
| Question   | Answer  |  |  |  |
| What impact for environment (water or air contamination, hazards for flora, fauna) in case of blow out?        | Due to the water depths at the B4-1 well site, which favours dissolution of hydrocarbons in the water column, and the tendency for condensates to evaporate rapidly (within a few days following release), there is limited predicted impact to benthic communities, sensitive seabed features, plankton and fish from a blowout. A condensate spill at the surface may affect marine mammals, turtles and seabirds through inhalation or oiling. Sensitive coastal habitats such as seagrass beds may also be affected but there is low probability for coastal waters to be impacted. The Oil Spill Contingency Plan will limit impacts should a blowout occur. |  |  |  |
|  | Potential impacts on the environment are summarized in the EIA "Total E&P Liban Sal Block 4 (Lebanon) Offshore Exploration Drilling EIA RSK/H/P/P80754/04/01 Block 4 rev0".   |  |  |  |
| Any hazard for inhabitants of neighbouring villages? - Which coastal communities may be affected by a blowout? | From the worst-case modelling scenarios considered condensate make first contact with coastal communities just north of Byblos (Jbeil) 3 days after a blowout. The spill drift continues north up the coast with potential impacts to communities around Batroun and Selaata. The Oil Spill Contingency Plan will limit impacts should this blow out occur.   |  |  |  |
| Any impact for their activities (fishing, diving, recreation areas)?   | Fisheries and tourism may be affected due to hydrocarbon contaminated fishing gear, coastal waters and beaches should a blowout occur. These may also be impacted during clean up, however the Oil Spill Contingency Plan will optimise the response at sea to limit impacts to coastal community activities. If dispersants are used as part of the response, only those which have been previously approved by the MoE will be applied.   |  |  |  |
| Employment and community developme   | nt  |  |  |  |
| What will the project bring us in terms of local development?  | Total E&P principally contributes to host societies through revenues, taxes, employment and business opportunities associated with its projects and operations.   |  |  |  |
|  | Exploration drilling is intended to prove the value of any oil and gas reserves. If oil or gas is discovered in commercial quantities, then a further EIA will be required to cover a "development" stage of the project. If the project proceeds to development, then there will be greater opportunities for employment.  |  |  |  |
| What will be the contribution of the project to the local economic development?                                | The contribution to local economic development will be limited initially in the exploration phase. It will mainly be linked to the shore logistics base presence and related activities (transportation of goods, waste management etc.).  Whenever possible, we give opportunity to local providers to compete to tenders in order to support the local economy.  Significant contribution can be expected in case of production. Like the development of new industrial sector highly technological (Engineering, construction, operators) where Lebanon can build expertise on the long term and be very competitive.  |  |  |  |

| Total Exploration and Production (E&P) Lebanon Blocks 4   |   |  |  |
|---|---|--|--|
| Question  | Answer  |  |  |
| Will there be an opportunity for local people to get employed in the project? How many people will be employed for the project? Where will the project hire casual labour from? Will jobs be available for skilled, semi-skilled and unskilled workers? | The exploration drilling will be carried out by a drilling and well services contractor that employs professionals with specialist skills and qualifications that will be recruited internationally.  Opportunities for a small number of Lebanese nationals are anticipated associated with the logistics base operation and for provision of HSE / Community Liaison Officers.  The project will also generate revenue for local businesses, for example, through provision of accommodation and catering services. If new job positions are open this will be announced through our corporate website.   |  |  |
| Will any job training be available to make sure that local people will have access to semi-skilled and skilled positions?   | In order to work on a drilling rig, a certain level of training is required. Given that the drilling is expected to have a duration of only around 60 days per well, TEP Liban do not intend to commence a training programme at this stage.  In the event that the exploration drilling is successful, and the project moves on to development phase, TEP Liban will work closely with the government and other key stakeholders to identify opportunities to equip This SEP has been updated to reflect additional stakeholder engagement phases following the scoping phase engagements; based on lessons learnt, this SEP includes scoping, baseline and disclosure phases.  Lebanese nationals and enterprises with the right competencies and capabilities to access any potential future employment / opportunities. |  |  |
| How will Total E&P ensure jobs are shared fairly between the different fractions? Will there be any preference for women, ethnic minorities and vulnerable groups?  | At the early stage that TEP Liban is at in Lebanon, opportunity for local employment is very limited. In its hiring decisions, Total E&P follows the principles of fairness, diversity and inclusion.   |  |  |
| Will the drilling contractor purchase food and other resources/services locally?  | Through the contractual process TEP Liban will encourage contractors to maximise local procurement where feasible.  |  |  |
| What plans are in place for corporate social responsibility programmes?   | At this exploration phase it is not anticipated that large-scale corporate social responsibility programmes will be initiated. However, TEP Liban believes that it has a role to play in creating positive social and economic benefits from its operations and will liaise with relevant stakeholders to identify potential socio-economic investment initiatives if the project moves on to development phase.  |  |  |
| Consultation and feedback   |   |  |  |
| How will our views be considered?   | We will ensure that any concerns raised during this disclosure process are documented and considered in the final EIA. The public is invited to review and comment on the EIA report, which is available online at  |  |  |

| Total Exploration and Production (E&P) Lebanon Blocks 4   |  |  |  |  |
|---|--|--|--|--|
| Question  | Answer   |  |  |  |
|   | http://www.rsklebanon.com/total/block4/eia-comments/. This will be the primary comment method. There will also be public consultation meetings on 19 September 2019 at the Radisson Hotel, Verdun, Beirut at 10.00 – 13.00, and on 20 September 2019 at the Cultural Centre, Byblos.   |  |  |  |
| Will we get any feedback on this consultation?  | When the final EIA report has been compiled it will be made publicly available review and will contain a section that lists where previous comments have been acknowledged and addressed. The draft EIA already contains similar acknowledgments and updates as a result of the scoping phase engagement.  |  |  |  |
|   | A flyer (background information document) describing the project is provided.  |  |  |  |
| When will we get formal documents about the project?  | The main public document relating to the project is the EIA report, and an executive summary of the EIA report. These are available on the following website http://www.rsklebanon.com/total/block4/eia-comments/from 4 <sup>th</sup> September to 4 <sup>th</sup> October.  |  |  |  |
| How will our questions and concerns be answered?  | During the consultation meetings, you will have the opportunity to ask questions and express your concerns to TEP Liban and the EIA team. We will try to answer these questions verbally at the time of the meeting. However, in some cases, we may have to clarify and respond at a later date. TEP Liban welcomes feedback at any stage of the project, so please get in touch with us if you have a concern, a grievance, or a question at this email address: ep.tepl-info@total.com |  |  |  |
| To what extent will local communities and other affected stakeholders be engaged during the development of the project?   | Engagement with local communities and other identified stakeholders has started and will continue throughout the duration of the EIA process and the exploration drilling activities.  |  |  |  |
| Who do we contact if we have any grievances? Will you be the team handling grievances, or will there be new people for us to talk to during seismic operations? | TEP Liban takes all concerns and complaints from local communities seriously. A community feedback mechanism has been designed to ensure it is free, fair, transparent and user-friendly.  Concerns can be shared directly with TEP Leban via this email address: ep.tepl-info@total.com   |  |  |  |
| Data collection   |  |  |  |  |
| Which communities where concerned by data collection and how did you select them?   | A sample of communities was selected for primary data collection along the entire coastline (to accommodate potential impacts of a worst-case spill scenario). Communities were selected using purposive sampling [1], based on a diversity of land uses and activities linked to the receptors. The sample aimed to include the   |  |  |  |

| Total Exploration and Production (E&P) Lebanon Blocks 4                    |  |  |  |  |
|--|--|--|--|--|
| Question   | Answer   |  |  |  |
|  | receptors important for the impact assessment. The sample included communities with the following characteristics:   |  |  |  |
|  | urban and rural populations  |  |  |  |
|  | fishing ports  |  |  |  |
|  | fishing activities   |  |  |  |
|  | <ul> <li>tourist resorts, areas providing touristic services and areas where recreational activities are<br/>undertaken (e.g., swimming, sea angling, dive centres, boat tours)</li> </ul>   |  |  |  |
|  | industrial areas   |  |  |  |
|  | <ul> <li>areas where natural resources are collected (e.g., sea shell collecting, salt production)</li> </ul>  |  |  |  |
|  | <ul> <li>United Nations Educational, Scientific and Cultural Organisation (UNESCO) World Heritage Sites<br/>(WHS).</li> </ul>  |  |  |  |
| How many FGD's & KII's were  | 29 KIIs  |  |  |  |
| conducted?   | 14 FGDs  |  |  |  |
| What will you do with the information you collect? Will we get to see it?  | The information collected by the EIA team has been, and will continue to be, evaluated and included in the EIA report. The draft EIA and non-technical summary has been made available for you to review and comment before the final EIA report is prepared and formally submitted to the authorities (MoE and LPA).  |  |  |  |
| Why did Total E&P Liban hire an international company to conduct the ESIA? | TEP Liban have chosen to engage an internationally experienced team that includes RSK and Lebanese consultancy DAR and INFOPRO to complete the EIA work. This team of international and national experts has undertaken the EIA (explained above) and ensured that the EIA is compliant with national and Total E&P standards and international best practice. |  |  |  |
| Next steps   |  |  |  |  |
| What happens next?   | If the exploration drilling finds commercially viable hydrocarbon reserves, it may be a further 5–10 years until 'first oil' production.   |  |  |  |

## Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 4.1 Project Coordinates









## APPENDIX 4.1 PROJECT COORDINATES

Table A.1: Coordinates for Block 4, the Priority Area. and Well B4-1

|  | Longitude (°) | Latitude (°) | X UTM 36N | Y UTM 36N |
|--|---------------|--------------|-----------|-----------|
| Block 4                                      |               |              |           |           |
| A4   | 35.66436      | 34.36667     | 745018    | 3806030   |
| B4   | 35.59759      | 34.32376     | 738998    | 3801111   |
| C4   | 35.52466      | 33.96578     | 733269    | 3761234   |
| D4   | 35.41843      | 33.95002     | 723493    | 3759249   |
| E4   | 35.11667      | 33.95000     | 695601    | 3758630   |
| F4   | 35.11667      | 34.02917     | 695419    | 3767411   |
| G4   | 35.11667      | 34.36667     | 694642    | 3804843   |
| H4   | 35.21667      | 34.36667     | 703839    | 3805039   |
| Priority area                                |               |              |           |           |
| 4PA  | 35.17267      | 34.15586     | 700292    | 3781570   |
| 4PB  | 35.35282      | 34.15632     | 716902    | 3781990   |
| 4PC  | 35.35116      | 33.94981     | 717275    | 3759081   |
| 4PD  | 35.17451      | 33.95100     | 700945    | 3758848   |
| Proposed location for first exploration well |               |              |           |           |
|  | 35.32986      | 34.04131     | 715076    | 3769185   |

WGS84/UTM zone 36 EPSG code: 32636





## Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 4.2 Port Authority Approval for Logistics Base









# محضر تسليم و استلام لباحة الخدمات اللوجستية في المول رقم (1) الخاصة باعمال التنقيب عن النفط والغاز

بناء" على عقد الاشغال الموقع بين ادارة واستثمار مرفأ بيروت و شركة فاست بولوريه لوجيستكس ش.م.ل، رقم 4645 بتاريخ 2019/11/4، والذي يحدد شروط اشغال مساحة 12.000 متر مربع (اثني عشر الف متر مربع) من اجل تامين الخدمات اللوجستية في المول رقم (1) والعائدة لاعمال التنقيب عن النفط والغاز،

تم تسليم المساحة المطلوبة على شكل باحة حسب الخريطة المرفقة، وبالتالي اصبحت هذه الباحة بعهدة شركة فاست بولوريه لوجيستكس ش.م.ل والتي اصبحت المسؤولة المباشرة عليها ابتداءاً من تاريخ توقيع هذا المحضر.

وعليه نظم هذا المحضر على نسختين بيد كل فريق نسخة.

بيروت في ٥٥ / ٨١ / 2019

عن ادارة واستثمار مرفأ بيروت بصفتها الفريق المسلم

عن شركة فاست بولوريه لوجيستكس ش.م.ل بصفتها الفريق المستلم

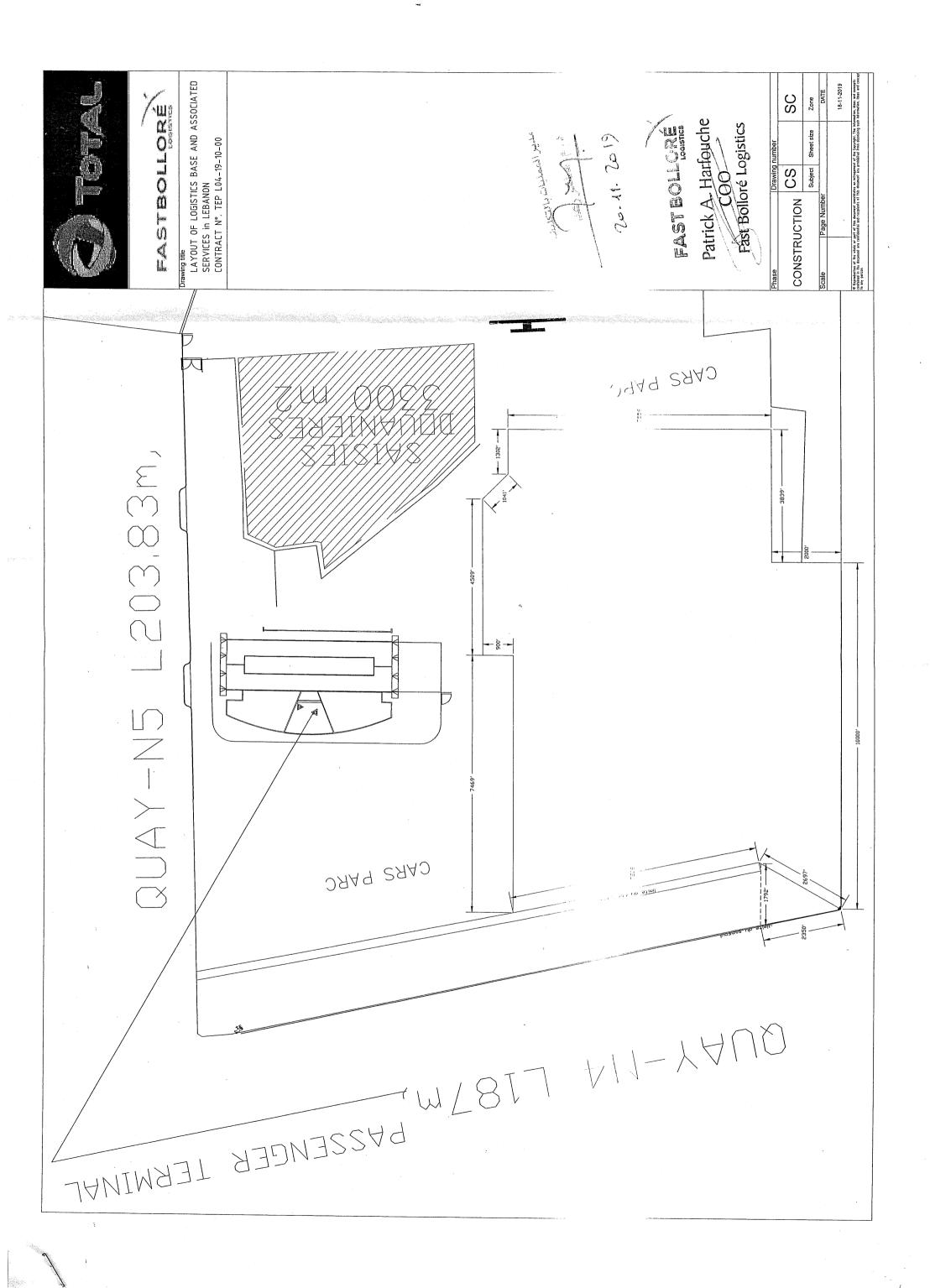
مدير العمليات بالتكليف

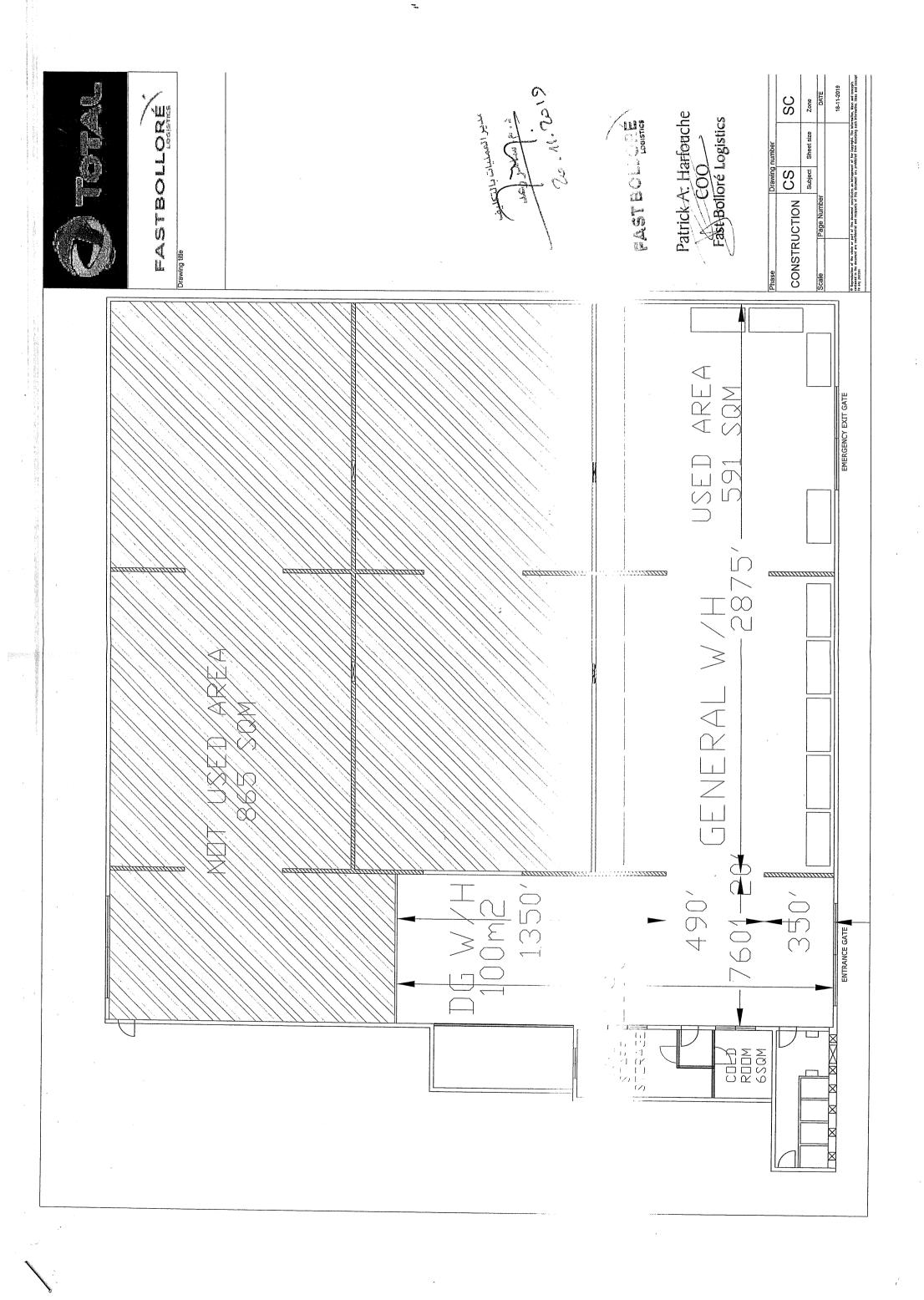
د. مرسسر رعد

FAST BOLLORÉ

Patrick A Harfouche

Bolloré Logistics









# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 4.3 MODU Tungsten Explorer Certificates









**DNV-GL** 

### INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE

Certificate No: n1167564-wcc DNV GL Id No: 37721 Date of issue: 2018-07-01

Issued under the provisions of the Protocol of 1997, as amended by resolution MEPC.176(58) in 2008, to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 related thereto (hereinafter referred to as "the Convention") under the authority of the Government of

#### THE COMMONWEALTH OF THE BAHAMAS

by DNV GL

#### Particulars of Ship

Name of Ship: TUNGSTEN EXPLORER

Distinctive Number or Letters: C6ZF4

Port of Registry: NASSAU

Gross Tonnage: 68486

IMO Number: 9631735

#### This is to certify:

- That the ship has been surveyed in accordance with regulation 5 of Annex VI of the Convention;
- 2. That the survey shows that the equipment, systems, fittings, arrangements and materials fully comply with the applicable requirements of Annex VI of the Convention.

This Certificate is valid until **2023-07-10** subject to surveys in accordance with Regulation 5 of Annex VI of the Convention.

DNVG

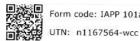
Completion date of survey on which this Certificate is based: 2018-07-01

Issued at Pointe Noire, Congo on 2018-07-01



This document is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication can be obtained from trust.dnvgl.com by using the Unique Tracking Number (UTN): n1167564-wcc and ID: 37721

Bryan Steven Gale Surveyor



Form code: IAPP 101a Revision: 2018-06 www.dnvgl.com Page 1 of 8

Certificate No: **n1167564-wcc** Date of issue: **2018-07-01** 

| <b>Endorsement for annu</b> | al and | intermediate | surveys |
|-----------------------------|--------|--------------|---------|
|-----------------------------|--------|--------------|---------|

THIS IS TO CERTIFY:

that, at a survey required by Regulation 5 of Annex VI of the Convention, the ship was found to comply with the relevant provisions of that Annex.

| Signature: Ashraf Belal Surveyor, DNV GL  Annual/Intermediate¹ survey: Place: Date:  Stamp Surveyor, DNV GL  Annual/Intermediate¹ survey: Place: Date:  Stamp Surveyor, DNV GL  Annual survey: Place: Signature:  Stamp Surveyor, DNV GL  Annual survey: Place: Date:  Stamp Surveyor, DNV GL  Annual survey: Place: Date:  Stamp Surveyor, DNV GL  Annual survey: Date:  Stamp Date: Date:  Signature: Date:  Signature: Date: Date:  Signature: Date: Date | Annual survey:   | Place:  | Alexandria Inner Anchorage,<br>Iskandariyah, Egypt  | AI Date: 2019-09-05                                  |  |
|--|--|---------|---|--|--|
| Stamp Survey: Place: Signature:  Stamp Surveyor, DNV GL  Annual/Intermediate¹ survey: Place: Date:  Signature: Signature:  Stamp Surveyor, DNV GL  Annual survey: Place: Date:  Signature: Surveyor, DNV GL  Annual survey: Place: Signature:  Stamp Surveyor, DNV GL  Annual survey: Nurveyor, DNV GL  Annual/intermediate survey in accordance with Regulation 9.8.3  THIS IS TO CERTIFY that, at an annual/intermediate¹ survey in accordance with Regulation 9.8.3 of Annex VI of the Convention, the ship was found to comply with the relevant provisions of that Annex.   | 18 64 PRODUCTION OF THE PRODUC |         | Signature:  |  |  |
| Stamp Surveyor, DNV GL  Annual/Intermediate¹ survey: Place: Date:  Signature: Surveyor, DNV GL  Annual survey: Place: Signature: Date:  Signature: Surveyor, DNV GL  Annual survey: Place: Date:  Signature: Surveyor, DNV GL  Annual/intermediate survey in accordance with Regulation 9.8.3  THIS IS TO CERTIFY that, at an annual/intermediate¹ survey in accordance with Regulation 9.8.3 of Annex VI of the Convention, the ship was found to comply with the relevant provisions of that Annex.  |  | Place:  |   | Date:  |  |
| Annual/Intermediate¹ survey: Place: Date:  Signature: Stamp Surveyor, DNV GL  Annual survey: Place: Date:  Signature: Signature: Date:  Signature: Stamp Surveyor, DNV GL  Annual survey: Place: Date:   |  |         | Signature:  |  |  |
| Stamp Surveyor, DNV GL  Annual survey: Place: Date:  Signature: Date:  Signature: Date:  Signature: Signature:  Stamp Surveyor, DNV GL  Annual/intermediate survey in accordance with Regulation 9.8.3  THIS IS TO CERTIFY that, at an annual/intermediate¹ survey in accordance with Regulation 9.8.3 of Annex VI of the Convention, the ship was found to comply with the relevant provisions of that Annex.   | Stamp  |         |   | Surveyor, DNV GL                                     |  |
| Stamp Surveyor, DNV GL  Annual survey: Place: Date:  Signature: Stamp Surveyor, DNV GL  Annual/intermediate survey in accordance with Regulation 9.8.3  THIS IS TO CERTIFY that, at an annual/intermediate¹ survey in accordance with Regulation 9.8.3 of Annex VI of the Convention, the ship was found to comply with the relevant provisions of that Annex.   |  | Place:  |   | Date:  |  |
| Annual survey: Place: Signature:  Stamp Surveyor, DNV GL  Annual/intermediate survey in accordance with Regulation 9.8.3  THIS IS TO CERTIFY that, at an annual/intermediate¹ survey in accordance with Regulation 9.8.3 of Annex VI of the Convention, the ship was found to comply with the relevant provisions of that Annex.   |  |         | Signature:  |  |  |
| Stamp  Surveyor, DNV GL  Annual/intermediate survey in accordance with Regulation 9.8.3  THIS IS TO CERTIFY that, at an annual/intermediate¹ survey in accordance with Regulation 9.8.3 of Annex VI of the Convention, the ship was found to comply with the relevant provisions of that Annex.  | Stamp  |         |   | Surveyor, DNV GL                                     |  |
| Annual/intermediate survey in accordance with Regulation 9.8.3  THIS IS TO CERTIFY that, at an annual/intermediate¹ survey in accordance with Regulation 9.8.3 of Annex VI of the Convention, the ship was found to comply with the relevant provisions of that Annex.   | Annual survey:   | Place:  |   | Date:  |  |
| Annual/intermediate survey in accordance with Regulation 9.8.3  THIS IS TO CERTIFY that, at an annual/intermediate <sup>1</sup> survey in accordance with Regulation 9.8.3 of Annex VI of the Convention, the ship was found to comply with the relevant provisions of that Annex.   |  |         | Signature:  |  |  |
| THIS IS TO CERTIFY that, at an annual/intermediate¹ survey in accordance with Regulation 9.8.3 of Annex VI of the Convention, the ship was found to comply with the relevant provisions of that Annex.   | Stamp  |         |   | Surveyor, DNV GL                                     |  |
| Annex VI of the Convention, the ship was found to comply with the relevant provisions of that Annex.   | Annual/intermediate  | surve   | ey in accordance with Regula  | tion 9.8.3   |  |
|  | THIS IS TO CERTIFY that, at Annex VI of the Convention,  | an annu | ual/intermediate <sup>1</sup> survey in accordance<br>was found to comply with the relevant | with Regulation 9.8.3 of t provisions of that Annex. |  |
|  |  | Place:  | 9 0   | Date:  |  |
| Signature:   |  |         | Signature:  |  |  |
| Stamp Surveyor, DNV GL   | Stamp  |         |   | Surveyor, DNV GL                                     |  |

Form code: IAPP 101a Revision: 2018-06 www.dnvgl.com Page 2 of 8

Delete as appropriate.

## Endorsement to extend the Certificate if valid for less than 5 years where Regulation 9.3 applies

| The ship complies was cordance with Re       | with the relevant provisions of the gulation 9.3 of Annex VI of the C | e Annex, and this Certificate shall, in convention, be accepted as valid until |
|--|---|--|
|  | Place:  | Date:  |
|  |   | Signature:   |
| Stamp  |   | Surveyor, DNV GL   |
| Endorsement v<br>9.4 applies                 | where the renewal surve   | ey has been completed and Regulation   |
|  |   | e Annex, and this Certificate shall, in onvention, be accepted as valid until  |
|  | Place:  | Date:  |
|  |   |  |
| Stamp  |   | Signature: Surveyor, DNV GL  |
|  |   | the Certificate until reaching the port<br>e Regulation 9.5 or 9.6 applies     |
| This Certificate shal<br>Convention, be acce | ll, in accordance with Regulation epted as valid until                | 9.5 or 9.6 <sup>1</sup> of Annex VI of the                                     |
|  | Place:  | Date:  |
|  |   |  |
|  |   | Signature:   |
| Stamp  |   | Surveyor, DNV GL   |

Form code: IAPP 101a Revision: 2018-06 www.dnvgl.com Page 3 of 8

## Endorsement for advancement of anniversary date where Regulation 9.8 applies

| In accordance with R date is            | Regulation 9.8 of Annex VI o | of the Convention, the new anniversary |
|---|------------------------------|--|
|   | Place:                       | Date:                                  |
|   |                              | Signature:                             |
| Stamp                                   |                              | Surveyor, DNV GL                       |
| In accordance with R date is            | egulation 9.8 of Annex VI o  | of the Convention, the new anniversary |
|   | Place:                       | Date:                                  |
|   |                              | Signature:                             |
| Stamp                                   |                              | Surveyor, DNV GL                       |
| 202000000000000000000000000000000000000 |                              |  |

Form code: IAPP 101a Revision: 2018-06 www.dnvgl.com Page 4 of 8

## SUPPLEMENT TO INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE

(IAPP CERTIFICATE)

1.

Particulars of ship

#### RECORD OF CONSTRUCTION AND EQUIPMENT

In respect of the provisions of Annex VI of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (hereinafter referred to as "the Convention").

This Record shall be permanently attached to the IAPP Certificate. The IAPP Certificate shall be available on board the ship at all times.

The Record shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in case of a dispute or discrepancy.

Entries in boxes shall be made by inserting either a cross (x) for the answers "yes" and "applicable" or a dash (-) for the answers "no" and "not applicable" as appropriate.

Unless otherwise stated, regulations mentioned in this Record refer to regulations of Annex VI of the Convention and resolutions or circulars refer to those adopted by the International Maritime Organization.

| of Ship:                                 | TUNGSTEN EX   | (PLORER  |
|--|---|--|
| umber:                                   | 9631735   |  |
|  |   |  |
| n of Ship: 2                             | N/A m   |  |
| Control of emi                           | ssions from ships   |  |
| The following fire-e depleting substance | xtinguishing systems, other systeres, other than hydro-chlorofluoroca   | ns and equipment containing ozone-   |
|  | Location on board   | Substance  |
|  |   | ro-chlorofluorocarbons (HCFCs) installed   |
|  | Location on board   | Substance  |
|  | - 1   |  |
|  | control of emi  Control of emi  Ozone-depleting The following fire-edepleting substance 2005 may continue mequipment  The following syste | umber:  on which keel was laid or ship was at r stage of construction:  on of Ship:   Control of emissions from ships  Ozone-depleting substances (Regulation 12) The following fire-extinguishing systems, other system depleting substances, other than hydro-chlorofluoroca 2005 may continue in service:  m equipment  Location on board  The following systems and equipment containing hydrobefore 1 January 2020 may continue in service: |

Form code: IAPP 101a Revision: 2018-06 www.dnvgl.com Page 5 of 8

Completed only in respect of ships constructed on or after 1 January 2016 that are specially designed, and used solely, for recreational purposes and to which, in accordance with regulation 13.5.2.1 or regulation 13.5.2.3, the NOx emission limit as given by regulation 13.5.1.1 will not apply.

#### 2.2 Nitrogen Oxides (NOx) (Regulation 13)

2.2.1 The following marine diesel engines installed on this ship are in accordance with the requirements of regulation 13, as indicated:

| (NT | Applicable regulation of MARPOL Annex VI<br>(NTC = NOX Technical Code 2008)<br>(AM = Approved Method) |   | Engine<br>#1                        | Engine<br>#2                        | Engine<br>#3                        | Engine<br>#4                        | Engine<br>#5                        | Engine<br>#6                        |
|-----|---|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 1   | Manufacturer and  | l model                                   | STX Engine<br>Co., Ltd.<br>14V32/40 |
| 2   | Serial Number  Use (applicable application cycle(s) –  NTC 3.2)                                       |   | 11912 11913 11                      | SB14V32-<br>11914 SB14V32-<br>11915 | SB14V32-<br>11916                   | SB14V32-<br>11917                   |                                     |                                     |
| 3   |   |   |                                     | E2                                  | E2                                  | E2                                  | E2                                  | E2                                  |
| 4   | Rated power (kW) (NTC 1.3.11)   |   | 7000                                | 7000                                | 7000                                | 7000                                | 7000                                | 7000                                |
| 5   | Rated speed (RPM) (NTC 1.3.12)  |   | 720                                 | 720                                 | 720                                 | 720                                 | 720                                 | 720                                 |
| 6   |   |   |                                     |                                     |                                     |                                     |                                     |                                     |
| 7   | Identical engine in as per 13.1.1.2 (y  |   |                                     |                                     |                                     |                                     |                                     |                                     |
| 8a  |   | 13.2.1.1 & 13.2.2                         | 70,000 00.00                        |                                     | -                                   |                                     |                                     |                                     |
| 8b  | (yyyy-mm-dd)  | 13.2.1.2 & 13.2.3                         |                                     |                                     |                                     |                                     |                                     | MOTO -                              |
| 8c  |   | 13.2.1.3 & 13.2.3                         |                                     |                                     |                                     |                                     |                                     |                                     |
| 9a  | Tier I  | 13.3                                      |                                     |                                     |                                     |                                     |                                     |                                     |
| 9b  |   | 13.2.2                                    |                                     |                                     |                                     |                                     |                                     |                                     |
| 9c  |   | 13.2.3.1                                  |                                     |                                     |                                     |                                     |                                     |                                     |
| 9d  |   | 13.2.3.2                                  |                                     |                                     |                                     |                                     |                                     |                                     |
| 9e  |   | 13.7.1.2                                  |                                     |                                     |                                     |                                     |                                     |                                     |
| 10a | Tier II   | 13.4                                      | $\boxtimes$                         | $\boxtimes$                         | $\boxtimes$                         | $\boxtimes$                         | $\boxtimes$                         | $\boxtimes$                         |
| 10b |   | 13.2.2                                    |                                     |                                     |                                     |                                     |                                     |                                     |
| 10c |   | 13.2.2<br>(Tier III not possible)         |                                     |                                     |                                     |                                     |                                     |                                     |
| 10d |   | 13.2.3.2                                  |                                     |                                     |                                     |                                     |                                     |                                     |
| 10e |   | 13.5.2 (Exemptions)                       |                                     |                                     |                                     |                                     |                                     |                                     |
| 10f |   | 13.7.1.2                                  |                                     |                                     |                                     |                                     |                                     |                                     |
| 11a | Tier III  | 13.5.1.1                                  |                                     |                                     |                                     |                                     |                                     |                                     |
| 11b | (ECA-NOx only)  | 13.2.2                                    |                                     |                                     |                                     |                                     |                                     |                                     |
| 11c |   | 13.2.3.2                                  |                                     |                                     |                                     |                                     |                                     |                                     |
| 11d |   | 13.7.1.2                                  |                                     |                                     |                                     |                                     |                                     |                                     |
| 12  | AM <sup>3</sup>   | installed                                 |                                     |                                     |                                     |                                     |                                     |                                     |
| 13  |   | not commercially available at this survey |                                     |                                     |                                     |                                     |                                     |                                     |
| 14  |   | not applicable                            |                                     |                                     |                                     |                                     |                                     |                                     |
|     |   |   |                                     |                                     |                                     |                                     |                                     |                                     |

#### 2.3 Sulphur Oxides (SOx) and particulate matter (Regulation 14)

- 2.3.1 When the ship operates outside of an Emission Control Area specified in regulation 14.3, the ship uses:
- 2.3.1.1 fuel oil with a sulphur content as documented by bunker delivery notes that does not exceed the limit value of:
  - 4.50% m/m (not applicable on or after 1 January 2012); or
  - 3.50% m/m (not applicable on or after 1 January 2020); or
  - 0.50% m/m, and/or

Form code: IAPP 101a Revision: 2018-06 www.dnvgl.com Page 6 of 8

Refer to the 2014 Guidelines on the approved method process (resolution MEPC.243(66)).

| System           | n or equipment                                   | Equivalent used  | Approval reference   |     |
|------------------|--|--|--|-----|
| ship or require  | other procedures, alted by this Annex:           | use the following fitting, mater<br>rnative fuel oils, or compliance | ial, appliance or apparatus to be fitted in<br>methods used as an alternative to that    | ı a |
| 2.3.2.3          | does not comply with                             | resolution MEPC.59(55) of Test                                       | nution MEPC.70(40)   | L   |
|                  |  | resolution MEPC.59(33) or reso                                       | olution MEPC 76(40)  | ŀ   |
|                  |  | on MEPC.76(40), as amended <sup>5</sup>                              |  | ŀ   |
|                  | installed before 1 Jan                           | uary 2000 which<br>on MEPC.59(33), as amended <sup>6</sup>           |  | Γ   |
|                  | resolution MEPC.244(                             |  |  | L   |
|                  | resolution MEPC.76(4                             |  |  | Ļ   |
| 2.5.1            |  | January 2000 which complies  | vith:  | r   |
| 2.5              | The ship has an incin                            |  |  |     |
| 2.4.2.2          | 2 VOC Management Pla                             | n approval reference: -  |  | L   |
|                  |  | crude oil, there is an approved                                      | VOC Management Plan  | [   |
| 2.4.1            | MSC/Circ.585 (4);                                | our conection system instaned a                                      | ind approved in accordance with Ino  | [   |
| <b>2.4</b> 2.4.1 |  | ompounds (VOCs) (Regulary sollection system installed                | ation 15) and approved in accordance with IMO  | ı   |
| •                | 0.10% m/m  |  |  |     |
| •                | 1.00% m/m (not app                               | licable on or after 1 January 20                                     | 15); or  |     |
| 2.3.2.2          |  | terms of SO <sub>x</sub> emission reducti                            | with regulation 4.1 as listed in 2.6 that it<br>ons as compared to using a fuel oil with |     |
|                  | 0.10% m/m, and/or                                |  |  |     |
| •                |  | licable on or after 1 January 20                                     | 15); or  |     |
| 2.3.2.1          | l fuel oil with a sulphur<br>the limit value of: | content as documented by bur   | ker delivery notes that does not exceed  |     |
|                  | uses:  |  |  |     |
| 2.3.2            |  | es inside an Emission Control A                                      | rea specified in regulation 14.3, the ship   | )   |
| •                | 3.50% m/m (not app<br>0,50% m/m                  | licable on or after 1 January 20                                     | 20); or  |     |
| •                |  | licable on or after 1 January 20                                     |  |     |
|                  | sulphur content limit                            |  |  | ,   |
|                  |  |  | ons as compared to using a fuel oil with   |     |

Form code: IAPP 101a Revision: 2018-06 www.dnvgl.com Page 7 of 8

<sup>4</sup> Ships with DNV GL Class notation VCS-1 or VCS-2 (compliance with USCG CFR 46 Part 39) comply with IMO MSC/Circ.585.

S As amended by resolution MEPC.93(45)

<sup>6</sup> As amended by resolution MEPC.92(45)

THIS IS TO CERTIFY that this Record is correct in all respects.

#### Issued at Pointe Noire, Congo on 2018-07-01



#### for DNV GL

This document is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication can be obtained from trust.dnvgl.com by using the Unique Tracking Number (UTN): n1167564-wcc and ID: 37721

Bryan Steven Gale Surveyor

Form code: IAPP 101a Revision: 2018-06 www.dnvgl.com Page 8 of 8

# SUPPLEMENT TO INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE

(IAPP CERTIFICATE)

1.

Particulars of ship

#### RECORD OF CONSTRUCTION AND EQUIPMENT

In respect of the provisions of Annex VI of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (hereinafter referred to as "the Convention").

This Record shall be permanently attached to the IAPP Certificate. The IAPP Certificate shall be available on board the ship at all times.

The Record shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in case of a dispute or discrepancy.

Entries in boxes shall be made by inserting either a cross (x) for the answers "yes" and "applicable" or a dash (-) for the answers "no" and "not applicable" as appropriate.

Unless otherwise stated, regulations mentioned in this Record refer to regulations of Annex VI of the Convention and resolutions or circulars refer to those adopted by the International Maritime Organization.

| Name                         | of Ship:  | TUNGSTEN E  | XPLORER   |
|------------------------------|---|---|---|
| IMO N                        | umber:  | 9631735   |   |
| Date o                       | on which keel was lai<br>r stage of constructio | d or ship was at on: 2012-04-30                                 |   |
| Length of Ship: <sup>2</sup> |   | N/A m   |   |
| 2.                           | Control of emi                                  | issions from ships  |   |
| <b>2.1</b> 2.1.1 System      | The following fire-e                            | es, other than hydro-chlorofluoroc                              | ms and equipment containing ozone-<br>arbons (HCFCs), installed before 19 May - |
| - •                          | - одаржен                                       | Location on board   | Substance   |
| 2.1.2                        | The following syste<br>before 1 January 20      | ms and equipment containing hyd<br>020 may continue in service: | ro-chlorofluorocarbons (HCFCs) installed  |
|                              | n equipment                                     | Location on board   | Substance   |

Form code: IAPP 101a Revision: 2018-06 www.dnvgl.com Page 5 of 8

Completed only in respect of ships constructed on or after 1 January 2016 that are specially designed, and used solely, for recreational purposes and to which, in accordance with regulation 13.5.2.1 or regulation 13.5.2.3, the NOx emission limit as given by regulation 13.5.1.1 will not apply.

#### 2.2 Nitrogen Oxides (NOx) (Regulation 13)

2.2.1 The following marine diesel engines installed on this ship are in accordance with the

| (NTC = NOX Technical Code 2008)  (AM = Approved Method)  1  | ngine<br>1<br>TX Engine<br>o., Ltd.<br>4V32/40<br>B14V32-<br>1912<br>2 | Engine<br>#2<br>STX Engine<br>Co., Ltd.<br>14V32/40<br>SB14V32-<br>11913<br>E2<br>7000<br>720  | Engine<br>#3<br>STX Engine<br>Co., Ltd.<br>14V32/40<br>SB14V32-<br>11914<br>E2 | Engine<br>#4<br>STX Engine<br>Co., Ltd.<br>14V32/40<br>SB14V32-<br>11915 | Co., Ltd.<br>14V32/40<br>SB14V32-<br>11916 | Engine<br>#6<br>STX Engine<br>Co., Ltd.<br>14V32/40<br>SB14V32-<br>11917 |
|---|--|--|--|--|--|--|
| 2 Serial Number  Single Serial Number  Experiment Single Serial S | o., Ltd.<br>4V32/40<br>B14V32-<br>1912<br>2                            | Co., Ltd.<br>14V32/40<br>SB14V32-<br>11913<br>E2   | Co., Ltd.<br>14V32/40<br>SB14V32-<br>11914<br>E2                               | Co., Ltd.<br>14V32/40<br>SB14V32-<br>11915                               | Co., Ltd.<br>14V32/40<br>SB14V32-<br>11916 | Co., Ltd.<br>14V32/40<br>SB14V32-  |
| 3 Use (applicable application cycle(s) - NTC 3.2) 4 Rated power (kW) (NTC 1.3.11) 76 5 Rated speed (RPM) (NTC 1.3.12) 72 6 Identical engine installed ≥ 2000-01-01 exempted by 13.1.1.2 7 Identical engine installation date as per 13.1.1.2 (yyyy-mm-dd) 8a Major Conversion 13.2.1.1 & 13.2.2   | 1912<br>2<br>000<br>20   | 11913<br>E2<br>7000  | 11914<br>E2  | 11915  | 11916                                      |  |
| NTC 3.2)  4 Rated power (kW) (NTC 1.3.11)  5 Rated speed (RPM) (NTC 1.3.12)  6 Identical engine installed ≥ 2000-01-01 exempted by 13.1.1.2  7 Identical engine installation date as per 13.1.1.2 (yyyy-mm-dd)  8a Major Conversion 13.2.1.1 & 13.2.2   | 000<br>20  | 7000   | 0.0000   | E2   |  |  |
| 5 Rated speed (RPM) (NTC 1.3.12) 73 6 Identical engine installed ≥ 2000-01-01 exempted by 13.1.1.2 7 Identical engine installation date as per 13.1.1.2 (yyyy-mm-dd) 8a Major Conversion 13.2.1.1 & 13.2.2  | 20   | COLUMN CO | 7000   |  | E2   | E2   |
| 6 Identical engine installed ≥ 2000-01-01 exempted by 13.1.1.2 7 Identical engine installation date as per 13.1.1.2 (yyyy-mm-dd) 8a Major Conversion 13.2.1.1 & 13.2.2  |  | 720  | 1000   | 7000   | 7000                                       | 7000   |
| exempted by 13.1.1.2  7 Identical engine installation date as per 13.1.1.2 (yyyy-mm-dd)  8a Major Conversion 13.2.1.1 & 13.2.2  |  | - <del></del>  | 720  | 720  | 720  | 720  |
| as per 13.1.1.2 (yyyy-mm-dd)<br>8a Major Conversion 13.2.1.1 & 13.2.2   |  |  |  |  |  |  |
|   |  |  |  |  |  |  |
| or (www-mm-dd) +2242222   |  |  |  |  | 11003-1-14                                 |  |
| 8b (yyyy-mm-dd) 13.2.1.2 & 13.2.3   |  |  |  |  |  |  |
| 8c 13.2.1.3 & 13.2.3  |  |  |  |  |  |  |
| 9a Tier I 13.3  | ]  |  |  |  |  |  |
| 9b 13.2.2   |  |  |  |  |  |  |
| 9c 13.2.3.1   |  |  |  |  |  |  |
| 9d 13.2.3.2   |  |  |  |  |  |  |
| 9e 13.7.1.2   | ]  |  |  |  |  |  |
| 10a Tier II 13.4  | 3  |  | $\boxtimes$  |  |  | $\boxtimes$  |
| 10b 13.2.2  |  |  |  |  |  |  |
| 10c 13.2.2 (Tier III not possible)  |  |  |  |  |  |  |
| 10d 13.2.3.2  | ]  |  |  |  |  |  |
| 10e 13.5.2 (Exemptions)   | ]  |  |  |  |  |  |
| 10f 13.7.1.2  | ]  |  |  |  |  |  |
| 11a Tier III 13.5.1.1   |  |  |  |  |  |  |
| 11b (ECA-NOx only) 13.2.2   | ]  |  |  |  |  |  |
| 11c 13.2.3.2  | ]  |  |  |  |  |  |
| 11d 13.7.1.2  | ]  |  |  |  |  |  |
| 12 AM <sup>3</sup> installed  |  |  |  |  |  |  |
| not commercially available at this survey   |  |  |  |  |  |  |
| 14 not applicable   |  |  |  |  |  |  |

#### 2.3 Sulphur Oxides (SOx) and particulate matter (Regulation 14)

- 2.3.1 When the ship operates outside of an Emission Control Area specified in regulation 14.3, the ship uses:
- 2.3.1.1 fuel oil with a sulphur content as documented by bunker delivery notes that does not exceed the limit value of:
  - 4.50% m/m (not applicable on or after 1 January 2012); or
  - 3.50% m/m (not applicable on or after 1 January 2020); or
  - 0.50% m/m, and/or

Refer to the 2014 Guidelines on the approved method process (resolution MEPC.243(66)).

Form code: IAPP 101a Revision: 2018-06 www.dnvgl.com Page 6 of 8

| 2.5.1 | installed on or after 1 Jan resolution MEPC.76(40), a   | 50 40 11 11 11 11 11 11 11 11 11 11 11 11 11  |   |             |
|-------|---|---|---|-------------|
| 2.5   | Shipboard Incinerati<br>The ship has an incinerato  | or:   |   |             |
|       | MSC/Circ.585 (4):   | collection system installed and ap<br>le oil, there is an approved VOC N<br>proval reference: - |   | -<br>-<br>- |
| 2.4   | 0.10% m/m   | pounds (VOCs) (Regulation   |   | -           |
|       | 0.10% m/m, and/or<br>an equivalent arrangemer<br>at least as effective in ter<br>sulphur content limit valu | nt approved in accordance with re<br>ms of SO <sub>x</sub> emission reductions as               | egulation 4.1 as listed in 2.6 that is<br>compared to using a fuel oil with a | <b>x</b>    |
|       | uses:<br>fuel oil with a sulphur con<br>the limit value of:   | 30  | ecified in regulation 14.3, the ship elivery notes that does not exceed       | <u>-</u>    |
|       | sulphur content limit valu<br>4.50% m/m (not applicab<br>3.50% m/m (not applicab                            | ms of SO <sub>x</sub> emission reductions as  |   |             |

Form code: IAPP 101a Revision: 2018-06 www.dnvgl.com Page 7 of 8

Ships with DNV GL Class notation VCS-1 or VCS-2 (compliance with USCG CFR 46 Part 39) comply with IMO MSC/Circ.585.

<sup>5</sup> As amended by resolution MEPC.93(45)

<sup>6</sup> As amended by resolution MEPC.92(45)

DNV-GL

# INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE

This Certificate shall be supplemented by a Record of Construction and Equipment

Certificate No: n1167564-ufy
DNV GL Id No: 37721
Date of issue: 2018-07-01

Issued under the provisions of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, as amended, (hereinafter referred to as "the Convention")

under the authority of the Government of

#### THE COMMONWEALTH OF THE BAHAMAS

by DNV GL

| Particulars of Snip                        |   |
|--|---|
| Name of Ship:                              | TUNGSTEN EXPLORER   |
| Distinctive Number or Letters:             | C6ZF4   |
| Port of Registry:                          | NASSAU  |
| Gross Tonnage:                             | 68486   |
| Deadweight of ship (metric tons) $^1$ :    |   |
| IMO Number:                                | 9631735   |
| Type of Ship:2                             |   |
| - Oil tanker                               |   |
| Ship other than an oi Annex I of the Conve | I tanker with cargo tanks coming under Regulation 2(2) of ntion |
| X Ship other than any o                    | of the above  |
| This is to certify:                        |   |

- 1. That the ship has been surveyed in accordance with Regulation 6 of Annex I of the Convention.
- 2. That the survey shows that the structure, equipment, systems, fittings, arrangements and material of the ship and the condition thereof are in all respects satisfactory and that the ship complies with the applicable requirements of Annex I of the Convention.

Form code: IOPP 501a

Entries in boxes shall be made by inserting either a cross (x) for the answers 'yes' and 'applicable' or a dash (-) for the answers 'no' and 'not applicable' as appropriate.



UTN: n1167564-ufy © DNV GL 2014, DNV GL and the Horiz

Revision: 2017-09

www.dnvgl.com

Page 1 of 5

For oil tankers

This Certificate is valid until **2023-07-10**  $^3$  subject to surveys in accordance with Regulation 6 of Annex I of the Convention.

Completion date of survey on which this Certificate is based: 2018-07-01

Issued at Pointe Noire, Congo on 2018-07-01



#### for DNV GL

This document is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication can be obtained from trust.dnvgl.com by using the Unique Tracking Number (UTN): n1167564-ufy and ID: 37721

#### Bryan Steven Gale Surveyor

Form code: IOPP 501a Revision: 2017-09 www,dnvgl,com Page 2 of 5

Insert the date of expiry as specified by the Administration in accordance with Regulation 10.1 of Annex I of the Convention. The day and the month of this date correspond to anniversary date as defined in Regulation 1.27 of Annex I of the Convention, unless amended in accordance with Regulation 10.8 of Annex I of the Convention.

| Endorsement | for | annual | and | intermediate | surveys |
|-------------|-----|--------|-----|--------------|---------|
|-------------|-----|--------|-----|--------------|---------|

THIS IS TO CERTIFY:

that, at a survey required by regulation 6 of Annex I of the Convention, the ship was found to comply with the relevant provisions of the Convention.

| Annual survey:  | Alexa<br>Place: Iskan               | ndria Inner Anchorage,<br>dariyah, Egypt | AI<br>Date:                | 2019-09-05 |
|---|-------------------------------------|--|----------------------------|------------|
| WANDER DAY  |                                     | Signature:                               | <b>Ashraf</b><br>Surveyor, |            |
| Annual/Intermediate <sup>4</sup> survey:                                    | Place:                              |  | Date:                      |            |
| Stamp   |                                     | Signature:                               | S.,,,,,,,,,,,,,,,,         | DNIV CI    |
| Stamp   |                                     |  | Surveyor,                  | DINV GL    |
| Annual/Intermediate <sup>4</sup> survey:                                    | Place:                              |  | Date:                      |            |
|   |                                     | Signature:                               |                            |            |
| Stamp   |                                     |  | Surveyor,                  | DNV GL     |
| Annual survey:  | Place:                              |  | Date:                      |            |
|   |                                     | Signature:                               |                            |            |
| Stamp   |                                     |  | Surveyor,                  | DNV GL     |
|   | te survey in a                      | accordance with regula                   | ntion 10.8.3               | 1.6        |
| THIS IS TO CERTIFY: that, at an annual/intermonder convention, the ship was | ediate4 survey in found to comply v | accordance with regulation 10.           | .8.3 of Annex I            | of the     |
|   | Place:                              |  | Date:                      |            |
|   |                                     | Signature:                               |                            |            |
| Stamp   |                                     |  | Surveyor,                  | DNV GL     |
|   |                                     |  |                            |            |

Form code: IOPP 501a Revision: 2017-09 www.dnvgl.com Page 3 of 5

Delete as appropriate.

## Endorsement to extend the Certificate if valid for less than 5 years where regulation 10.3 applies

| The ship complies with the relevant provisions of the shall, in accordance with regulation 10.3 of Annex valid until   | ne Convention, and this Certificate  I of the Convention, be accepted as  |
|--|---|
| Place:   | Date:   |
|  | Signature:  |
| Stamp  | Surveyor, DNV GL  |
| Endorsement where the renewal surv 10.4 applies  | ey has been completed and regulation                                      |
| The ship complies with the relevant provisions of the shall, in accordance with regulation 10.4 of Annex I valid until | e Convention, and this Certificate  of the Convention, be accepted as     |
| Place:   | Date:   |
|  | Signature:  |
| Stamp  | Surveyor, DNV GL  |
| Endorsement to extend the validity of of survey or for a period of grace whe   | the Certificate until reaching the porter regulation 10.5 or 10.6 applies |
| This Certificate shall, in accordance with regulation Convention, be accepted as valid until                           | 10.5 or 10.6 <sup>4</sup> of Annex I of the                               |
| Place:   | Date:   |
| Stomp  | Signature:  |
| Stamp  | Surveyor, DNV GL  |

Form code: IOPP 501a Revision: 2017-09 www.dnvgl.com Page 4 of 5

Surveyor, DNV GL

# Endorsement for advancement of anniversary date where regulation 10.8 applies In accordance with regulation 10.8 of Annex I of the Convention, the new anniversary date is Place: Date: Signature: Stamp Surveyor, DNV GL In accordance with regulation 10.8 of Annex I of the Convention, the new anniversary date is Place: Date:

Stamp

Signature:

Form code: IOPP 501a Revision: 2017-09 www.dnvgl.com Page 5 of 5

**DNV·GL** 

# SUPPLEMENT TO THE INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE (IOPP CERTIFICATE)

Certificate No: n1167564-gud DNV GL Id No: 37721 Date of issue: 2018-07-01

# RECORD OF CONSTRUCTION AND EQUIPMENT FOR SHIPS OTHER THAN OIL TANKERS (FORM A)

in respect of the provisions of Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (hereinafter referred to as "the Convention").

This form is to be used for the third type of ships as categorized in the IOPP Certificate, i.e. "ships other than any of the above". For oil tankers and ships other than oil tankers with cargo tanks coming under Regulation 2.2 of Annex I of the Convention, Form B shall be used.

This Record shall be permanently attached to the IOPP Certificate. The IOPP Certificate shall be available on board the ship at all times.

Entries in boxes shall be made by inserting either a cross (x) for the answers "yes" and "applicable" or a dash (-) for the answers "no" and "not applicable" as appropriate.

Regulations mentioned in this Record refer to Regulations of Annex I of the Convention and resolutions refer to those adopted by the International Maritime Organization.

| 1.    | Particulars of Ship   |  |  |                    |
|-------|---|--|--|--------------------|
| 1.1   | Name of ship  | "TUNGSTER  | N EXPLORER"  |                    |
| 1.2   | Distinctive number or letters                               | C6ZF4  |  |                    |
|       | IMO number  | 9631735  |  |                    |
| 1.3   | Port of registry  | NASSAU   |  |                    |
| 1.4   | Gross tonnage   | 68486  |  |                    |
| 1.5   | Date of build:  |  |  |                    |
| 1.5.1 | Date of building contract:                                  | 2011-05-09   | •  |                    |
| 1.5.2 | Date on which keel was laid a similar stage of construction |  | )  |                    |
| 1.5.3 | Date of delivery:   | 2013-07-11   | L  |                    |
| 1.6   | Major conversion (if applicab                               | ole):  |  |                    |
| 1.6.1 | Date of conversion contract:                                | N/A  |  |                    |
| 1.6.2 | Date on which conversion was commenced:                     | n/A  |  |                    |
| 1.6.3 | Date of completion of conver                                | rsion: N/A   |  |                    |
| 1.7   | The ship has been accepted December 1979" under Regu        | by the administration as a "<br>llation 1.28.1 due to unfore | ship delivered on or before a seen delay in delivery | 31                 |
| 2.    | Equipment for the cont fuel tanks (Regulations 16           | rol of oil discharge fro                                     | m machinery space bilg                               | ges and oil        |
| 2.1   | Carriage of ballast water in o                              | oil fuel tanks   |  |                    |
| 2.1.1 | The ship may under normal of                                | conditions carry ballast wate                                | er in oil tanks                                      |                    |
| 2.2   | Type of oil filtering equipmen                              |  |  |                    |
|       | Form code: IOPP 503a  | Revision: 2017-09  | www.dnvgl.com  | Page 1 of 4        |
|       | UTN: n1167564-gud   | © DNV GL 2014. DNV 6   | GL and the Horizon Graphic are tradema               | arks of DNV GL AS. |

| 2.2.1   | Oil filtering (15 ppm) equipment (Re  |                     |                             |                     |  |
|---------|---|---------------------|-----------------------------|---------------------|--|
| 2.2.2   | Oil filtering (15 ppm) equipment with alarm and automatic stopping device (Regulation 14.7) |                     |                             |                     |  |
| 2.3     | Approval standards  |                     |                             | X                   |  |
| 2.3.1   | The separating / filtering equipment  |                     |                             |                     |  |
| 2.5.1   | .1 has been approved in accorda   |                     | ion A 303/V) 1              |                     |  |
|         | .2 has been approved in accordan  |                     |                             | =                   |  |
|         | .3 has been approved in accordan  |                     |                             |                     |  |
|         | .4 has been approved in accordan  |                     |                             |                     |  |
|         | .5 has been approved in accordance.   |                     |                             |                     |  |
|         | A.393(X) or A.233(VII)  |                     |                             | - Ipon Resolution   |  |
|         | .6 has not been approved  |                     |                             |                     |  |
| 2.3.2   | The process unit has been approved  | in accordance w     | ith Resolution A.444(XI     | )                   |  |
| 2.3.3   | The oil content meter:  |                     |                             |                     |  |
|         | .1 has been approved in accordar  | nce with Resolut    | ion A.393(X) <sup>1</sup>   |                     |  |
|         | .2 has been approved in accordan  | nce with Resolut    | ion MEPC.60(33) 1           |                     |  |
|         | .3 has been approved in accordar  | nce with Resolut    | ion MEPC.107(49) 2          | x                   |  |
| 2.4     | Maximum throughput of the system  | is (Fwd + Aft)      | 5 + 5 m <sup>3</sup> /h     |                     |  |
| 2.5     | Waiver of Regulation 14:  |                     |                             |                     |  |
| 2.5.1   | The requirement of Regulation 14.1 with Regulation 14.5.                                    | or 14.2 are waiv    | ed in respect of the ship   | in accordance       |  |
| 2.5.1.  | 1 The ship is engaged exclusively on v  | oyages within sp    | pecial area(s):             |                     |  |
|         | ***************************************   |                     |                             |                     |  |
| 2.5.1.  | 2 The ship is certified under the Intern<br>engaged on a scheduled service with             |                     |                             |                     |  |
| 2.5.2   | The ship is fitted with holding tank(s follows:   | ) for the total re  | tention on board of all c   | oily bilge water as |  |
|         | Identification  | Tank Locati         | on                          | Volume (m³)         |  |
| with v  | table is used only in connection waivers in accordance with ation 14.5)                     | Frames<br>(from-to) | Lateral Position<br>(P-C-S) |                     |  |
| -       |   |                     |                             | -                   |  |
| Total v | volume  |                     |                             | -                   |  |
| 2A      | Bunker tank protection, (entry into f   | orce 1 August 20    | 007) (Regulation 12 A)      |                     |  |
| 2A.1    | The ship is required to be constructe requirements of:                                      | d according to R    | egulation 12A and comp      | olies with the      |  |
|         | .1 paragraphs 6 and either 7 or 8 (double hull construction)                                |                     |                             |                     |  |
|         | .2 paragraph 11 (accidental oil fu  | el outflow perfor   | mance)                      |                     |  |
| 2A.2    | The ship is not required to comply w  | ith the requirem    | ents of Regulation 12A      |                     |  |

Equipment installed on ships keel laid on or after 30 April 1994 should be in accordance with Resolution MEPC.60(33).

Form code: IOPP 503a Revision: 2017-09 www.dnvgl.com Page 2 of 4

Equipment installed on ships keel laid on or after 1st January 2005 or new installations fitted onboard ships on or after 1st January 2005 should be according to Resolution MEPC.107(49).

#### Means for retention and disposal of oil residues (sludge) and oily bilge water 3.

holding tank(s) <sup>3</sup> (Regulation 12)
The ship is provided with oil residue (sludge) tanks for retention of oil residues (sludge) on board 3.1 as follows:

| Tank Identification                   |   | Tank Locati   | k Location Volume  |   |
|---------------------------------------|---|---|--|---|
|                                       |   | Frames<br>(from-to)   | Lateral Position (P-C-S)   |   |
| FWD.                                  | WASTE OIL TANK  | 108 - 112   | P  | 22.90   |
|                                       | WASTE OIL TANK  | 42 - 47   | P  | 38.10   |
| DIRT                                  | Y DRAIN TANK  | 42 - 47   | P  | 28.60   |
|                                       |   |   |  | -   |
| Total                                 | volume  |   |  | 89.60   |
|                                       | Auxiliary boiler suitable for burning<br>Other acceptable means, state which  | oil residues (slud  | ge)  |   |
| 3.2.3<br>3.3                          | Auxiliary boiler suitable for burning<br>Other acceptable means, state which<br>The ship is provided with holding ta  | oil residues (slud<br>th:<br>ink(s) for the rete  | ge)  |   |
| 3.2.3<br>3.3                          | Auxiliary boiler suitable for burning<br>Other acceptable means, state which  | oil residues (slud<br>ch:   | ge)  |   |
| 3.2.3<br>3.3                          | Auxiliary boiler suitable for burning<br>Other acceptable means, state which<br>The ship is provided with holding ta  | oil residues (slud<br>th:<br>ink(s) for the rete  | ge)  | ilge water as follov  |
| 3.2.3<br>3.3<br>Tank                  | Auxiliary boiler suitable for burning Other acceptable means, state whice The ship is provided with holding ta  Identification  ILGE STORAGE TANK   | oil residues (slud<br>ch:<br>ank(s) for the rete<br>Tank Location<br>Frames   | ge)<br>ntion on board of oily b<br>on<br>Lateral Position        | ilge water as follov  |
| 3.2.3<br>3.3<br>Tank<br><b>AFT B</b>  | Auxiliary boiler suitable for burning Other acceptable means, state whice The ship is provided with holding ta  Identification  ILGE STORAGE TANK BILGE STORAGE TANK                          | oil residues (slud<br>ch:<br>nk(s) for the rete<br>Tank Location<br>Frames<br>(from-to)<br>42 - 47<br>108 - 116                             | ntion on board of oily bon  Lateral Position (P-C-S)             | ilge water as follov<br>Volume (m³)                           |
| 3.2.3 3.3 Tank  AFT B FWD. CONTTANK   | Auxiliary boiler suitable for burning Other acceptable means, state whice The ship is provided with holding ta  Identification  ILGE STORAGE TANK BILGE STORAGE TANK AMINATED DRAIN WASTE OIL | oil residues (slud<br>ch:<br>ink(s) for the rete<br>Tank Location<br>Frames<br>(from-to)<br>42 - 47   | ntion on board of oily bon Lateral Position (P-C-S) s            | ilge water as follow<br>Volume (m³)<br><b>66.70</b>           |
| 3.2.3 3.3 Tank  AFT B FWD. CONT       | Auxiliary boiler suitable for burning Other acceptable means, state whice The ship is provided with holding ta  Identification  ILGE STORAGE TANK BILGE STORAGE TANK AMINATED DRAIN WASTE OIL | oil residues (slud<br>ch:<br>nnk(s) for the rete<br>Tank Location<br>Frames<br>(from-to)<br>42 - 47<br>108 - 116<br>89 -                    | ntion on board of oily bon  Lateral Position (P-C-S)  S S        | ilge water as follov<br>Volume (m³)<br>66.70<br>76.20         |
| AFT B<br>FWD.<br>CONT<br>TANK<br>DRAI | Auxiliary boiler suitable for burning Other acceptable means, state whice The ship is provided with holding ta  Identification  ILGE STORAGE TANK BILGE STORAGE TANK AMINATED DRAIN WASTE OIL | oil residues (slud<br>ch:<br>nnk(s) for the rete<br>Tank Location<br>Frames<br>(from-to)<br>42 - 47<br>108 - 116<br>89 -<br>89+2500<br>89 - | ntion on board of oily b  ntion  Lateral Position  (P-C-S)  S  S | ilge water as follov<br>Volume (m³)<br>66.70<br>76.20<br>7.60 |

Form code: IOPP 503a Revision: 2017-09 www.dnvgl.com Page 3 of 4

Oily bilge water holding tank(s) are not required by the Convention, if such tank(s) are provided they shall be listed in table under paragraph 3.3

| 5.  | Shipboard oil/marine pollution emergency plan (SOPEP / SMPEP) (Regulation 37)  |  |  |  |  |
|-----|--|--|--|--|--|
| 5.1 | The ship is provided with Shipboard Oil Pollution Emergency Plan in compliance with Regulation 37  |  |  |  |  |
| 5.2 | The ship is provided with a Shipboard Marine Pollution Emergency Plan in compliance with Regulation 37.3   |  |  |  |  |
| 6.  | Exemption  |  |  |  |  |
| 6.1 | Exemptions have been granted by the Administration from the requirements of Chapter 3 of Annex I of the Convention in accordance with Regulation 3.1 on those items listed under paragraph(s) of this Record |  |  |  |  |
| 7.  | Equivalents (Regulation 5)   |  |  |  |  |
| 7.1 | Equivalents have been approved by the Administration for certain requirements of Annex I listed under paragraph(s) of this Record  |  |  |  |  |
| 8.  | Compliance with part II-A - chapter 1 of the Polar Code  |  |  |  |  |
| 8.1 | This ship is in compliance with additional requirements in the environment-related provisions of the Introduction and section 1.2 of chapter 1 of part II-A of the Polar Code                                |  |  |  |  |

THIS IS TO CERTIFY that this Record is correct in all respects.

Issued at Pointe Noire, Congo on 2018-07-01



#### for **DNV GL**

This document is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication can be obtained from trust.dnvgl.com by using the Unique Tracking Number (UTN): n1167564-gud and ID: 37721

Bryan Steven Gale Surveyor

Form code: IOPP 503a Revision: 2017-09 www.dnvgl.com Page 4 of 4

#### **DNV·GL**

#### INTERNATIONAL SEWAGE POLLUTION PREVENTION CERTIFICATE

DNV GL Id No: **37721**Date of issue: **2018-07-01** 

Issued under the provisions of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, as amended by resolution MEPC.274(69), (hereinafter referred to as "the Convention") under the authority of the Government of

#### THE COMMONWEALTH OF THE BAHAMAS

by DNV GL

| •   |                   |
|---|-------------------|
| Name of Ship:   | TUNGSTEN EXPLORER |
| Distinctive Number or Letters:  | C6ZF4             |
| Port of Registry:   | NASSAU            |
| Gross Tonnage:  | 68486             |
| IMO Number:   | 9631735           |
| Number of persons which the ship is certified to carry:   | 200               |
| New ship  | X                 |
| Existing ship   | -                 |
| Date of Build <sup>1</sup>  |                   |
| Date of building contract:  | 2011-05-09        |
| Date on which keel was laid or ship was at a similar stage of construction:   | 2012-04-30        |
| Date of delivery:   | 2013-07-11        |
| Date on which work for a conversion or an alteration or modification of a major character was commenced (where applicable): | -                 |

#### Type of Ship for the application of regulation 11.3

| - | New | passenger | shi | p |
|---|-----|-----------|-----|---|
|   |     |           |     |   |

- Existing passenger ship

X Ship other than a passenger ship

All applicable dates shall be completed



UTN: n1167564-nbz

Particulars of Ship

| Th | is | is | to | cer | tify | <b>/</b> : |
|----|----|----|----|-----|------|------------|
|    |    |    |    |     |      |            |

| 1   | That the ship is equipped with:  |  |  |  |  |
|-----|--|--|--|--|--|
|     | X Sewage Treatment Plant <sup>2</sup>  |  |  |  |  |
|     | - Sewage Comminuting and Disinfecting System <sup>2</sup>  |  |  |  |  |
|     | - Sewage Holding Tank <sup>2</sup>   |  |  |  |  |
|     | X Pipeline for the discharge to a reception  | on facility <sup>2</sup>   |  |  |  |
| 1.1 | Description of the sewage treatment plant  | 5  |  |  |  |
|     | Type of sewage treatment plant:  | FWD: ISS-130N, S/N: ISS-130N-017<br>AFT: ISS-15N, S/N: ISS-15N-073 |  |  |  |
|     | Name of manufacturer:  | II Seung Co., LTD  |  |  |  |
|     | The sewage treatment plant is certified by the Administration to meet the effluent standards as provided for in resolution:  ☐ MEPC.2(VI) ☑ MEPC.159(55) |  |  |  |  |
|     | ☐ MEPC.227(64), as amended, includ   | ing/excluding <sup>3</sup> the standards of section 4.2 thereof.   |  |  |  |
| 1.2 | Description of sewage comminuting and d  |  |  |  |  |
|     | Type of sewage treatment plant:  | -  |  |  |  |
|     | Name of manufacturer:  | •  |  |  |  |
|     | Standard of sewage after disinfection:   | •  |  |  |  |
| 1.3 | Description of sewage holding tank(s)  |  |  |  |  |
|     | Total capacity of the holding tank(s):   | - m³   |  |  |  |
|     | Location:  | -  |  |  |  |
| 1.4 | A pipeline for the discharge of sewage to a  | reception facility fitted with a standard shore                    |  |  |  |

- 1.4 A pipeline for the discharge of sewage to a reception facility, fitted with a standard shore connection.
- 2 That the ship has been surveyed in accordance with Regulation 4 of Annex IV of the Convention.
- That the survey shows that the structure, equipment, systems, fittings, arrangements and materials of the ship and the condition thereof are in all respects satisfactory and that the ship complies with the applicable requirements of Annex IV of the Convention.

This Certificate is valid until  $2023-07-10^4$  subject to surveys in accordance with Regulation 4 of Annex IV of the Convention.

Completion date of survey on which this Certificate is based: 2018-07-01

Issued at Pointe Noire, Congo on 2018-07-01



#### for DNV GL

This document is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication can be obtained from trust.dnvgl.com by using the Unique Tracking Number (UTN): n1167564-nbz and ID: 37721

Bryan Steven Gale Surveyor

Form code: ISPP 501a Revision: 2017-09 www.dnvgl.com Page 2 of 3

Entries in boxes shall be made by inserting either a cross (x) for the answers 'yes' and 'applicable' or a dash (-) for the answers 'no' and 'not applicable' as appropriate

Delete as appropriate.

Insert the date of expiry as specified by the Administration in accordance with regulation 8.1 of Annex IV of the Convention. The day and the month of this date correspond to the anniversary date as defined in Regulation 1.8 of Annex IV of the Convention.

### Endorsement where the renewal survey has been completed and regulation 8.4 applies

| • •  |  |
|--|--|
| The ship complies with the relevant provisions shall, in accordance with Regulation 8.4 of Annivalid until   |  |
| Place:   | Date:  |
|  | Signature:   |
| Stamp  | Surveyor, DNV GL   |
| - The Configuration of the Con | of the certificate until reaching the port where regulation 8.5 or 8.6 applies |
| This Certificate shall, in accordance with regula Convention, be accepted as valid until   | tion 8.5 or 8.6 <sup>5</sup> of Annex IV of the                                |
| Place:   | Date:  |
|  | Signature:   |
| Stamp  | Surveyor, DNV GL   |
|  |  |

Form code: ISPP 501a Revision: 2017-09 www.dnvgl.com Page 3 of 3

Delete as appropriate.



Issued under the provisions of the International Convention on the Control of Harmful Anti-Fouling Systems on Ships (the Convention)

under the authority of the Government of

#### THE COMMONWEALTH OF THE BAHAMAS

by DNV GL

| Pa   | rticulars of Ship   |   |
|--|---|---|
| Name of Ship: Distinctive Number or Letters: |   | TUNGSTEN EXPLORER   |
|  |   | C6ZF4   |
| Por  | t of Registry:  | NASSAU  |
| Gro  | oss Tonnage:  | 68486   |
| IMO  | O Number:   | 9631735   |
| <b>∠</b> 0                                   | An Anti-Fouling System controlled after construction of this ship | under Annex 1 to the Convention has not been applied during or    |
|  |   |   |
|  |   | under Annex 1 to the Convention has been applied on this ship     |
|  |   | under Annex 1 to the Convention was applied on this ship prior to |

Revision: 2017-11

Form code: AFS 101a UTN: n1115084-udq www.dnvgl.com

Page 1 of 15

Date of entry into force of the control measure.

Date of expiration of any implementation period specified in article 4(2) or Annex 1.

#### This is to certify:

- the ship has been surveyed in accordance with regulation 1 of Annex 4 to the Convention, and
- 2. the survey shows that the anti-fouling system on the ship complies with the applicable requirements of Annex 1 to the Convention.

Completion date of survey on which this Certificate is based: 2013-07-11

Issued at Pointe-Noire, Congo on 2018-02-09



#### for DNV GL

This document is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication can be obtained from trust.dnvgl.com by using the Unique Tracking Number (UTN): n1115084-udq and ID: 37721

Michiel Liebenberg Surveyor

Form code: AFS 101a Revision: 2017-11 www.dnvgl.com Page 2 of 15

#### **DNV·GL**

#### INTERNATIONAL BALLAST WATER MANAGEMENT CERTIFICATE

DNV GL Id No: 37721 Date of issue: 2018-07-01

Issued under the provisions of the International Convention for the Control and Management of Ships' Ballast Water and Sediments (hereinafter referred to as "the Convention") under the authority of the Government of

#### THE COMMONWEALTH OF THE BAHAMAS

by DNV GL

| <b>Particulars</b> | of Ship |
|--------------------|---------|
|--------------------|---------|

Name of Ship: **TUNGSTEN EXPLORER** Distinctive Number or Letters: C6ZF4 Port of Registry: NASSAU Gross Tonnage: 68486 Date of Construction: 2012-04-30 Ballast Water Capacity (in cubic metres): 58235.5 IMO Number: 9631735

#### Details of Ballast Water Management Method(s) Used

Method of Ballast Water Management used: Treatment Date installed (if applicable): Name of Manufacturer (if applicable):

PANASIA Co., Ltd.

The principal Ballast Water Management method(s) employed on this ship is/are:

- in accordance with regulation D-1

x in accordance with regulation D-2 (describe):

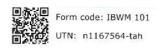
Type of Technology: Filtration + UV

System Model: GloEn-P700

- the ship is subject to regulation D-4

#### This is to certify:

- That the ship has been surveyed in accordance with regulation E-1 of the Annex to the Convention; and
- 2. That the survey shows that Ballast Water Management on the ship complies with the Annex to the Convention.



This Certificate is valid until **2023-07-10** subject to surveys in accordance with Regulation E-1 of the Annex to the Convention.

Completion date of survey on which this Certificate is based: 2018-07-01

Issued at Pointe Noire, Congo on 2018-07-01



#### for DNV GL

This document is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication can be obtained from trust.dnvgl.com by using the Unique Tracking Number (UTN): n1167564-tah and ID: 37721

Bryan Steven Gale Surveyor

Form code: IBWM 101 Revision: 2017-09 www.dnvgl.com Page 2 of 5

#### **Endorsement for annual and intermediate surveys**

THIS IS TO CERTIFY:

that, at a survey required by Regulation E-1 of the Annex to the Convention, the ship was found to comply with the relevant provisions of the Convention.

| Annual survey:  |                            | Alexandria Inner Anchorage,<br>Iskandariyah, Egypt                          | AI Date: 2019-09-05                        |
|---|----------------------------|---|--|
| THE                                       |                            | Signature:  | <b>Ashraf Belal</b><br>Surveyor, DNV GL    |
| Annual/Intermediate <sup>1</sup> survey:                                      | Place:                     |   | Date:                                      |
| Stamp   |                            | Signature:  | Surveyor, DNV GL                           |
|   |                            |   | Surveyor, DIVV GE                          |
| Annual/Intermediate <sup>1</sup><br>survey:                                   | Place:                     |   | Date:                                      |
|   |                            | Signature:  |  |
| Stamp   |                            |   | Surveyor, DNV GL                           |
| Annual survey:  | Place:                     |   | Date:                                      |
|   |                            | Signature:  |  |
| Stamp   |                            |   | Surveyor, DNV GL                           |
|   | te surve                   | y in accordance with Regu   | lation E-5.8.3                             |
| THIS IS TO CERTIFY:<br>that, at an annual/interme<br>Convention, the ship was | ediate¹ sur<br>found to co | vey in accordance with Regulation E<br>mply with the relevant provisions of | -5.8.3 of the Annex to the the Convention. |
|   | Place:                     |   | Date:                                      |
|   |                            | Signature:  |  |
| Stamp   |                            |   | Surveyor, DNV GL                           |
|   |                            |   |  |

Form code: IBWM 101 Revision: 2017-09 www,dnvgl,com Page 3 of 5

Delete as appropriate.

## Endorsement to extend the certificate if valid for less than 5 years where regulation E-5.3 applies

| The ship complies with the relevant provisions of the shall, in accordance with regulation E-5.3 of the Ann valid until | e Convention, and this Certificate lex to the Convention, be accepted as |
|---|--|
| Place:  | Date:  |
|   | Signature:   |
| Stamp   | Surveyor, DNV GL   |
| Endorsement where the renewal surve<br>E-5.4 applies  | ey has been completed and regulation                                     |
| The ship complies with the relevant provisions of the shall, in accordance with regulation E-5.4 of the Ann valid until |  |
| Place:  | Date:  |
|   | Signature:   |
| Stamp   | Surveyor, DNV GL   |
| Endorsement to extend the validity of of survey or for a period of grace where  | e regulation E-5.5 or E-5.6 applies                                      |
| This Certificate shall, in accordance with regulation Convention, be accepted as valid until                            | E-5.5 or E-5.6 <sup>1</sup> of the Annex to the                          |
| Place:  | Date:  |
|   | Signature:   |
| Stamp   | Surveyor, DNV GL   |

Form code: IBWM 101 Revision: 2017-09 www.dnvgl.com Page 4 of 5

## Endorsement for advancement of anniversary date where regulation E-5.8 applies

| In accordance with regulation E-5.8 of the Annex to the Convention, the new anniversary date is |  |  |  |  |
|---|--|--|--|--|
| Date:   |  |  |  |  |
| Signature:  |  |  |  |  |
| Surveyor, DNV GL  |  |  |  |  |
| In accordance with regulation E-5.8 of the Annex to the Convention, the new anniversary date is |  |  |  |  |
| Date:   |  |  |  |  |
|   |  |  |  |  |
| Signature:  |  |  |  |  |
|   |  |  |  |  |

Form code: IBWM 101 Revision: 2017-09 www.dnvgl.com Page 5 of 5

#### **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 4.4 Anti-Scaling Chemical Product Information

80754









[This page has intentionally been left blank.]

# APPENDIX 4.4 ANTI-SCALING CHEMICAL PRODUCT INFORMATION



#### **HDC-ASI-ECO**

#### Biodegradable antiscalant for Reverse Osmosis

#### General

HDC-ASI-ECO 1 & 2 are an antiscalant based on biopolymers and is intended for the treatment of membrane installation. HDC-ASI-ECO is a product of the all-organic type and is based on biodegradable compounds. Based on OECD-testing HDC-ASI-ECO can be classified as inherently biodegradable (20-60%). The origin and biodegradability of the raw materials makes HDC-ASI-ECO a very environment-friendly product. HDC-ASI-ECO disperses inorganic deposits, so that an optimal water flow is guaranteed.

HDC-ASI-ECO conforms to the requirements of NSF/ANSI Standard 60 - Drinking Water Treatment Chemicals - Health Effects.

#### **Properties**

|                         | HDC-ASI-ECO <sub>1</sub> | HDC-ASI-ECO <sub>2</sub> |
|-------------------------|--------------------------|--------------------------|
| Appearance              | clear liquid             | clear liquid             |
| Colour                  | brown                    | brown                    |
| Density (20 °C) approx. | 1.09 g/cm <sup>3</sup>   | 1.02 g/cm <sup>3</sup>   |
| pH                      | 7 - 10                   | 10 - 13                  |

#### Application

HDC-ASI-ECO can be used in water with a maximum Langelier Index of +2.5. The required dose of HDC-ASI-ECO is dependent on the system parameters.

#### Safety

HDC-ASI-ECO is classified as a non-hazardous product. The standard precautionary measures when handling chemicals are to be observed. HDC-ASI-ECO must be protected from frost. Reference is made to the relevant material safety data sheet for more detailed information.









[This page has intentionally been left blank.]

#### **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 4.5 Fomtec Firefighting Foam Product Information

80754









[This page has intentionally been left blank.]

# APPENDIX 4.5 FOMTEC FIREFIGHTING FOAM PRODUCT INFORMATION



#### Fomtec® AFFF 3% A

foam concentrate

#### **Description**

Fomtec AFFF 3% A is an aqueous film forming foam concentrate (AFFF) consisting of fluorocarbon and hydrocarbon surfactants blended with various solvents, preservatives and stabilisers.

The foam forms an aqueous film that rapidly cuts off the oxygen supply and knocks down the fire. The expanded foam, from which the film is drained, forms a stable blanket that suppresses the release of flammable vapours and cools down the fuel surface extinguishing the fire and preventing reignition.

The low surface tension of the water-foam solution enables the aqueous film, although heavier than the burning liquid, to float on top of the liquid surface.

Fomtec AFFF 3% A should be used at 3% proportioned solution (3 part concentrate in 97 parts of water) in brackish, fresh or sea water. It may also be stored as a premix solution in fresh water.

#### **Application**

Fomtec AFFF 3% A is intended for use on class B hydrocarbon fuel fires such as oil, diesel and aviation fuels. It can be used with both aspirating and non-aspirating discharge devices.

Fomtec AFFF 3% A is especially suited whenever rapid fire knock-down is essential. It is compatible with all dry chemical powders and can be used in powder/foam twin agent systems.

#### Fire Performance & Foaming

The fire performance of this product has been measured and documented according to "International Approvals" stated in this document. The foaming properties are depending on equipment used and other variables such as water and ambient temperatures. Average expansion 7:1, average ½ drainage time 02:00 minutes using UNI 86 test nozzle.

#### **Proportioning**

Fomtec AFFF 3% A can easily be proportioned at the correct dilution using conventional equipment such as:

- Inline inductors
- Balanced pressure, variable flow proportioning systems
- Bladder tanks
- Around the pump proportioning systems
- Water turbine driven foam proportioners
- Self inducting branch pipes and nozzles
   The equipment should be designed to the foam type.

#### Compatibility

Contact one of the Fomtec sales team with questions.

#### Technical data

| Appearance                      | Clear yellowish liquid |
|---------------------------------|------------------------|
| Specific gravity at 20°C        | 1,015 +/- 0.01 g/ml    |
| Viscosity at 20°C               | ≤ 20 mPas              |
| pН                              | 6,5 – 8,5              |
| Freezing point                  | -5°C                   |
| Recommended storage temperature | -5 – 55°C              |
| Suspended sediment (v/v)        | Less than 0,2%         |
| Surface tension                 | ≤ 19,0 dynes/cm        |

#### **Environmental impact**

Fomtec AFFF 3% A is formulated using raw materials specially selected for their fire performance and their environmental profile. Fomtec AFFF 3% A is biodegradable. The handling of spills of concentrate or foam solution should however be undertaken according to local regulations. Normally sewage systems can dispose foam solution based on this type of foam concentrate, but local sewage operators should be consulted in this respect. This product contains NO PFOS or PFOA.

Full details will be found in the Material Safety Datasheet (MSDS).

#### Storage / Shelf life

Stored in original unbroken packaging the product will have a long shelf life. Shelf life in excess of 10 years will be found in temperate climates. As with all foams, shelf life will be dependent on storage temperatures and conditions. If the product is frozen during storage or transport, thawing will render the product completely usable.

Synthetic foam concentrates should only be stored in stainless steel or plastic containers. Since electrochemical corrosion can occur at joints between different metals when they are in contact with foam concentrate, only one type of metal should be used for pipelines, fittings, pumps, and tanks employed in the storage of foam concentrates. We recommend following our guidelines for storage and handling ensuring favourable storage conditions.

#### **Packaging**

We supply this product in 25 litre cans and 200 litre drums. We can also ship in 1000 litre containers or in bulk.

| Litres per piece | Packaging       | Part no    |
|------------------|-----------------|------------|
| 25 litres        | Can             | 10-3004-01 |
| 200 litres       | Drum            | 10-3004-02 |
| 1000 litres      | Container       | 10-3004-04 |
| Bulk             | Special request |            |

#### International Approvals

■ EN 1568, part 3

Fomtec<sup>®</sup> is a trademark of Dafo Fomtec AB

Revised: 11.12.2013

The independent alternative | Dafo Fomtec AB | P.O. Box 683 | SE-135 26 Tyresö | P: +46 8 506 405 66 | F: +46 8 506 405 29 | www.fomtec.com





[This page has intentionally been left blank.]

#### **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 4.6 Customs Authority Decision for Export of Hazardous Waste Direct from MODU

80754









[This page has intentionally been left blank.]

## الجمهورية اللبنانية وزارة المالية إدارة الجمارك

## قرار رقم ٢٠١٩/٦٥١ إنشاء منطقة مخصصة بالأنشطة البترولية داخل حرم مرفأ بيروت وتحديد آلية وإجراءات العمل فيها

إنّ المجلس الأعلى للجمارك،

بناءً على المرسوم رقم ٣٥٩، تاريخ ١٥ آذار ٢٠١٧ (تعيين رئيس للمجلس الأعلى للجمارك)، بناءً على المرسوم رقم ٣٦٠، تاريخ ١٥ آذار ٢٠١٧ (ترفيع وتعيين عضوين في المجلس الأعلى بناءً على المرسوم رقم ٣٦٠، تاريخ ١٥ آذار ٢٠١٧ (ترفيع وتعيين عضوين في المجلس الأعلى المجارك)،

بناءُ على المرسوم الإشتراعي رقم ١٢٣، تاريخ ١٢ حزيران ١٩٥٩ (تحديد الأحكام الخاصة بوزارة المالية - إدارة الجمارك)،

بناءً على القانون رقم ٢٠١٠/١٣٢ (قانون المواد البترولية في المياه البحرية)، بناءً على القانون رقم ٧٠ تاريخ ٢٠١٠/٨/٢٤ (قانون الأحكام الضريبية المتعلقة بالأنشطة البترولية)،

. روس ، بناء على المرسوم رقم ٢٠١١ ؛ تاريخ ١٥ كانون الأول ٢٠٠٠ (قانون الجمارك )، بناء على المرسوم رقم ٢٤٤١، تاريخ ١٥ كانون الأول ٢٠٠٠ (قانون الجمارك )، بناء على اتفاقيتي الإستكشاف والإنتاج الموقعتين في كل من الرقعتين ٤ و ٩ لا سبيما المادة ١٥ منهما،

بناء على موافقة معالي وزير الأشغال العامة والنقل رقم ٢٠٥٤/ص، تاريخ ١٩ أيلول ٢٠١٩، بناء" على موافقة معالي وزير الأشغال العامة والنقل رقم ٢٠١٣/هـ، تاريخ ٨ تشرين الأول ٢٠١٩، بناء" على كتاب هيئة إدارة قطاع البترول رفم ٢٣٣٣/هـ، تاريخ ٨ تشرين الأول ٢٠١٩،

يقرر ما يأتي:

S

المادة الأولى: تشأ داخل حرم مرفأ بيروت منطقة مخصصة لإنشاء قاعدة للخدمات اللوجستية والخدمات المرتبطة بها لصالح أعمال الإستكشاف والإنتاج وسائر الأنشطة البترولية وذلك وفق الموقع والحدود والمساحة المبينة في عقد الأشغال الموقع بين إدارة وإستثمار مرفأ بيروت من جهة وشركة فاست بولوريه لوجيستكس ش،م،ل، من جهة ثانية برقم ٥٤٢٤ تاريخ ٤ تشرين الثاني ٢٠١٩ وفي الخرائط المرفقة بهذا العقد والتي تعتبر جزءا" لا يتجزأ من هذا القرار، يمكن إجراء أي توسعة أو تعديل في مساحة هذه المنطقة بقرار يصدر عن المجلس الأعلى للجمارك بناء على إقتراح يمكن إجراء أي توسعة أو تعديل في مساحة هذه المنطقة بقرار يصدر عن المجلس الأعلى للجمارك بناء على إقتراح إدارة وإستثمار مرفا بيروت أو أي جهة رسمية أخرى ذات علاقة.

المادة الثانية: يقتضي أن تكون المنطقة المشار إليها في المادة الأولى محاطة بأسوار من الخارج تضمن الأمن والسلامة العامة بالإضافة إلى وسائل مراقبة إلكترونية وتلفزيونية على إختلاف انواعها، لمنع تسرب البضائع بطريق والسلامة العامة بالإضافة إلى وسائل مراقبة الكترونية، على أن يخصص لهذه المنطقة منفذ وإحد للدخول والخروج الغش إلى الحرم المرفئي أو إلى المنطقة الجمركية، على أن يخصص لهذه المستودعات اللازمة لعمليات نقل البضائع المادة الثالثة: على المستفيد أن ينشئ على نفقته الخاصة الطرق والمخازن والمستودعات اللازمة لعمليات نقل البضائع وخزنها، وأن يؤمن المعدات والأدوات والتجهيزات التي تتطلبها مثل هذه العمليات، على أن يتحمل جميع النفقات اللازمة لهذه الغاية بما فيها المصاريف الناجمة عن ممارسة إدارة الجمارك حقها في المراقبة.

المادة الرابعة: إن المنطقة المخصصة لإنشاء القاعدة اللوجستية ضمن حرم مرفأ بيروت معدة حصرا" لإيداع جميع أنواع البضانع اللازمة للأنشطة البترولية، سواء أكانت وطنية المنشأ أو اكتسبت هذه الصفة بتأدية الرسوم، ويسمح فيها بمطلق الحرية إجراء جميع العمليات التي من شأنها حفظ البضائع،

المادة الخامسة: إن المستفيد، أو ممثله، هما مسؤولان عن كل بضاعة ممنوعة أو محتكرة تدخل بطريقة الغش إلى المنطقة المخصصة لإنشاء القاعدة اللوجستية التي يجري إدخال البضائع اليها بناء على لائحة تقدم إلى مصلحة المنطقة المخصصة لإنشاء القاعدة اللوجستية التي يجري إدخال البضائع اليها بناء على لائحة تقدم إلى مصلحة الجمارك مرفقا" بها جميع المستندات الثبوتية لوضع البضاعة بالإستهلاك المحلي.

المادة السادسة: إن البضائع المودعة في المنطقة المخصصة تكون بعهدة المستفيد الذي يبقى على عاتقه مسؤولية فقدان الطرود المودعة أو النقص الحاصل في محتوياتها،

المادة السابعة: يؤدي المستفيد، لمصلحة إدارة الجمارك، جعالة سنوية قدرها خمسة عشر مليون ليرة لبنانية لقاء المصاريف الإضافية التي تتجم عن مراقبة هذه الإدارة الأعمال التي تجري داخل هذه المنطقة.

المادة الثامنة: تقيد البضائع الداخلة على سجلات خاصة من نسختين، يمسك المستقيد نسخة عنها ويمسك النسخة المادة الثانية موظف الجمارك المختص بمسك هذه السجلات في المنطقة المخصصة، ويجري تضمينها قيود البضائع الداخلة والخارجة مع بيان أعدادها وأوصافها وأوزانها وسائر المعلومات المتعلقة بها عند كل عملية إدخال وإخراج.





المادة التاسعة: تخرج البضائع من هذه المنطقة بناء على طلب يقدمه صاحبها أو من يمثله، فور إتمام عملية تعدادها تمهيدا" لإخراجها.

يتوجب على صاحب البضاعة أو من يمثله أن ينظم إذنا" بالإخراج وبيرزه إلى موظف الجمارك للتأسير عليه. المادة العاشرة: لا يسمح بالدخول إلى المنطقة المخصصة إلا لموظفي الجمارك والسلطات العامة المختصة ومستخدمي المستفيد والأشخاص الذين يحملون إذنا" خاصا" من المستفيد.

المادة الحادية عشر: يؤمن المستفيد أعمال العتالة والرفع والوزن داخل المنطقة المخصصة بواسطة عماله أو مستخدميه، أو بواسطة متعهدي القيام بمثل هذه الأعمال لديه، ويزود كل من الأشخاص المذكورين ببطاقات تخولهم دخول هذه المنطقة للعمل وتسحب منهم عند إنتهاء مدة خدمتهم.

المادة الثانية عشر: يعين المستفيد عند الحاجة الأمكنة المسموح بخزن المواد القابلة للإلتهاب فيها ضمن المنطقة، شرط أن تراعى في إختيار هذه الأمكنة شروط الأمان والسلامة العامة.

المادة الثالثة عشر: يجري إدخال البضائع والمواد والآليات إلى المنطقة المخصصة بموجب نسخة عن بيان الوضع بالإستهلاك المحلي وبيان تعداد يقدمه صاحب العلاقة يضمنه كافة المعلومات المتعلقة بالإرسالية.

المادة الرابعة عشر: علاوة على بيان التعداد المذكور في المادة السابقة، يتوجب على شاغلي المنطقة المخصصة تضمين السجل الوارد في المادة الثامنة من هذا القرار وضمن الشروط المحددة فيها ، جميع المعلومات التي يتضمنها البيان الأنف الذكر، تؤشر عليه مصلحة الجمارك وبرقمه قبل وضعه في الإستعمال. وينبغي أن يكون هذا السجل مطابقا" للنماذج المقبولة من إدارة الجمارك، التي تعتمد سجلا" مشابها" لضبط القيود.

المادة الخامسة عشر: يتوجب على أصحاب البضائع الذين يشغلون أماكن في المنطقة المخصصة أن يضعوا بضائعهم في هذه الأمكنة بشكل يمكن موظفي الجمارك في كل وقت من التثبت من إنطباق قبود السجلات على البضائع الموجودة فيها بصورة فعلية.

المادة السادسة عشر: إن الإنشاءات التي يقيمها المستفيد ضمن المنطقة المخصصة وكذلك جميع البضائع والأليات والمواد الأخرى الموجودة داخل هذه المنطقة يجب أن تكون مؤمنة ضد أخطار الحريق والكوارث مع إمكان ملاحقة الشخص الثالث.

يجري التأمين إما من قبل المستغيد مباشرة أو من قبل ممثليه، ويبقى الشاغل الذي يقوم بالتأمين بوسائله مسؤولا" شخصيا" عن كل ضرر يقع على أبنيته أو بضائعه أو آلاته أو على أبنية الغير أو بضائعه أو آلياته إذا حصل هذا الضرر بسبب حريق لحق ببضائعه أو امتد إلى بضائع الغير،

المادة السابعة عشر: تخرج البضائع من المنطقة المخصصة بموجب بيان أو إذن إخراج يقدمه صاحبها أو من يمثله ويسجل خروجها على السجل المنصوص عليه في المادتين الثامنة والرابعة عشر من هذا القرار.

المادة الثامنة عشر: على صاحب العلاقة الذي يرغب بإخراج بضاعته أن يقدم طلبا" إلى مصلحة الجمارك مبينا" فيه نوع ومنشأ البضائع والعدد ووزن المحتويات ورقم بيان الإدخال.

المادة التاسعة عثير: إن الدخول إلى المنطقة المخصصة محظور على كل شخص لا يحمل بطاقة تخوله الدخول، المادة التاسعة عثير: إن الدخول إلى المنطقة المخصصة محظور على كل شخص لا يحمل بطاقة تخوله الذين يشتغلون باستثناء مستخدمي المستفيد وموظفي الجمارك أو السلطة العامة المختصين، ويسمح المستفيد للأشخاص الذين يشتغلون باستثناء مستخدمي المستفيد وموظفي الجمارك أو السلطة العامة المخصصة أن يكون مزودا" لحسابه بالدخول إليها وتزويدهم ببطاقات خاصة. على كل من يرغب بالدخول إلى المنطقة المخصصة أن يكون مزودا" بالإذن الخاص،

ب م حس المستفيد على مسؤول كليا عن جميع الحوادث أو الأغلاط أو الإهمال أو التغافل التي يرتكبها المادة العشرون: إن المستفيد عو مسؤول عن تأدية بدل الأضرار التي تسببها الحوادث والأغلاط المذكورة، مستخدموه أو عماله وكذلك فإنه مسؤول عن تأدية بدل الأضرار التي تسببها الحوادث والأغلاط المذكورة،

مستخدموه او عماله وحديث عبيه مسوون على عدي المخصصة المخصصة المادة الحادية والعشرون: على المستفيد أن يقدم إلى موظفي الجمارك القائمين بالخدمة في المنطقة المخصصة المادة الحادية والعشرون: على المستفيد أن يقدم إلى موظفي الجمارك القائمين بالخدمة في المنطقة المخصصة المستلزمات الأساسية من مكتب وتجهيزات وغرف للإستراحة وكهرباء وماء وهاتف وأجهزة كومبيوتر وأي أجهزة إتصال المستلزمات الأساسية من مكتب وتجهيزات وغرف للإستراحة وكهرباء وماء وهاتف وأجهزة كومبيوتر وأي أجهزة إتصال أخرى لازمة.

المادة الثانية والعشرون: يجري العمل في المنطقة المخصصة على مدار الساعة ويقفل باب المنفذ، عند الضرورة، بمفتاحين مختلفين يسلم أحدهما لمصلحة الجمارك ويبقى الآخر بحوزة المستفيد.

لا يجري إدخال البضائع إلى المنطقة المخصصة أو إخراجها منها إلا بحضور موظفي الجمارك الدائم، لا يجري إدخال البضائع إلى المنطقة المخصصة أو إخراجها منها إلا بحضور موظفي الجمارك الدائم، المادة الثالثة والعشرون: يتم التصريح عن المستوردات اللازمة للأنشطة البترولية الواردة عبر مرفأ بيروت، بموجب بيانات وضع بالإستهلاك المحلي 1M4، وبعد إستكمال الإجراءات الجمركية كافة، تنقل هذه المستوردات، تحت إشراف عناصر الجمارك، إلى المنطقة المخصصة وتسجل في قيودها.

مكن في حالات خاصة أو طارئة، يعود لإدارة الجمارك أمر تقديرها، وبناء على طلب أصحاب العلاقة، السماح بدخول البضائع المستوردة التي سيتم إستعمالها في الأنشطة البترولية بموجب أذونات خاصة ولمهلة محددة وتنقل مباشرة إلى منصة التنقيب، وتسدد لاحقا" ببيانات جمركية نظامية، ويجري إدخالها في قيود المنطقة المخصصة.

في حالات الطوارئ التي تستدعي الاستيراد المباشر للبضائع من الخارج إلى منصة التنقيب، يتم إعلام موظف الجمارك في حالات الطوارئ التي تستدعي الاستيراد المباشر للبضائع من المعاملات الجمركية المشار إليها أعلاه، بصورة لاحقة. المكلف بالخدمة على هذه المنصدة بالواقع، على ان يتم تنظيم المعاملات الجمركية المشار إليها أعلاه، بموجب بيانات المادة الرابعة والعشرون: يتم التصريح عن المستوردات اللازمة للأنشطة البترولية الواردة عبر المطار، بموجب بيانات وضع بالإستهلاك المحلي، وتتبع بشأنها الإجراءات المذكورة في ترانزيت إلى مرفأ بيروت، حيث تسدد بموجب بيانات وضع بالإستهلاك المحلي، وتتبع بشأنها الإجراءات المذكورة في المادة السابقة،

يمكن في حالات خاصة أو طارئة، يعود لإدارة الجمارك أمر تقديرها، وبناء على طلب أصحاب العلاقة، السماح بدخول البضائع المستوردة عبر المطار والتي سيتم إستعمالها في الأنشطة البترولية بموجب أذونات خاصة تُعطى من قبل

3

hilling

مدير الجمارك العام أو رئيس المكتب المحلي ولمهلة محددة، تسدد لاحقا" ببيانات جمركية نظامية في مرفأ بيروت، ويجرى ترفيقها مباشرة من المطار إلى منصة التنقيب على أن تدرج في قيود المنطقة المخصصة.

كما يمكن نقل البضائع من المرفأ إلى المطار لنقلها بوإسطة الطائرة إلى منصة التنقيب ضمن الحالات المشار إليها أعلاه وبنفس الشروط.

المادة الخامسة والعشرون: يتم إدخال البضائع الوطنية إلى المنطقة المخصصة بموجب طلبات مرفقة بغواتير تفصيلية تقدم لربًاسة مصلحة المرفأ ويؤشر عليها من قبل الجمارك وبسجل في القيود، في حال إدخال بضائع وطنية إلى منصة التنقيب، بصورة مباشرة، يتم إعلام موظف الجمارك المولج بالخدمة هناك حيث يؤشر عليها ويعيد النسخة المؤشرة إلى موظف المنطقة المخصصة حيث تدرج في قيودها.

المادة السادسة والعشرون: يجري التصريح عن البضائع العائدة للأنشطة البترولية المنوي إدخالها مؤقتا" بموجب بيانات IM5 وفق الأصول النظامية، على أن تطبق بشأنها الإجراءات المذكورة في المادتين ٢٢ و ٢٤ من هذا القرار في حال إدخالها إلى المنطقة المخصيصية أو منصبة التنقيب،

المادة السابعة والعشرون: في حال رغب أصحاب العلاقة بتصدير البضائع التي سبق وأن وضعت في الإستهلاك المحلي بموجب بيانات 1M4 لصالح الأنشطة البترولية، يتم تنظيم بيانات EX1 وفق الأصول النظامية وتؤشر القيود بالمعنى.

في حال رغب أصحاب العلاقة بإدخال هذه البضائع إلى السوق المحلي فتؤدى عنها الرسوم والضرائب المتوجبة بموجب تصفية إضافية وتؤشر البيانات والقيود بالمعنى.

أما بالنسبة إلى البضائع الوطنية، فيمكن إعادتها إلى الداخل بموجب لوائح إخراج من المنطقة المخصصة على أن تؤشر القيود بالمعنى.

أما بالنسبة للبضائع المدخلة مؤقتاً فتسدد بياناتها وفق الأصول النظامية.

المادة النامنة والعشرون: يتعهد المستفيد تجاه الجمارك بتحمل المسؤولية الناجمة عن إساءة استعمال المستوردات في غير الغاية المعدة لها، على أن يرفق هذا التعهد في كل معاملة جمركية كشرط لإفادتها من الإعفاء من الرسوم الجمركية ومن الضريبة على القيمة المضافة أو من أي معاملة خاصة، كما يتعهد بتحمل أي مسؤولية ناجمة عن مخالفة القوانين والأنظمة الجمركية في كل ما يتعلق بنشاطاته.

يستخدم رمز الإعفاء ١٤٧ لإعفاء المستوردات المتعلقة بالأنشطة البترولية من الرسوم الجمركية ومن الضريبة على القيمة المضافة أو من أي معاملة خاصة.



FROM:

المادة التاسعة والعشرون: على المستفيد أن يقدم إلى موظفي الجمارك القائمين بالخدمة في المواقع البحرية (منصات الانتقال التنقيب) المستلزمات الأساسية من مكتب وتجهيزات وغرف منامة ووسائل إتصال وسائر مستلزمات الإقامة والإنتقال من وإلى المواقع البحرية،

من وإلى المواقع البحرية. المادة الثلاثون: توضيع تحت الأختام بالرصاص، أو غيره، البضائع الوطنية أو التي إكتسبت هذه الصفة، الموجودة على بواخر الإمداد التي يستوجب عملها الإنتقال إلى خارج المنطقة الجمركية اللبنانية لنقل بعض المخلفات الناجمة عن عمليات التنقيب، ويبقى مفهوما" وجوب تنظيم بيان تصدير وفق الأصول النظامية بالنسبة لهذه المخلفات.

عن عمليات التنقيب، ويبقى مفهوما" وجوب تنظيم بيان تصلير وبي «محول التنقيب بالتأشير على طلبات الإخراج المادة الحادية والتلاثون: يقوم موظفو الجمارك المكلفون بالخدمة في منصات التنقيب بالتأشير على طلبات الإخراج، في المنطقة المخصصة، بما يغيد بوصول البضائع إلى هذه المنصات بالأعداد والأوصاف الواردة في طلبات الإخراج، ويتولون بالإضافة إلى ذلك، مراقبة الأعمال بما يضمن عدم تسريب البضائع إلى خارج منطقة العمل.

ويعوبون بالمصحب بنى مست عرب و المحارك العامة بتأمين أعداد الموظفين اللازمين، في الشعب البحرية كل ضمن المادة الثانية والثلاثون: تكلف مديرية الجمارك العامة بتأمين أعداد الموظفين اللازمين، في الشعب البحرية كل ضمن نطاقه، للقيام بالمهام الجمركية المتعلقة بالأنشطة البترولية بسلاسة وفق هذا القرار، على أن يؤخذ بعين الإعتبار أن هذه المهام تتطلب تأمين عناصر في البر وفي البحر وعلى مدار الساعة.

هذه المهام للطلب نامين عاصر في جر رحي المحارك العامة شكل ومندرجات السجلات الواجب مسكها بما يضمن سلامة المادة الثالثة والتلاثون: تحدد مديرية الجمارك العامة شكل ومندرجات السجلات الواجب مسكها بما يضمن سلامة الإجراءات الجمركية وعمليات الرقابة على حركة البضائع.

الإجراءات الجمردية وعمليت الرب على حرب العامة الشروط والإجراءات المتعلقة بالأمان والإحتراز والسلامة العامة المادة الرابعة والثلاثون: تحدد مديرية الجمارك العامة الشروط والإجراءات المتعلقة بالأمان والإحتراز والسلامة العامة في المواقع البرية والبحرية المتعلقة بالأنشطة البترولية والمشمولة بهذا القرار،

المادة الخامسة والثلاثون: ينشر هذا القرار ويبلغ حيث تدعو الحاجة ويعمل به فور صدوره .

بيروت، في ٢٦ تشرين الثاني ٢٠١٩

الدنيس الطفيلي الطفيلي المعد الطفيلي المعد الطفيلي المعددة الم

العضو هاني الحاج شداده

م- العضو غواسيا القري

#### **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 4.7 IESC Permits and Certificates

80754









[This page has intentionally been left blank.]



# ΚΥΠΡΙΑΚΗ ΕΤΑΙΡΕΙΑ ΠΙΣΤΟΠΟΙΗΣΗΣ CYPRUS CERTIFICATION COMPANY

# ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE OF CONFORMITY

No. ES.N.14.004

The Cyprus Certification Company certifies that the Environmental Management System of the Enterprise:

# INNOVATIVE ENVIRONMENTAL SOLUTIONS CENTRE LTD

concerning the following activities:

Management of hazardous and non hazardous waste.

carried out at the following locations:

Offices and Production Unit: 33, Spyrou Kyprianou Street, C' Ipsonas Industrial Area, 4193 Limassol, Cyprus.

has been assessed and found to be in conformity with the requirements of the Standard:

#### CYS EN ISO 14001:2015

The present certificate is granted in accordance to the CCC General Rules and Procedures for the Assessment and Certification of Environmental Management Systems, is ruled by the terms of the relevant contract between CCC and the enterprise and is valid until: 12/6/2020

Nicosia, 28/6/2017

Vassos Vassiliou Director of Certification

Initial Issue: 13/6/2014





Αρ. Πιστ. 282







#### REPUBLIC OF CYPRUS

#### MINISTRY OF AGRICULTURE, RURAL DEVELOPMENT AND THE ENVIRONMENT MINISTRY OF LABOUR, WELFARE AND SOCIAL INSURANCE

### The Industrial Emissions (Integrated Prevention and Control of Pollution) Laws of 2013 and 2016

#### (Law 184(I)/2013 and Law 131(I)/2016)

#### **INDUSTRIAL EMISSIONS PERMIT**

#### **INDUSTRIAL EMISSIONS PERMIT NUMBER: 2/2019**

In accordance with sections 8 and 11 of the Industrial Emissions (Integrated Prevention and Control of Pollution) Laws of 2013 and 2016 (Law 184(I)/2013 and Law 131(I)/2016) an Industrial Emissions Permit is granted to "IESC Innovating Environmental Solutions Center Ltd" on the basis of the attached Conditions of Operation which are an integral part of the Industrial Emissions Permit and that we decided to attach thereto. following consultation with the Technical Committee for the Protection of the Environment, established under the provisions of the Industrial Emissions (Integrated Prevention and Control of Pollution) Laws of 2013 and 2016. The conditions of the Industrial Emissions Permit (General and Special) are attached.

The grant of this Permit does not waive the obligation of the Economic Operator of the undertaking to obtain any other permits required under other laws neither can it be used as an argument to obtain any other permit.

Georgia Emilianidou

Costas Kadis

Minister of Labour, Welfare

Minister of Agriculture, Rural Development

and Social Insurance

and the Environment

[Signatures and stamps of the respective Ministries]

Date: 18/3/2019

Receipt no: 0071

Date: 2/10/2019

In accordance with the power vested in me by the Sworn Translators ( Registration and Regulation of services in the Republic of Cyprus) Law, (Law 45(I)/2019), I hereby certify that this text in ENGLISH is a true and accurate translation of the attached document in the GREEK language.

Name and surname of Sworn Translator: OLVIA CONSTANTINOU

Registration No: 027

Approved language combination: EL-EN-FR-IT

Signature: Ohn Control

**OLVIA CONSTANTINOU** 

Stamp duty:

Sworn Translator

14 a Iliados str. CY 4046 Limassol - Cyprus

Tel: +357 99 560 168, olviam@cytanet.com.cy





ΥΠΟΥΡΓΕΙΟ ΓΕΩΡΓΙΑΣ, ΑΓΡΟΤΙΚΉΣ ΑΝΑΠΤΎΞΗΣ ΚΑΙ ΠΕΡΙΒΑΛΛΟΝΤΟΣ ΥΠΟΥΡΓΕΙΟ ΕΡΓΑΣΙΑΣ, ΠΡΟΝΟΙΑΣ ΚΑΙ ΚΟΙΝΩΝΙΚΏΝ ΑΣΦΑΛΙΣΕΏΝ

Οι περί Βιομηχανικών Εκπομπών (Ολοκληρωμένη Πρόληψη και Έλεγχος της Ρύπανσης)
Νόμοι του 2013 και 2016
(Ν. 184(Ι)/2013 και Ν. 131(Ι)/2016)

#### ΑΔΕΙΑ ΒΙΟΜΗΧΑΝΙΚΩΝ ΕΚΠΟΜΠΩΝ

ΑΡΙΘΜΟΣ ΑΔΕΙΑΣ ΒΙΟΜΗΧΑΝΙΚΩΝ ΕΚΠΟΜΠΩΝ: 2/2019

Σύμφωνα με τα άρθρα 8 και 11 των περί Βιομηχανικών Εκπομπών (Ολοκληρωμένη Πρόληψη και Έλεγχος της Ρύπανσης) Νόμων του 2013 και 2016 (Ν. 184(I)/2013 και Ν. 131(I)/2016) χορηγείται Άδεια Βιομηχανικών Εκπομπών στην εταιρεία « IESC - Innovating Environmental Solutions Center Ltd » με βάση τους συνημμένους Όρους Λειτουργίας που αποτελούν αναπόσπαστο μέρος της Άδειας Βιομηχανικών Εκπομπών και τους οποίους αποφασίσαμε να επισυνάψουμε σε αυτή, αφού συμβουλευθήκαμε την Τεχνική Επιτροπή για την Προστασία του Περιβάλλοντος η οποία εγκαθιδρύθηκε με βάση τις πρόνοιες των περί Βιομηχανικών Εκπομπών (Ολοκληρωμένη Πρόληψη και Έλεγχος της Ρύπανσης) Νόμων του 2013 και 2016. Οι Όροι της Άδειας Βιομηχανικών Εκπομπών (Γενικοί και Ειδικοί) επισυνάπτονται.

Η χορήγηση της Άδειας αυτής δεν απαλλάσσει τον Φορέα Εκμετάλλευσης της εγκατάστασης από την υποχρέωση να εξασφαλίσει οποιεσδήποτε άλλες άδειες απαιτούνται δυνάμει άλλων Νόμων και ούτε αποτελεί επιχείρημα για εξασφάλιση οποιασδήποτε άλλης άδειας.

Γεωργία Αιμιλιανίδου

Υπουργός Εργασίας, Πρόνοιας και Κοινωνικών Ασφαλίσεων

COUNT

Κώστας Καδής

Υπουργός Γεωργίας, Αγροτικής

Ανάπτυξης και Περιβάλλοντος

Ημερομηνία: (8./3./2019



#### REPUBLIC OF CYPRUS

### MINISTRY OF AGRICULTURE, RURAL DEVELOPMENT AND THE ENVIRONMENT

#### The Waste Laws of 2011 to 2016

(Law 185(I)/2011, Law 6(I)/2012, Law 32(I)/2014, Law 55(I)/2014, Law 31(I)/2015, Law 3(I)/2016)

#### WASTE MANAGEMENT PERMIT

#### Permit number 2019.11.01

In accordance with the Waste Laws of 2011 to 2016, "IESC INNOVATING ENVIRONMENTAL SOLUTIONS CENTER LTD" company is granted a Waste Management Permit to receive, store and process hazardous waste, as determined in Table 1 of part IV of this Permit. The conditions of the permit are attached to the Annex and are an integral part of this Permit.

In accordance with subsection (10) of section 25 of the Waste Laws of 2011 to 2016, this Waste Management Permit is combined with the Industrial Emissions Permit under number 2/2019 held by the Economic Operator, which includes the conditions for the protection of the environment and fulfils the requirements of subsection 4(b) of section 25 of the Waste Laws of 2011 to 2016.

The date of expiry of this permit is: 31.01.2024

Costas Kadis

Minister of Agriculture, Rural Development and the Environment [Signature] [Stamp of the Ministry]

Issue date: 12/4/19

This permit must be displayed at a conspicuous place within the premises of the undertaking or business.

Date: 2/10/2019

Receipt no: 0071

In accordance with the power vested in me by the Sworn Translators (Registration and Regulation of services in the Republic of Cyprus) Law, (Law 45(I)/2019), I hereby certify that this text in **ENGLISH** is a true and accurate translation of the attached document in the **GREEK** language.

Name and surname of Sworn Translator: OLVIA CONSTANTINOU Registration No: 027

Approved language combination: EL-EN-FR-IT

Signature: Ohm. Costulors-

Stamp duty:

OLVIA CONSTANTINOU Sworn Translator 14 a Iliados str. CY 4046 Limassol - Cyprus

Tel: +357 99 560 168, olviam@cytanet.com.cy





ΥΠΟΥΡΓΕΙΟ ΓΕΩΡΓΙΑΣ ΑΓΡΟΤΙΚΉΣ ΑΝΑΠΤΥΞΗΣ ΚΑΙ ΠΕΡΙΒΑΛΛΟΝΤΟΣ

(N.~185(I)/2011,~N.6(I)/2012,~N32(I)/2014,~N.55(I)/2014,~N.31(I)/2015,~N.3(I)/2016)

#### ΑΔΕΙΑ ΔΙΑΧΕΙΡΙΣΗΣ ΑΠΟΒΛΗΤΩΝ

Αρ. Άδειας 2019.11.01

Με βάση τους περί Αποβλήτων Νόμους του 2011 έως 2016, παραχωρώ στην εταιρεία « IESC - INNOVATING ENVIRONMENTAL SOLUTIONS CENTER LTD » Άδεια Διαχείρισης Αποβλήτων για παραλαβή, αποθήκευση και επεξεργασία επικίνδυνων αποβλήτων, όπως αυτό καθορίζονται στον Ηίνοκα 1 του Μέρους Ιν το μάσας Αδειας. Οι όροι της Άδειας επισυνάπτονται στο Παράρτημα και αποτελούν αναπόσπας επιερετής παρούσας Άδειας.

Με βάση το εδάφιο (10) του Αρθρου 25 των περί Αποβλήτων Νόμων του 2011 έως 2016, η παρούσα Αδεια Διαχείρισης Αποβλήτων συνδυάζεται με την Άδεια Βιομηχανικών Εκπομπών με Αρ. 2/2019 που κατέχει ο Φορέας Εκμετάλλευσης, η οποία περιλαμβάνει τους Όρους για προστασία του περιβάλλοντος και καλύπτει τις απαιτήσεις του εδαφίου 4(β) του άρθρου 25 των περί Αποβλήτων Νόμων του 2011 έως 2016.

Ημερομηνία Λήξης της παρούσας Άδειας είναι: 31.01.2024

Κώστας Καδής Υπουργός Γεωργίας, Αγροτικής Ανάπτυξης και Περιβάλλοντος

Ημερομηνία Έκδοσης: 12 4 19

Το παρόν έγγραφο της Άδειας θα πρέπει να τοποθετείται σε περίοπτη θέση εντός των ευποσ της εγκατάστασης ή επιχείρησης.



#### PART IV - Waste Catalogue

|     | Waste Type   | EWC       | Treatment Method      |
|-----|--|-----------|-----------------------|
|     | WASTE RESULTING FROM EXPLORATION, MINING,<br>QUARRYING AND PHYSICAL, AND CHEMICAL TREATMENT<br>OF MINERALS               | 01        | Or the sak            |
|     | DRILLING MUDS AND OTHER DRILLING WASTES  | 01 05     | STA                   |
| 1.  | Fresh water drilling muds and wastes   | 01 05 04  | LINE 1 OR 2 OR 1&2    |
| 2.  | Oil containing drilling muds and wastes  | 01 05 05* | LINE 1 OR 2 OR 1&2    |
| 3.  | Drilling muds and other drilling wastes containing dangerous substances  | 01 05 06* | LINE 1 OR 2 OR 1&2    |
| 4.  | Barite-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06                           | 01 05 07  | LINE 1 OR 2 OR 1&2    |
| 5.  | chloride-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06                         | 01 05 08  | LINE 1 OR 2 OR 1&2    |
| 6.  | wastes not otherwise specified   | 01 05 99  | LINE 1 OR 2 OR 1&2    |
|     | WASTES FROM AGRICULTURE, HORTICULTURE,<br>AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD<br>PREPARATION AND PROCESSING | 02        |                       |
| 7,  | agrochemical waste containing dangerous substances   | 02 01 08* | LINE 4B OR /AND 4D OF |
| 8.  | Materials inappropriate for consumption or elaboration   | 02 03 04  | LINE 7A OR 7B         |
|     | WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS   | 03        |                       |
|     | AND FURNITURE, PULP, PAPER AND CARDBOARD wastes from wood processing and the production of panels and furniture          | 03 01     |                       |
| 9.  | sawdust, shavings, cuttings, wood, particle board and vencer containing dangerous  | 03 01 04* | LINE 4B               |
|     | substances   | 400       |                       |
|     | wastes from wood preservation  | 03 02     |                       |
| 10. | non-halogenated organic wood preservatives   | 03 02 01* | LINE 6B OR 7B         |
| 11. | organochlorinated wood preservatives   | 03 02 02* | LINE 7B               |
| 12. | organometallic wood preservatives  | 03 02 03* | LINE 7B               |
| 13. | inorganic wood preservatives   | 03 02 04* | LINE 7B               |
| 14. | other wood preservatives containing dangerous substances   | 03 02 05* | LINE 4B OR 7B         |
| 13. | other wood preservatives containing dangerous substances   | 03 02 05* | LINE 4B OR 7B         |
|     | wastes from pulp, paper and cardboard production and processing  | 03 03     |                       |
| 14. | de-inking sludges from paper recycling   | 03 03 05  | LINE 3 OR 7A          |
| 15. | sludges from on-site effluent treatment other than those mentioned in 03 03 10   | 03 03 11  | LINE 3 OR 7A          |
|     | WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES  | 04        |                       |
|     | wastes from the leather and fur industry   | 04 01     |                       |
| 16. | degreasing wastes containing solvents without a liquid phase   | 04 01 03* | LINE 7B               |
| 17. | tanning liquor containing chromium   | 04 01 04  | LINE 7A OR 7B         |
| 18. | tanning liquor free of chromium  | 04 01 05  | LINE 7A OR 7B         |
|     | sludges, in particular from on-site effluent treatment containing chromium   | 04 01 06  | LINE 7A OR 7B         |

|     |   |           | /                   |
|-----|---|-----------|---------------------|
| 20. | sludges, in particular from on-site effluent treatment free of chromium                   | 04 01 07  | LINE 7A OR 7B       |
|     | wastes from the textile industry  | 04 02     | PKO.                |
| 21. | wastes from finishing containing organic solvents   | 04 02 14* | LINE 6B,4B OR THE   |
| 22. | wastes from finishing other than those mentioned in 04 02 14                              | 04 02 15  | LINE 4B OR 7A OR 7E |
| 23. | dyestuffs and pigments containing dangerous substances                                    | 04 02 16* | LINE 7B             |
| 24. | dyestuffs and pigments other than those mentioned in 04 02 16                             | 04 02 17  | LINE 7B OR 7B       |
| 25. | sludges from on-site effluent treatment containing dangerous substances                   | 04 02 19* | LINE 7B             |
| 26. | sludges from on-site effluent treatment other than those mentioned in 04 02 19            | 04 02 20  | LINE 3              |
| 27. | wastes from unprocessed textile fibres  | 04 02 21  | LINE 4B             |
| 28. | wastes from processed textile fibres  | 04 02 22  | LINE 4B             |
|     | WASTES FROM PETROLEUM REFINING, NATURAL GAS PURIFICATION  AND PYROLYTIC TREATMENT OF COAL | 05        |                     |
|     | wastes from petroleum refining  | 05 01     |                     |
| 29. | Desalter sludges  | 05 01 02* | LINE 1 OR 2         |
| 30. | Tank bottom sludges   | 05 01 03* | LINE 1 OR 2         |
| 31. | Acid alkyl sludges  | 05 01 04* | LINE 1 OR 2         |
| 32. | Oil spills  | 05 01 05* | LINE 1 OR 2 OR 7A   |
| 33. | Oily sludges from maintenance operations of the plant or equipment                        | 05 01 06* | LINE 1 OR 2         |
| 34. | Acid tars   | 05 01 07* | LINE 7B             |
| 35. | Other tars  | 05 01 08* | LINE 4A, 7A OR 7B   |
| 36. | sludges from on-site effluent treatment containing dangerous substances                   | 05 01 09* | LINE 1 , 2 ,7A      |
| 37. | sludges from on-site effluent treatment other than those mentioned in 05<br>01 09         | 05 01 10  | LINE 1, 2,7A        |
| 38. | wastes from cleaning of fuels with bases  | 05 01 11* | LINE 1, 2,7A        |
| 39. | Oil containing acids  | 05 01 12* | LINE 7B             |
| 40. | Boiler feedwater sludges  | 05 01 13  | LINE 1 OR 2 OR 1&2  |
| 41. | Wastes from cooling columns   | 05 01 14  | LINE 1              |
| 42. | Spent filter clays  | 05 01 15* | LINE 4B OR 7B       |
| 43. | sulphur-containing wastes from petroleum desulphurisation                                 | 05 01 16  | LINE 7B             |
|     | waste from the pyrolytic treatment of coal  | 05 06     |                     |
| 44. | Acid tars   | 05 06 01* | LINE 7B             |
| 45. | Other tars  | 05 06 03* | LINE 4B, 7A OR 7B   |
| 46. | Waste from cooling columns  | 05 06 04  | LINE 1              |

-

|     |  |           | YNOY           |
|-----|--|-----------|----------------|
|     | waste from natural gas purification and transportation                     | 05 07     | MINSL          |
| 47. | wastes containing mercury  | 05 07 01* | LINE 7B        |
| 48. | wastes containing sulphur  | 05 07 02  | LINE B         |
|     | WASTES FROM INORGANIC CHEMICAL PROCESSES                                   | 06        | METAP          |
|     | wastes from the manufacture, formulation, supply and use (MFSU) of acids   | 06 01     |                |
| 49. | sulphuric acid and sulphurous acid   | 06 01 01* | LINE 8         |
| 50. | hydrochloric acid  | 06 01 02* | LINE 8         |
| 51. | hydrochloric acid  | 06 01 03* | LINE 8         |
| 52. | phosphoric and phosphorous acid  | 06 01 04* | LINE 8         |
| 53. | nitric acid and nitrous acid   | 06 01 05* | LINE 8         |
| 54. | other acids  | 06 01 06* | LINE 8 OR 7B   |
|     | wastes from the MFSU of bases  | 06 02     |                |
| 55. | calcium hydroxide  | 06 02 01* | LINE 8         |
| 56. | ammonium hydroxide   | 06 02 03* | LINE 8         |
| 57. | sodium and potassium hydroxide   | 06 02 04* | LINE 8         |
| 58. | other bases  | 06 02 05* | LINE 8         |
|     | wastes from the MFSU of salts and their solutions and metallic oxides      | 06 03     |                |
| 59. | solid salts and solutions containing cyanides                              | 06 03 11* | LINE 7B        |
| 60. | solid salts and solutions containing heavy metals                          | 06 03 13* | LINE 1,7B      |
| 61. | solid salts and solution other than those mentioned in 06 03 11 and 06 03  | 06 03 14  | LINE 1, 7A, 7B |
| 62. | metallic oxides containing heavy metals                                    | 06 03 15* | LINE 1,7B      |
| 63, | metallic oxides other than those mentioned in 06 03 15                     | 06 03 16  | LINE 1, 7A     |
|     | metal-containing wastes other than those mentioned in 06 03                | 06 04     |                |
| 64. | wastes containing arsenic  | 06 04 03* | LINE 7B        |
| 65. | wastes containing mercury  | 06 04 04* | LINE 7B        |
| 66. | wastes containing other heavy metals                                       | 06 04 05* | LINE 7B        |
|     | sludges from on-site effluent treatment                                    | 06 05     |                |
| 67. | sludges from on-site effluent treatment containing dangerous solutions     | 06 05 02* | LINE 1, 2, 7B  |
| 68. | sludges from onsite effluent treatment other than those mentioned in 06 05 | 06 05 03  | LINE 1, 3      |
|     | wastes from the MFSU of sulphur chemicals, sulphur chemical processes and  | 06 06     |                |
|     | desulphurisation processes   |           |                |

| -          | wastes containing sulphides other than those mentioned in 06 06 02                                 | 06 06 03  | LINE 7B               |
|------------|--|-----------|-----------------------|
| 70.        | wastes from the MFSU of halogens and halogen chemical processes                                    | 06 07     | LINE 1 OR 2 OR 1&2 MI |
|            | activated earbon from chlorine production  |           | LINE 4B B             |
| 71.        |  | 06 07 02* | LINE 7B 2 3           |
| 72.        | barium sulphate sludge containing mercury  | 06 07 03* | 12.5                  |
| 73.        | solutions and acids, for example contact acid  | 06 07 04* | LINE 8 META           |
|            | wastes from the MFSU of silicon and silicon derivatives  | 06 08     |                       |
| 74.        | waste containing dangerous silicones   | 06 08 02* | LINE 7B               |
|            | wastes from the MFSU of phosphorus chemicals and phosphorous chemical processes                    | 06 09     |                       |
| 75.        | phosphorus slag  | 06 09 02  | LINE 7B               |
|            | calcium-based reaction wastes containing or contaminated with dangerous substances                 | 06 09 03* | LINE 7A OR 7B         |
| 76.<br>77. | calcuim-based reaction wastes other than those mentioned in 06 09 03                               | 06 09 04  | LINE 7A OR 7B         |
| 1.15       | wastes from the MFSU of nitrogen chemicals, nitrogen chemical processes and fertiliser manufacture | 06 10     |                       |
| 78.        | wastes containing dangerous substances   | 06 10 02* | LINE 7A OR 7B         |
| 70.        | wastes from the manufacture of inorganic pigments and opacificlers                                 | 06 11     |                       |
| 79.        | calcium-based reaction wastes from titanium dioxide production                                     | 06 11 01  | LINE 4B,7A OR 7B      |
|            | wastes from inorganic chemical processes not otherwise specified                                   | 06 13     |                       |
| 80.        | inorganic plant protection products, wood-preserving agents and other                              | 06 13 01* | LINE 7B               |
| 81.        | spent activated carbon (except 06 07 02)   | 06 13 02* | LINE 4B,7A            |
| 82.        | carbon black   | 06 13 03  | LINE 4B,7A            |
|            | soot   | 06 13 05* | LINE 4B,7A            |
| 83.        | WASTES FROM ORGANIC CHEMICAL PROCESSES   | 07        |                       |
|            | wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals         | 07 01     |                       |
| 84.        | aqueous washing liquids and mother liquors   | 07 01 01* | LINE 7A               |
| 85.        | organic halogenated solvents, washing liquids and mother liquors                                   | 07 01 03* | LINE 7A OR 7B         |
|            | other organic solvents, washing liquids and mother liquors   | 07 01 04* | LINE 6B,7A OR 7B      |
| 86.        | halogenated still bottoms and reaction residues  | 07 01 07* | LINE 7A OR 7B         |
| 87.        | other still bottoms and reaction residues  | 07 01 08* | LINE 1,3              |
| 88.        | halogenated filter cakes and spent absorbents  | 07 01 09* | LINE 7B               |
|            | other filter cakes and spent absorbents  | 07 01 10* | LINE 4B               |
| 89.        | other filter cakes and spent adsorbonas  | 19.0      |                       |
| 90.        | sludges from on-site effluent treatment containing dangerous substances                            | 07 01 11* | LINE 1, 7B            |

|      | wastes from the MFSU of plastics, synthetic rubber and man-made fibres   | 07 02     | VITOT           |
|------|--|-----------|-----------------|
| 93.  | aqueous washing liquids and mother liquors   | 07 02 01* | LINE 7A         |
| 94.  | organic halogenated solvents, washing liquids and mother liquors   | 07 02 03* | LINE 7 B        |
| 95.  | other organic solvents, washing liquids and mother liquors   | 07 02 04* | LINE 6B 7H N    |
| 96.  | halogenated still bottoms and reaction residues  | 07 02 07* | LINE 7A OR THOP |
| 97.  | other still bottoms and reaction residues  | 07 02 08* | LINE 1,7B       |
| 98.  | halogenated filter cakes and spent absorbents  | 07 02 09* | LINE 7B         |
| 99.  | other filter cakes and spent absorbents  | 07 02 10* | LINE 4B ,7B     |
| 100. | sludges from on-site effluent treatment containing dangerous substances  | 07 02 11* | LINE 1, 7B      |
| 101. | sludges from on-site effluent treatment other than those mentioned in 07 02 11   | 07 02 12  | LINE1, 7B       |
| 102. | waste plastic  | 07 02 13  | LINE4C,7A       |
| 103. | wastes from additives containing dangerous substances  | 07 02 14* | LINE 7B         |
| 104. | wastes from additives other than those mentioned in 07 02 14   | 07 02 15  | LINE4B,7A       |
| 105. | waste containing dangerous silicones   | 07 02 16* | LINE 4B, 7B     |
| 106. | waste containing silicones other than those mentioned in 07 02 16  | 07 02 17  | LINE 4B         |
|      | wastes from the MFSU of organic dyes and pigments (except 06 11)   | 07 03     | -10-0           |
| 107. | aqueous washing liquids and mother liquors   | 07 03 01* | LINE 7A         |
| 108. | organic halogenated solvents, washing liquids and mother liquors   | 07 03 03* | LINE 7B         |
| 109. | other organic solvents, washing liquids and mother liquors   | 07 03 04* | LINE 6B         |
| 110. | halogenated still bottoms and reaction residues  | 07 03 07* | LINE 7A OR 7B   |
| 111. | other still bottoms and reaction residues  | 07 03 08* | LINE 1          |
| 112. | halogenated filter cakes and spent absorbents  | 07 03 09* | LINE 7B         |
| 113. | other filter cakes and spent absorbents  | 07 03 10* | LINE 4B         |
| 114. | sludges from on-site effluent treatment containing dangerous substances  | 07 03 11* | LINE 1          |
| 115. | sludges from on-site effluent treatment other than those mentioned in 07 03 11   | 07 03 12  | LINE 1          |
|      | wastes from the MFSU of organic plant protection products (except 02 01 08 and 02 01 09), wood preserving agents (except 03 02) and other biocides | 07 04     |                 |
| 116. | aqueous washing liquids and mother liquors   | 07 04 01* | LINE 7A         |
| 117. | organic halogenated solvents, washing liquids and mother liquors   | 07 04 03* | LINE 7B         |
| 118. | other organic solvents, washing liquids and mother liquids   | 07 04 04* | LINE 6B,7B      |
| 119. | halogenated still bottoms and reaction residues  | 07 04 07* | LINE 7A OR 7B   |
| 120. | other still bottoms and reaction residues  | 07 04 08* | LINE 7B         |

|      | 26   |           | YNOYPE          |
|------|--|-----------|-----------------|
| 121. | halogenated filter cakes and spent absorbents  | 07 04 09* | LINE 7B MINISTA |
| 122. | other filter cakes and spent absorbents  | 07 04 10* | LINE 4B         |
| 123. | sludges from on-site effluent treatment containing dangerous substances              | 07 04 11* | LINETE          |
| 124. | sludges from on-site effluent treatment other than those mentioned in 07             | 07 04 12  | LINE THE TAMPA  |
| 125. | solid wastes containing dangerous substances   | 07 04 13* | LINE 4B OR 7B   |
|      | wastes from the MFSU of pharmaceuticals  | 07 05     | on of           |
| 126. | aqueous washing liquids and mother liquors   | 07 05 01* | LINE 7A, 7B     |
| 127. | organic halogenated solvents, washing liquids and mother liquors                     | 07 05 03* | LINE 7B         |
| 128. | other organic solvents, washing liquids and mother liquors                           | 07 05 04* | LINE 6B, 7B     |
| 129. | halogenated still bottoms and reaction residues                                      | 07 05 07* | LINE 7A OR 7B   |
| 130. | other still bottoms and reaction residues  | 07 05 08* | LINE 7B         |
| 131. | halogenated filter cakes and spent absorbents  | 07 05 09* | LINE 7B         |
| 132. | other filter cakes and spent absorbents  | 07 05 10* | LINE 4B         |
| 133. | sludges from on-site effluent treatment containing dangerous substances              | 07 05 11* | LINE 7B         |
| 134. | sludges from on-site effluent treatment other than those mentioned in 07             | 07 05 12  | LINE 1          |
| 135. | solid wastes containing dangerous substances   | 07 05 13* | LINE 4B, 7B     |
| 136. | solid wastes other than those mentioned in 07 05 13                                  | 07 05 14  | LINE 4B,7A      |
|      | wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics | 07 06     |                 |
| 137. | aqueous washing liquids and mother liquors   | 07 06 01* | LINE 7A         |
| 138. | organic halogenated solvents, washing liquids and mother liquors                     | 07 06 03* | LINE 7B         |
| 139. | other organic solvents, washing liquids and mother liquors                           | 07 06 04* | LINE 6B, 7B     |
| 140. | halogenated still hottoms and reaction residues                                      | 07 06 07* | LINE 7A OR 7B   |
| 141. | other sill bottoms and reaction residues   | 07 06 08* | LINE 1          |
| 142. | halogenated filter cakes and spent absorbents  | 07 06 09* | LINE 7B         |
| 143. | other filter cakes and spent absorbents  | 07 06 10* | LINE 4B         |
| 144. | sludges from on-site effluent treatment containing dangerous substances              | 07 06 11* | LINE 1, 2       |
| 145. | sludges from on-site effluent treatment other than those mentioned in 07 06 11       | 07 06 12  | LINE 1, 2       |
|      | wastes from the MFSU of fine chemicals and chemical products not otherwise           | 07 07     |                 |
|      | specified  |           |                 |
|      | aqueous washing liquids and mother liquors   | 07 07 01* | LINE 7A OR 7B   |
| 146. |  |           |                 |
| 146. | organic halogenated solvents, washing liquids and mother liquors                     | 07 07 03* | LINE 7B         |

|      |  |           | YNO                 |
|------|--|-----------|---------------------|
| 149. | halogenated still bottoms and reaction residues  | 07 07 07* | LINE 7A OR 7B       |
| 150. | other still bottoms and reaction residues  | 07 07 08* | LINE B              |
| 151. | halogenated filter cakes and spent absorbents  | 07 07 09* | LINE 78             |
| 152. | other filter cakes and spent sbsorbents  | 07 07 10* | LINE 4B, YETA       |
| 153. | sludges from on-site effluent treatment containing dangerous substances  | 07 07 11* | LINE 7B             |
| 154. | sludges from on-site effluent treatment other than those mentioned in 07 07 11   | 07 07 12  | LINE 1, 7A          |
|      | WASTES FORM THE MANUFACTURE, FORMULATION,<br>SUPPLY AND USE (MFSU) OF COATINGS (PAINTS,<br>VARNISHES AND VITREOUS ENAMELS,) ADHESIVES,<br>SEALANTS AND PRINTING INKS | 08        |                     |
|      | wastes from MFSU and removal of paint and varnish  | 08 01     |                     |
| 155. | waste paint and varnish containing organic solvents or other dangerous substances  | 08 01 11* | LINE 6B OR 7B       |
| 156. | waste paint and varnish other than those mentioned in 08 01 11   | 08 01 12  | LINE 4B OR 7B       |
| 157. | sludges from paint or varnish containing organic solvents or other dangerous substances  | 08 01 13* | LINE 2 OR 7B        |
| 158. | sludges from paint or varnish other than those mentioned in 08 01 13   | 08 01 14  | LINE 1 OR 4B        |
| 159. | aqueous sludges containing paint or varnish containing organic solvents or other   | 08 01 15* | LINE 3              |
| 160. | dangerous substances aqueous sludges containing paint or varnish other than those mentioned in 08 01 15  | 08 01 16  | LINE 3              |
| 161. | wastes from paint or varnish removal containing organic solvents or other dangerous substances   | 08 01 17* | LINE 6B,7A OR 7B    |
| 162. | wastes from paint or varnish removal other than those mentioned in 08 01   | 08 01 18  | LINE 6B OR 7B       |
| 163. | aqueous suspensions containing paint or varnish containing organic solvents or other dangerous substances  | 08 01 19* | LINE 6B OR 7B       |
| 164. | aqueous suspensions containing paint or varnish other than those mentioned in 08 01 19   | 08 01 20  | LINE 7A             |
| 165. | waste paint or varnish remover   | 08 01 21* | LINE 4B OR 7A OR 7B |
|      | wastes from MFSU of other coatings (including ceramic materials)   | 08 02     |                     |
| 166. | waste coating powders  | 08 02 01  | LINE 4B OR 7A       |
| 167. | aqueous sludges containing ceramic materials   | 08 02 02  | LINE 3              |
| 168. | aqueous suspensions containing ceramic materials   | 08 02 03  | LINE 3              |
|      | wastes from MFSU of printing inks  | 08 03     |                     |
| 169. | aqueous sludges containing ink   | 08 03 07  | LINE 3              |
| 170. | aqueous liquid waste containing ink  | 08 03 08  | LINE 3              |
| 171. | waste ink containing dangerous substances  | 08 03 12* | LINE 4 B,7A OR 7B   |
| 172. | waste ink other than those mentioned in 08 03 12   | 08 03 13  | LINE 3, 4B,7A OR 7B |
| 173. | ink sludges containing dangerous substances  | 08 03 14* | LINE 4B OR 7B       |

|      |   |           | VI                 |
|------|---|-----------|--------------------|
| 174. | ink sludges other than those mentioned in 08 03 14  | 08 03 15  | LINE 4B,7A OR 7B   |
| 175. | waste etching solutions   | 08 03 16* | LINE 7B OR 8       |
| 176. | waste printing toner containing dangerous substances  | 08 03 17* | LINE 4B,7A OR 7B   |
| 177. | waste printing toner other than those mentioned in 08 03 17   | 08 03 18  | LINE 4B,7A OR 7B   |
| 178. | disperse oil  | 08 03 19* | LINE 7A            |
|      | wastes from MFSU of adhesives and sealants (including waterproofing products)                                   | 08 04     |                    |
| 179. | waste adhesives and sealants containing organic solvents or other dangerous substances                          | 08 04 09* | LINE 4B OR 7B      |
| 180. | waste adhesives and sealants other than those mentioned in 08 04 09   | 08 04 10  | LINE 4B OR 7B      |
| 181. | adhesive and sealant sludges containing organic solvents or other dangerous substances                          | 08 04 11* | LINE 6B OR 7B      |
| 182. | adhesive and sealant sludges other than those mentioned in 08 04 11   | 08 04 12  | LINE 7B            |
| 183. | aqueous sludges containing adhesives or scalants containing organic solvents or other dangerous substances      | 08 04 13* | LINE 6B,7A OR 7B   |
| 184. | aqueous sludges containing adhesives or sealants other than those mentioned in 08 04 13                         | 08 04 14  | 1,INE 4B ,6B OR 7B |
| 185. | aqueous liquid waste containing adhesives or sealants containing organic solvents or other dangerous substances | 08 04 15* | LINE 7A OR 7B      |
| 186. | aqueous liquid waste containing adhesives or sealants other than those mentioned in 08 04 15                    | 08 04 16  | LINE 7A            |
| 187. | resin oil   | 08 04 17* | LINE 7B            |
|      | wastes not otherwise specified in 08  | 08 05     |                    |
| 188. | waste isocyanates   | 08 05 01* | LINE 7B            |
|      | WASTES FROM THE PHOTOGRAPHIC INDUSTRY   | 09        |                    |
|      | wastes for the photographic industry  | 09 01     |                    |
| 189. | water-based developer and activator solutions   | 09 01 01* | LINE 7A OR 7B      |
| 190. | water-based offset plate developer solutions  | 09 01 02* | LINE 7A OR 7B      |
| 191. | solvent-based developer solutions   | 09 01 03* | LINE 7A OR 7B      |
| 192. | fixed solutions   | 09 01 04* | LINE 7A OR 7B      |
| 193. | bleach solutions and bleach fixer solutions   | 09 01 05* | LINE 7A OR 7B      |
|      | wastes containing silver from on-site treatment of photographic wastes  | 09 01 06* | LINE 7A OR 7B      |
| 194. | photographic film and paper containing silver or silver compounds   |           | LINE 4B,7A OR 7B   |
| 195. | photographic film and paper free of silver or silver compounds  | 09 01 07  | LINE 4B            |
| 196. | single-use cameras containing batteries included in 16 06 01, 16 06 02 or                                       | 09 01 08  | LINE 7A OR 7B      |
| 197. | 16 06 03 WASTES FROM THERMAL PROCESSES  | 09 01 11* |                    |
|      |   | 10        |                    |
|      | wastes from power stations and other combustion plants (except 19)  | 10 01     |                    |
| 198. | Flying ash  | 10 01 04* | LINE 4B            |

|      | 29  |           | DOYE                |
|------|---|-----------|---------------------|
| 199. | Furnace ash, slag and boiler dust from common cremation containing  | 10 01 14* | LINE 7A OR 7B MINE  |
| 200. | dangerous substances Flying ash from common cremation containing dangerous substances   | 10 01 16* | LINE 74 OR 2B       |
| 201. | Wastes from cleaning gases containing dangerous substances  | 10 01 18* | LINE 3, APOR 7B TO  |
| 202. | sludges from on-site effluent treatment containing dangerous substances   | 10 01 20* | LINE 2 OR TO TANK   |
| 203. | sluges from on-site effluent treatment other than those mentioned in 10 01  | 10 01 21  | LINE 1 OR 7A        |
| 204. | sluges from on-site effluent treatment other than those mentioned in 10 01  | 10 01 22* | LINE 3              |
| 205. | aqueous sludges from boiler cleansing other than those mentioned in 10 01   | 10 01 23  | LINE 3              |
|      | WASTES FROM CHEMICAL SURFACE TREATMENT AND<br>COATING OF METALS AND OTHER MATERIALS; NON-<br>FERROUS HYDRO-METALLURGY   | 11        |                     |
|      | wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising) | 11 01     |                     |
| 206, | pickling acids  | 11 01 05* | LINE 7B OR 8        |
| 207. | acids not otherwise specified   | 11 01 06* | LINE 7B OR 8        |
| 208. | pickling bases  | 11 01 07* | LINE 7B OR 8        |
| 209. | phosphatising sludges   | 11 01 08* | LINE 7A OR 7B       |
| 210. | sludges and filter cakes containing dangerous substances  | 11 01 09* | LINE 4B OR 7B       |
| 211. | sludges and filter cakes other than those mentioned in 11 01 09   | 11 01 10  | LINE 1 OR 4B        |
| 212. | aqueous rinsing liquids containing dangerous substances   | 11 01 11* | LINE 3 OR 7A        |
| 213. | aqueous rinsing liquids other than those mentioned in 11 01 11  | 11 01 12  | LINE 3 OR 7A        |
| 214. | degreasing wastes containing dangerous substances   | 11 01 13* | LINE 7B OR 4B       |
| 215. | degreasing wastes other than those mentioned in 11 01 13  | 11 01 14  | LINE 7A OR 4B       |
| 216. | eluate and sludges from membrane systems or ion exchange systems containing dangerous substances  | 11 01 15* | LINE 7A OR 7B       |
| 217. | 217.saturated or spent ion exchange resin218.s  | 11 01 16* | LINE 7B OR 4B       |
| 218. | other was2tes containing dangerous substances   | 11 01 98* | LINE 7B OR 4B       |
|      | waste from non-ferrous hydrometallurgical processes   | 11 02     |                     |
| 219. | sludges from zinc hydrometallurgy (including jarosite, goethite)  | 11 02 02* | LINE 1 OR 7B        |
| 220. | wastes from the production of anodes for aqueous electrolytical processes   | 11 02 03  | LINE 6B,7A OR 7B    |
| 221. | wastes from copper hydrometallurgical processes containing dangerous substances   | 11 02 05* | LINE 7A OR 7B       |
| 222. | wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05  | 11 02 06  | LINE 7A OR 7B OR 4B |
| 223. | other wastes containing dangerous substances  | 11 02 07* | LINE 7A OR 7B OR 4B |
|      | sludges and solids from tempering processes   | 11 03     |                     |
| 224. | waste containing cyanide  | 11 03 01* | LINE 7B             |

| 225. | other wastes  | 11 03 02* | LINE 7A OR 7B OR 4B                      |
|------|---|-----------|--|
|      | WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS        | 12        | NAdo                                     |
|      | wastes from shaping and physical and mechanical surface treatment of metals and plastics        | 12 01     | 10 10 10 10 10 10 10 10 10 10 10 10 10 1 |
| 226. | mineral-based machining oils containing halogens (except emulsions and solutions)               | 12 01 06* | LINE 7A OR 7B                            |
| 227. | mineral-based machining oils free of halogens (except emulsions and solutions)                  | 12 01 07* | LINE 7A                                  |
| 228. | machining emulsions and solutions containing halogens   | 12 01 08* | LINE 7A OR 7B                            |
| 229. | machining emulsions and solutions free of halogens  | 12 01 09* | LINE 7A                                  |
| 230. | synthetic machining oils  | 12 01 10* | LINE 7A                                  |
| 231. | spent waxes and fats  | 12 01 12* | LINE 4B OR 7B                            |
| 232. | machining sludges containing dangerous substances   | 12 01 14* | LINE 1 OR 7B                             |
| 233. | waste blasting material containing dangerous substances   | 12 01 16* | LINE 1 OR 7A OR 7B                       |
| 234. | metal sludge (grinding, honing and lapping sludge) containing oil                               | 12 01 18* | LINE 2                                   |
| 235. | readily biodegradable machining oil   | 12 01 19* | LINE 7A                                  |
| 236. | spent grinding bodies and grinding materials containing dangerous substances                    | 12 01 20* | LINE 7B OR 4B                            |
|      | wastes from water and steam degreasing processes (except 11)                                    | 12 03     |  |
| 237. | aqueous washing liquids   | 12 03 01* | LINE 7A                                  |
| 238. | steam degreasing wastes   | 12 03 02* | LINE 7A                                  |
|      | OIL WASTES AND WASTES OF LIQUID FUELS (except edible oils, and those in chapters 05, 12 and 19) | 13        |  |
|      | waste hydraulic oils  | 13 01     |  |
| 239. | hydraulic oils, containing PCBs (15)  | 13 01 01* | LINE 7B                                  |
| 240. | chlorinated emulsions   | 13 01 04* | LINE 7A OR 7B                            |
| 241. | non-chlorinated emulsions   | 13 01 05* | LINE 7A                                  |
| 242. | mineral-based chlorinated hydraulic oils  | 13 01 09* | LINE 7A OR 7B                            |
| 243. | mineral-based non-chlorinated hydraulic oils  | 13 01 10* | LINE 7A                                  |
| 244. | synthetic hydraulic oils  | 13 01 11* | LINE 7A                                  |
| 245. | readily biodegradable hydraulic oils  | 13 01 12* | LINE 7A                                  |
| 246. | other hydraulic oils  | 13 01 13* | LINE 7A                                  |
|      | waste engine, gear and lubricating oils   | 13 02     |  |
| 247. | mineral-based chlorinated engine, gear and lubricating oils                                     | 13 02 04* | LINE 7A OR 7B                            |
| 248. | mineral-based non-chlorinated engine, gear and lubricating oils                                 | 13 02 05* | LINE 7A                                  |
| 249. | synthetic engine, gear and lubricating oils   | 13 02 06* | LINE 7A                                  |

| 250. | readily biodegradable engine, gear and lubricating oils  | 13 02 07* | LINE 7A VITOY     |
|------|--|-----------|-------------------|
| 251. | other engine, gear and lubricating oils  | 13 02 08* | LINE 7A STANSI    |
| 1    | waste insulating and heat transmission oils  | 13 03     | SA do             |
| 252. | insulating or heat transmission oils containing PCBs   | 13 03 01* | LINE              |
| 253. | mineral-based chlorinated insulating and heat transmission oils other than those mentioned in 13 03 01 | 13 03 06* | LINE 7A OR 78 A O |
| 254. | mineral-based non-chlorinated insulating and heat transmission oils                                    | 13 03 07* | LINE 7A           |
| 255. | synthetic insulating and heat transmission oils  | 13 03 08* | LINE 7A           |
| 256. | readily biodegradable insulating and heat transmission oils  | 13 03 09* | LINE 7A           |
| 257. | other insulating and heat transmission oils  | 13 03 10* | LINE 7A           |
|      | bilge oils   | 13 04     |                   |
| 258. | bilge oils from inland navigation  | 13 04 01* | LINE 7A           |
| 259. | bilge oils from jetty sewers   | 13 04 02* | LINE 7A           |
| 260. | bilge oils from other navigation   | 13 04 03* | LINE 7A           |
|      | oil/water separator contents   | 13 05     |                   |
| 261. | solids from grit chambers and oil/water separators   | 13 05 01* | LINE 2,4B         |
| 262. | sludges from oil/water separators  | 13 05 02* | LINE 1, 2 OR 1&2  |
| 263. | interceptor sludges  | 13 05 03* | LINE 1, 2 OR 1&2  |
| 264. | oil from oil/water separators  | 13 05 06* | LINE 7A           |
| 265. | oily water from oil/water separators   | 13 05 07* | LINE 7A           |
| 266. | mixtures of wastes from grit chambers and oil/water separators   | 13 05 08* | LINE 2            |
|      | wastes of liquid fuels   | 13 07     |                   |
| 267. | fuel oil and diesel  | 13 07 01* | LINE 7A           |
| 268. | petrol   | 13 07 02* | LINE 7A           |
| 269. | other fuels (including mixtures)   | 13 07 03* | LINE 7A           |
|      | oil wastes not otherwise specified   | 13 08     | -20               |
| 270. | desalter sludges or emulsions  | 13 08 01* | LINE 1, 2 OR 1&2  |
| 271. | other emulsions  | 13 08 02* | LINE 7A           |
| 272. | greases  | 13 08 99* | LINE 7A OR 7B     |
|      | WASTE ORGANIC SOLVENTS, REFRIGERANTS AND<br>PROPELLANTS (except 07 and 08)                             | 14        |                   |
|      | waste organic solvents, refrigerants and foam/aerosol propellants                                      | 14 06     |                   |
|      | chlorofluorocarbons, HCFC, HFC   | 71, 1131  | LINE 7B           |

|      | ather tedes and at the second at  |             |                                 |
|------|---|-------------|---------------------------------|
| 274. | other halogenated solvents and solvent mixtures   | 14 06 02*   | LINE 7B                         |
| 275. | other solvents and solvent mixtures   | 14 06 03*   | LINE 6B                         |
| 276. | sludges or solid wastes containing halogenated solvents   | 14 06 04*   | LINE 7B                         |
| 277. | sludges or solid wastes containing other solvents   | 14 06 05*   | LINE 6B OR 7B                   |
|      | WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER  MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED   | 15          | KOTOL MAK                       |
|      | packaging (including separately collected municipal packaging waste)  | 15 01       |                                 |
| 278. | paper and cardboard packaging   | 15 01 01    | LINE 7A                         |
| 279. | plastic packaging   | 15 01 02    | LINE 7A                         |
| 280. | wooden packaging  | 15 01 03    | LINE 7A                         |
| 281. | metallic packaging  | 15 01 04    | LINE 7A                         |
| 282. | composite packaging   | 15 01 05    | LINE 7A                         |
| 283. | mixed packaging   | 15 01 06    | LINE 7A                         |
| 284. | glass packaging   | 15 01 07    | LINE 7A                         |
| 285. | packaging containing residues of or contaminated by dangerous substances  | 15 01 10*   | LINE 4A, 4B 4C OR/& 4I<br>OR 7B |
| 286. | metallic packaging containing a dangerous solid porous matrix (for example asbestos),   | 15 01 11*   | LINE 4A OR/& 4D                 |
|      | including empty pressure containers absorbents, filter materials, wiping cloths and protective clothing   | 15 02       |                                 |
| 287. | absorbents, filter materials (including oil filters not otherwise specified), wiping cloths,  | 15 02 02*   | LINE 4B OR 4C                   |
| 288. | protective clothing contaminated by dangerous substances absorbents, filter materials, wiping cloths and protective clothing other than those   | 15 02 03    | LINE 4B OR 4C                   |
|      | mentioned in 15 02 02 WASTES NOT OTHERWISE SPECIFIED IN THE LIST  |             |                                 |
|      | end-of-life vehicles from different means of transport (including off-<br>road machinery) and wastes from dismantling of end-of-life vehicles<br>and vehicle maintenance (except 13, 14, 16 06 and 16 08) | 16<br>16 01 |                                 |
| 289. | oil filters   | 16 01 07*   | LINE 4A                         |
| 290. | components containing mercury   | 16 01 08*   | LINE 7B                         |
| 291. | components containing PCBs  | 16 01 09*   | LINE 7B                         |
| 292. | brake pads containing asbestos  | 16 01 11*   | LINE 7B                         |
| 293. | brake pads other than those mentioned in 16 01 11   | 16 01 12    | LINE 4B OR 7A                   |
| 294. | brake fluids  | 16 01 13*   | LINE 7A                         |
| 295. | antifreeze fluids containing dangerous substances   | 16 01 14*   | LINE 6A                         |
| -    | antifreeze fluids other than those mentioned in 16 01 14  | 16 01 15    | LINE 6A                         |

|      | Tanks for liquefied gas  |           | LINE 7A             |
|------|--|-----------|---------------------|
| 297. | lanks for inquencu gas   | 16 01 16  | VNO                 |
| 298. | Ferrous metal  | 16 01 17  | LINE MY             |
| 299. | Non ferrous metal  | 16 01 18  | LINE TA             |
| 300. | hazardous components other than those mentioned in 16 01 07 to 16 01 11 and 16 01 13 and 16 01 14                  | 16 01 21* | LINE 7A OR 3B       |
|      | wastes from electrical and electronic equipment  | 16 02     | META O              |
| 301. | Transformers and capacitors containing PCB's   | 16 02 09* | LINE 7B             |
| 302. | Discarded equipment containing or contaminated by PCB's other than those mentioned in 16 02 09                     | 16 02 10* | LINE 7B             |
| 303. | Discarded equipment containing chlorofluorocarbons, HCFC, HFC  | 16 02 11* | LINE 7A             |
| 304. | Discarded equipment containing free asbestos   | 16 02 12* | LINE 7B             |
| 305. | Discarded equipment containing hazardous components other than those mentioned in 16 02 09 to 16 02 12             | 16 02 13* | LINE 7A OR 7B OR 4B |
| 306. | Discarded equipment other than those mentioned in 16 02 09 to 16 02 13   | 16 02 14  | LINE 7A OR 7B OR 4B |
| 307. | hazardous components removed from discarded equipment  | 16 02 15* | LINE 7A OR 7B OR 4B |
| 308. | components removed from discarded equipment other than those mentioned in 16 02 15                                 | 16 02 16  | LINE 7A OR 7B OR 4B |
|      | off-specification batches and unused products  | 16 03     |                     |
| 309. | inorganic wastes containing dangerous substances   | 16 03 03* | LINE 7A ,7B OR 8    |
| 310. | inorganic wastes other than those mentioned in 16 03 03  | 16 03 04  | LINE 7A ,7B OR 8    |
| 311. | organic wastes containing dangerous substances   | 16 03 05* | LINE 7A,7B OR 4B    |
| 312. | organic wastes other than those mentioned in 16 03 05  | 16 03 06  | LINE 7A,7B OR 4B    |
|      | gases in pressure containers and discarded chemicals   | 16 05     |                     |
| 313. | gases in pressure containers (including halons) containing dangerous substances                                    | 16 05 04* | LINE 4B OR 7B       |
| 314. | gases in pressure containers other than those mentioned in 16 05 04  | 16 05 05  | LINE 7A OR 7B       |
| 315. | laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals | 16 05 06* | LINE 7A OR 7B       |
| 316. | discarded inorganic chemicals consisting of or containing dangerous  | 16 05 07* | LINE 7A OR 7B       |
| 317. | substances discarded organic chemicals consisting of or containing dangerous                                       | 16 05 08* | LINE 7A OR 7B OR 4I |
| 318. | substances discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08                        | 16 05 09  | LINE 7A OR 7B OR 4I |
|      | hatteries and accumulators   | 16 06     |                     |
| 319. | lcad batteries   | 16 06 01  | LINE 7A OR 7B       |
| 320. | Ni-Cd batteries  | 16 06 02  | LINE 7A OR 7B       |
| 320. | mercury-containing batteries   | 16 06 03  | LINE 7A OR 7B       |
| 321. | alkaline batteries (except 16 06 03)   | 16 06 04  | LINE 7A OR 7B       |
| 322. | other batteries and accumulators   | 16 06 05  | LINE 7A OR 7B       |
| 323. |  |           |                     |

| -    | Wester from transmitted at the Land   |           | WI.                  |
|------|---|-----------|----------------------|
|      | Wastes from transport tank, storage tank and barrel cleaning (except 05 and 13)                     | 16 07     | A. T. R. M. S.       |
| 325. | Wastes containing oil   | 16 07 08* | LINE 1 OR 2 OR 7/5   |
| 326. | Wastes containing other dangerous substances  | 16 07 09* | LINE 1 OR 2 OR TAGTA |
| 327. | Wastes not otherwise specified  | 16 07 99  | LINE 1 OR 2 OR 7A    |
|      | spent catalysts   | 16 08     |                      |
| 328. | spent catalysts containing dangerous transition metals (17) or dangerous transition metal compounds | 16 08 02* | LINE 1 7B            |
| 329. | spent catalysts containing phosphoric acid  | 16 08 05* | LINE 7B              |
| 330. | spent liquids used as catalysts   | 16 08 06* | LINE 7A OR 7B        |
| 331. | spent catalysts contaminated with dangerous substances  | 16 08 07* | LINE 7B              |
|      | oxidising substances  | 16 09     |                      |
| 332. | permanganates, for example potassium permanganate   | 16 09 01* | LINE 7A OR 7B        |
| 333. | chromates, for example potassium chromate, potassium or sodium dichromate                           | 16 09 02* | LINE 7A OR 7B        |
| 334. | peroxides, for example hydrogen peroxide  | 16 09 03* | LINE 7A OR 7B        |
| 335. | oxidising substances, not otherwise specified   | 16 09 04* | LINE 7A OR 7B        |
|      | aqueous liquid wastes destined for off-site treatment   | 16 10     |                      |
| 336. | aqueous liquid wastes containing dangerous substances   | 16 10 01* | LINE 7A              |
| 337. | aqueous liquid wastes other than those mentioned in 16 10 01  | 16 10 02  | LINE 7A              |
| 338. | aqueous concentrates containing dangerous substances  | 16 10 03* | LINE 7A              |
| 339. | aqueous concentrates other than those mentioned in 16 10 03   | 16 10 04  | LINE 7A              |
|      | CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)               | 17        |                      |
|      | wood, glass and plastic   | 17 02     |                      |
| 340. | glass   | 17 02 02  | LINE 7A              |
| 341. | plastic   | 17 02 03  | LINE 7A              |
| 342. | glass, plastic and wood containing or contaminated with dangerous substances                        | 17 02 04* | LINE 4B OR 7A        |
|      | Bituminous mixtures, coal tar, and tarred products  | 17 03     |                      |
| 343. | Bituminous mixtures containing coal tar   | 17 03 01* | LINE 7A OR 7B        |
| 344. | Coal tar and tarred products  | 17 03 03* | LINE 7A OR 7B        |
|      | Metals (including their alloys)   | 17 04     |                      |
| 345. | Mixed metals  | 17 04 07  | LINE 7A              |

|      | 35  |           | YNOYPH                  |
|------|---|-----------|-------------------------|
| 346. | Metal waste contaminated with dangerous substances  | 17 04 09* | LINE 4B OR 4D OR 78     |
|      | soil (including excavated soil from contaminated sites), stones and dredging spoil  | 17 05     | OPK.                    |
| 347. | soil and stones containing dangerous substances   | 17 05 03* | LINE 1 OR 2 OR 182      |
| 348. | Dredging spoil containing dangerous substances  | 17 05 05* | LINE 1 OR 2 OR 18.24 OF |
|      | Insulation materials and asbestos-containing construction materials   | 17 06     |                         |
| 349. | Insulation materials containing asbestos  | 17 06 01* | LINE 7A OR 7B           |
| 350. | Other insulation materials consisting of or containing dangerous substances   | 17 06 03* | LINE 4B                 |
| 351. | Insulation materials other than those mentioned in 17 06 01 and 17 06 03  | 17 06 04  | LINE 4B                 |
| 352. | Construction materials containing asbestos  | 17 06 05* | LINE 7A OR 7B           |
|      | Gypsum-based construction material  | 17 08     |                         |
| 353. | Gypsuпi-based construction materials contaminated with dangerous substances   | 17 08 01* | LINE 1 OR 2 OR 1&2      |
|      | Other construction and demolition waste   | 17 09     |                         |
| 354. | Construction and demolition wastes containing mercury   | 17 09 01* | LINE 7B                 |
| 355. | Construction and demolition wastes containing PCB   | 17 09 02* | LINE 7B                 |
| 356. | Other construction and demolition wastes (including mixed wastes) containing dangerous substances   | 17 09 03* | LINE 1 OR 4B OR 7B      |
|      | WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (except kitchen and restaurant wastes not arising from immediate health care)                                     | 18        |                         |
|      | wastes from natal care, diagnosis, treatment or prevention of disease in humans   | 18 01     |                         |
| 357. | chemicals consisting of or containing dangerous substances  | 18 01 06* | LINE 7A OR 7B           |
| 358. | cytotoxic and cytostatic medicines  | 18 01 08* | LINE 7A OR 7B           |
| 359. | amalgam waste from dental care  | 18 01 10* | LINE 7A OR 7B           |
|      | wastes from research, diagnosis, treatment or prevention of disease involving animals   | 18 02     |                         |
| 360. | chemicals consisting of or containing dangerous substances  | 18 02 05* | LINE 7A OR 7B           |
| 361. | cytotoxic and cytostatic medicines  | 18 02 07* | LINE 7A OR 7B           |
| 362. | medicines other than those mentioned in 18 02 07  | 18 02 08* | LINE 7A OR 7B           |
|      | WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-<br>SITE WASTE WATER TREATMENT PLANTS AND THE<br>PREPARATION OF WATER INTENDED FOR HUMAN<br>CONSUMPTION AND WATER FOR INDUSTRIAL USE | 19        |                         |

|      | grease and oil mixture from oil/water separation containing only edible oil  |            | LINE 7.6 VIV        |
|------|--|------------|---------------------|
| 390. | and fats   | 19 08 09   | LINE 7A             |
| 391. | grease and oil mixture from oil/water separation other than those mentioned in 19 08 09  | 19 08 10*  | LINEJA              |
| 392. | sludges containing dangerous substances from biological treatment of industrial waste water                                    | 19 08 11*  | LINE OR 2           |
| 393. | sludges from biological treatment of industrial waste water other than those mentioned in 19 08 11                             | 19 08 12   | LINE 1 OR TAG       |
| 394. | sludges containing dangerous substances from other treatment of industrial waste water   | 19 08 13*  | LINE 1 OR 2         |
| 395. | sludges from other treatment of industrial waste water other than those mentioned in 19 08 13                                  | 19 08 14   | LINE 1              |
|      | wastes from the preparation of water intended for human consumption or water for industrial use                                | 19 09      |                     |
| 396. | sludges from water clarification   | 19 09 02   | LINE 1              |
| 397. | sludges from decarbonation   | 19 09 03   | LINE 7A             |
| 398. | spent activated carbon   | 19 09 04   | LINE 4B OR 7A       |
| 399. | saturated or spent ion exchange resins   | 19 09 05   | LINE 4B OR 7B       |
| 400. | solutions and sludges from regeneration of ion exchangers  | 19 09 06   | LINE 1 OR 7A        |
|      | wastes from shredding of metal-containing wastes   | 19 10      | Sa to all           |
| 401. | iron and steel waste   | 19 10 01   | LINE 7A             |
| 402. | non-ferrous wastc  | 19 10 02   | LINE 7A             |
| 403. | fluff-light fraction and dust containing dangerous substances  | 19 10 03*  | LINE 4B OR 7A       |
| 404. | fluff-light fraction and dust other than those mentioned in 19 10 03   | 19 10 04   | LINE 4B OR 7A       |
| 405. | fluff-light fraction and dust containing dangerous substances  | 19 10 05*  | LINE 4B OR 7B       |
| 406. | other fractions other than those mentioned in 19 10 05   | 19 10 06   | LINE 4B OR 7A       |
|      | wastes from oil regeneration   | 19 11      |                     |
| 407. | spent filter clays   | 19 11 01*  | LINE 1 OR 2         |
| 408. | acid tars  | 19 11 02*  | LINE 7A OR 7B       |
| 409. | aqueous liquid wastes  | 19 11 03*  | LINE 7A             |
| 410. | wastes from cleaning of fuel with bases  | 19 11 04*  | LINE 2 OR 7A        |
| 411. | sludges from on-site effluent treatment containing dangerous substances  | 19 11 ()5* | LINE 1 OR 2 OR 1&2  |
| 412. | sludges from on-site effluent treatment other than those mentioned in 19 11 05   | 19 11 06   | LINE 1 OR 2 OR 1&2  |
| 413. | wastes from flue-gas cleaning  | 19 11 07*  | LINE 4B OR 7A OR 7E |
|      | wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified | 19 12      | LINE 1 OR 2 OR 1&2  |
| 414. | l'aper and cardboard   | 19 12 01   | LINE 7A             |
| 415. | Ferrous metals   | 19 12 02   | LINE 7A             |
| 416. | Non-ferrous metal  | 19 12 03   | LINE 7A             |

| - 0 -                                | Plastic and rubber  |  | VNOVA   |
|--------------------------------------|---|--|---|
| 417.                                 | Trastic and Tubber  | 19 12 04   | LINE 7A MINE  |
| 418.                                 | Glass   | 19 12 05   | LANE 78   |
| 419.                                 | wood containing dangerous substances  | 19 12 06*  | LINE 4B   |
| 420.                                 | Wood except from those that are contained at point 19 12 06   | 19 12 07   | LINE 7A   |
| 421.                                 | Textiles  | 19 12 08   | LINE 4B OR 7A   |
| 422.                                 | Minerals (for example sand, stones)   | 19 12 09   | LINE 1 OR TAOP  |
| 423.                                 | Combustible waste (refuse derived fuel RDF)   | 19 12 10   | LINE 4B OR 7A   |
| 424.                                 | other wastes (including mixtures of materials) from mechanical treatment of waste containing dangerous substances   | 19 12 11*  | LINE 4B OR 7A   |
| 425.                                 | other wastes (including mixtures of materials) from mechanical treatment of waste other than those mentioned in 19 12 11  | 19 12 12   | LINE 4B OR 7A   |
|                                      | wastes from soil and groundwater remediation  | 19 13  |   |
| 426.                                 | solid wastes from soil remediation containing dangerous substances  | 19 13 01*  | LINE 1 OR 2   |
| 427.                                 | solid wastes from soil remediation other than those mentioned in 19 13 01   | 19 13 02   | LINE 1  |
| 428,                                 | sludges from soil remediation containing dangerous substances   | 19 13 03*  | LINE 1 OR 2   |
| 432.                                 | sludges from groundwater remediation other than those mentioned in 19 13 05   | 19 13 06   | LINE 1  |
| 433.                                 | aqueous liquid wastes and aqueous concentrates from groundwater remediation containing dangerous substances   | 19 13 07*  | LINE 3  |
| 434.                                 | aqueous liquid wastes and aqueous concentrates from groundwater remediation other than those mentioned in 19 13 07  | 19 13 08   | LINE 3  |
|                                      | MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR<br>COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES)<br>INCLUDING SEPARATELY COLLECTED FRACTIONS   | 20   |   |
|                                      | separately collected fractions (except 15 01)   | 20 01  |   |
| 435.                                 | solvents  | 20 01 13*  | LINE 6B OR 7B   |
| 436.                                 | acids   | 20 01 14*  | LINE 7B OR 8  |
| 437.                                 | alkalines   | 20 01 15*  | LINE 7B OR 8  |
| 438.                                 | photochemicals  | 20 01 17*  | LINE 7B   |
| 439.                                 | pesticides  | 20 01 19*  | LINE 7B   |
| 440.                                 | fluorescent tubes and other mercury-containing waste  | 20 01 21*  | LINE 5 OR 7B  |
| 441.                                 | Aerosol   | 20 01 22   | LINE 4B OR 7B   |
| 442.                                 | discarded equipment containing chlorofluorocarbons  | 20 01 23*  | LINE 7A OR 7B   |
| 443.                                 | edible oils and fats  | 20 01 25   | LINE 7A OR 7B   |
| 444.                                 | oil and fat other than those mentioned in 20 01 25  | 20 01 26*  | LINE 7A   |
|                                      |   |  | Dille IX  |
| 445                                  | paint, inks, adhesives and resins containing dangerous substances   | 20.01.27*  | LINE AR OR 7R   |
| 445.<br>446.                         | paint, inks, adhesives and resins containing dangerous substances paint, inks, adhesives and resins other than those mentioned in 20 01 27  | 20 01 27*  | LINE 4B OR 7B<br>LINE 4B                                  |
|                                      |   |  | LINE 4B   |
| 446.                                 | paint, inks, adhesives and resins other than those mentioned in 20 01 27  | 20 01 28<br>20 01 29*                                      |   |
| 446.<br>447.                         | paint, inks, adhesives and resins other than those mentioned in 20 01 27  detergents containing dangerous substances  | 20 01 28<br>20 01 29*<br>20 01 30                          | LINE 4B LINE 4B LINE 7A OR 7B                             |
| 446.<br>447.<br>448.                 | paint, inks, adhesives and resins other than those mentioned in 20 01 27  detergents containing dangerous substances detergents other than those mentioned in 20 01 29  | 20 01 28<br>20 01 29*                                      | LINE 4B   |
| 446.<br>447.<br>448.<br>449.<br>450. | paint, inks, adhesives and resins other than those mentioned in 20 01 27  detergents containing dangerous substances detergents other than those mentioned in 20 01 29  cytotoxic and cytostatic medicines  | 20 01 28<br>20 01 29*<br>20 01 30<br>20 01 31*             | LINE 4B LINE 4B LINE 7A OR 7B LINE 7A OR 7B               |
| 446.<br>447.<br>448.<br>449.         | paint, inks, adhesives and resins other than those mentioned in 20 01 27  detergents containing dangerous substances detergents other than those mentioned in 20 01 29  cytotoxic and cytostatic medicines medicines other than those mentioned in 20 01 31  batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted | 20 01 28<br>20 01 29*<br>20 01 30<br>20 01 31*<br>20 01 32 | LINE 4B LINE 4B LINE 7A OR 7B LINE 7A OR 7B LINE 7A OR 7B |

Receipt no: 0071

Date: 03/12/2019

In accordance with the power vested in me by the Sworn Translators (Registration and Regulation of services in the Republic of Cyprus) Law, (Law 45(1)/2019), I hereby certify that this text in **ENGLISH** is a true and accurate translation of the attached document in the **GREEK** language.

Name and surname of Sworn Translator:

OLVIA CONSTANTINOU

Registration No: 027

Approved language combination: EL-EN-FR-IT

Signature: Ohis Contact

Stamp duty:

OLVIA CONSTANTINOU
Sworn Translator
14 a Iliados str. CY 4046
Limassol - Cyprus
Tal: +357 99 560 168, olviam@cytanet.com.cy





[This page has intentionally been left blank.]

### **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 5.1 National Level Data Collection

80754









[This page has intentionally been left blank.]

MoEW (also a regulator) Mandate: The Ministry of Energy and Water is responsible for water, electricity, oil, minerals, mining and quarrying.

The government of Lebanon has announced its intention to join the Extractive Industries Transparency Initiative ("EITI") with the aim to enhance transparency and accountability in Lebanon's oil and gas sector. The EITI is a voluntary initiative through which the government of Lebanon will commit to publishing reports on how the government manages the oil and gas resources. It should be noted, however, that the Lebanese government has yet to make a formal commitment to joining this initiative.

#### Oil and Gas Sector

Lebanon's intention to join the EITI has been welcomed nationally and internationally. How will this take place? What are the main issues facing the commitment of joining EITI? How are these being overcome?

#### Electricity sector

What are the main issues facing the activities of the electricity sector in Lebanon? What future plans are there?

Are there any recent studies that you could let us know about?

#### Water sector

What are the main issues facing the water sector? Are there any regional variations? What development plans are in place for this sector?

#### Formal/illegal sand or gravel extraction in coastal regions

Can you confirm the status of the sand/gravel extraction that takes place along the coastline? Where are prime locations where it takes place? What are the demographics of those doing it? (male/female/foreign/national/youth?)

Legislation states that it is illegal can you confirm?

#### Potential Impacts

Do you feel that the exploration project (3 months) will have any potential impact? Which other stakeholders might be A) potentially affected by or B) interested in the project activities?

Ministry of Culture, Directorate General of Antiquities, is responsible for the protection, promotion and excavation activities in all sites of national heritage in Lebanon Directorate of Archaeological Monuments and Built Heritage

It is recognised that there are a number of antiquities on the coast of Lebanon and some have been designated UNESCO world heritage sites, others have not yet got this status. Could you share with us any listings in the general antiquities inventory, recognized or categorized cultural property lists which are appropriate to the shoreline of Lebanon?

Of these catalogued sites are there which have particular importance? If so which ones? Are here any particular studies or research you could share with us?

What legislation protects these antiquities? Is there any recent legislation? Is the legislation adequate for the protection of these sites?

Does the ministry come up against any issues enforcing legislation?

It is recognised that Lebanon is a popular Tourist destination and one of the attractions is the cultural heritage and the antiquities. What proportion of tourists come and visit places of archaeological sites? (particularly on the coastline here in Lebanon?)

Are there any archaeological studies planned for locations/sites on the coastline? Is there any international funding designated to particular sites?

#### **Potential Impacts**

Do you feel that the exploration project (3 months) will have any potential impacts on the sector? Which other stakeholders might be A) potentially affected by or B) interested in the project activities?

## Ministry of Agriculture Directorate of Fisheries and Aquaculture Facilitator:

Please explain that we have undertaken baseline studies at local level and carried out interviews with fishermen, and those within the fisheries supply chain. As part of our study we would also like to collect information from the Ministry.

#### General

What are the roles and functions of the Ministry of Agriculture (Directorate of Fisheries and Aquaculture)?

There are few up-to-date statistics available on the fisheries sector as CAS captures data relating to agricultural production but not fisheries, can you point us in the direction of any unofficial data/ studies undertaken in the sector to get an up-to-date snap shot annual catches/fleet size/contribution to GDP and local economy? Are there plans to track the sector? What main issues does the fisheries sector face in Lebanon (fleet/stock/methods-net etc)? What long term development plans does the sector have?

What is the status of fish stocks? Are there any plans to protect/support this?

#### Legislation

The legislation stipulates that fishing can only be carried out within a 6 nautical mile limit from the coastline. Is this largely upheld? Is it enforced at all? How? Is there any other legislation that is pertinent to our study?

#### Fishing locations

What are the fishing areas along the coastline in Lebanon? Where are the prime areas that fishing takes place? Any reason that people fish in certain locations?

What are the main fishing seasons?

Are there any particular seasonal movements that the project may need to know about? How far out to sea do sports fishermen travel?

Do any foreign vessels fish in the sea off shore Lebanon? Is this an issue?

#### Marketing

It is understood that fish sales in Lebanon are mainly through auctions to fishmongers/restaurants/individuals. There is one official Central Fish Auction Yard next to Beirut Sea Port and a fish auction yard/fish stalls at each fishing port which is run by the fishermen cooperative at that port. Do you know how many auction yards there are? Detail of sales/revenue/taxes? Are records tracked? Is it enforced? What is the extent of fishing sales on the informal economy?

#### Organisation

What is the function of fishing syndicates? How many are there? Membership? How many fishing cooperatives are there in the country? How many? What is the demographic characteristic of people carrying out fishing?

Are there any particular places on the coastline where there is a high concentration of fishermen?

#### Potential Impacts

Do you feel that the exploration project (3 months) will have any potential impact on the fishing sector?

Which other stakeholders might be A) potentially affected by or B) interested in the project activities?

## Ministry of Social Affairs Department of social welfare and or Department of Social Development

#### General

We have conducted local level baseline fieldwork on social aspects. We recognise that the Ministry is an important stakeholder and would like to ask some questions.

What social development progress has taken place in Lebanon recently?

What are the main issues facing progress? How are they being tackled?

What social protection is available to citizens/non citizens? (probe pension/child care)

#### Vulnerable groups

We are developing a profile of who are the vulnerable groups in Lebanon (in particular on the coastline)? Who would you define as vulnerable within the context?

Are displaced people deemed vulnerable? If so how? What kind of protection is there for them? What is the demographic of displaced people (male/female; youth/elderly etc)

Where are the main clusters of displaced people (are any along the coastline) in Lebanon? What are the main issues facing displaced people?

Is there any kind of social protection for displaced people?

Is there any kind of movement of displaced people/ migratory route across Lebanon and on to European destinations from coastal locations (a UNHCR (2018) report states that there is to a small degree? (this is sensitive)

What issues face other vulnerable groups?

What social protection is there for vulnerable people?

Are there any action plans and national strategies for the protection of those deemed vulnerable?

#### Gender

According to Lebanese law and the Lebanese constitution, men and women enjoy equal rights in social and economic life. Notwithstanding some progress, according to literature women remain underrepresented in public, political life and face obstacles in the labour market — what issues do you feel face women in Lebanese society (girls/adults)

Are there any kind of particular gender issues in Lebanon? If so how are they being addressed? (probe carefully about Gender based violence etc.)

#### Youth

What are the main issues facing youth in Lebanon? How are they being addressed? Which segment of youth are deemed potentially vulnerable?

#### Poverty

Poverty in Lebanon exhibits considerable geographic and social variation, reflecting the unevenness of economic growth across the country over time. Where are the geographical locations with the highest poverty? Are there any reasons for this? What social programmes are in places to address poverty?

#### Potential Impacts

Do you feel that the exploration project (3 months) will have any impact?

Do you have any concerns?

Which other stakeholders might be A) potentially affected by or B) interested in the project activities?

#### Ministry of the Displaced

#### General

National level data on displaced people; main issues facing this category of the population; geographical areas with high density of displaced people; Government initiatives

What are the main issues facing displaced people in Lebanon?

Is there any kind of social protection for displaced people?

What is the demographic of displaced people (male/female; youth/elderly etc)

Where are the main clusters of displaced people (are any along the coastline) in Lebanon? Is there any kind of movement of displaced people/ migratory route across Lebanon and on to

European destinations from coastal locations (a UNHCR (2018) report states that there is to a small degree? (this is sensitive)

Are there any action plans and national strategies for the protection of displaced people?

#### Potential risks for the project

It is recognised that sometimes vulnerable categories of people are engaged in work in supply chains and owing to their status they can be exploited. Would this be a risk for any service provider in the supply chain to the project e.g. food, construction etc?

#### Potential Impacts

Do you feel that the exploration project (3 months) will have any potential impact? Which other stakeholders might be A) potentially affected by or B) interested in the project activities?

## The Presidency of the council of ministers (A dedicated team working on the Syrian crisis working within this office) Same questions as above

#### General

National level data on displaced people; main issues facing this category of the population; geographical areas with high density of displaced people; Government initiatives

What are the main issues facing displaced people in Lebanon?

Is there any kind of social protection for displaced people?

What is the demographic of displaced people (male/female; youth/elderly etc)

Where are the main clusters of displaced people (are any along the coastline) in Lebanon? Is there any kind of movement of displaced people/ migratory route across Lebanon and on to European destinations from coastal locations (a UNHCR (2018) report states that there is to a small degree? (this is sensitive)

Are there any action plans and national strategies for the protection of displaced people?

#### Potential risks for the project

It is recognised that sometimes vulnerable categories of people are engaged in work in supply chains and owing to their status they can be exploited. Would this be a risk for any service provider in the supply chain to the project e.g. food, construction etc?

#### **Potential Impacts**

Do you feel that the exploration project (3 months) will have any impact?

Do you have any concerns?

Which other stakeholders might be A) potentially affected by or B) interested in the project activities?

#### **Ministry of Tourism**

We have undertaken baseline data collection at local level with tourist service sector industry e.g. hotels, restaurants, resorts etc. And we have detailed a desk study and understand that Lebanon is a popular tourist destination, and this is increasing.

Does the ministry have any plans for the Tourism sector? (Are they targeting particular aspects of tourism/nationalities etc)

Do you have any recent statistical data on numbers visiting/nationalities/ revenues?

Are there any Government initiatives to boost the Tourist sector?

Are there are priority geographical areas (probe coastal areas) that will/are being developed? And long-term plans?

What are the main hindrances that the tourist sector faces? Are there any plans to address these? What hindrances in the past has the sector faced?

How will the perceptions of the development of an oil and gas sector in Lebanon influence

(affect) the tourist sector?
How could this be overcome?
What potential impacts could the exploration project pose? How could these be overcome?

#### **Central Administration Statistics CAS**

We are interested in getting data and statistics relevant to the socio economic and cultural heritage baseline study. It is understood that a census has not taken place but we would like to talk to you to you to try and get more information or be directed to sources of information. In particular we are looking at the socio economic detail of the coastal Governorates and Municipalities (meso and micro level). The indicators in our study are: demographics; education and skills: economy and livelihoods (particularly fisheries, tourism and agriculture); land and property; infrastructure (particularly waste); public safety, security and welfare; cultural heritage. Gaps in our study are that there is a lack of data at Governorate/Municipality level such as:

- demographic data
- information relating to infrastructure (e.g., telecoms, electricity, waste)
- education (e.g., male to female ratio, education level)
- information on small and medium enterprises (SMEs) specific to each governorate
- detailed information on public safety (e.g., childcare and pension, access to justice, social security and insurance, and crime rates)
- unemployment levels
- health data
- Land management and land holdings

#### We seek:

Local level (Governorate and municipality) demographic data for coastal Governates

- demographic data
- Coastal land use/cover data (data we have is from 1998)
- Governorate/Local level health indicators
- Data or studies relating to natural wealth especially fisheries sector and (coastal) agriculture sector
- Local level Employment/unemployment
- SMEs
- fisheries

## **MoPWT Ministry of Public Works and Transport Directorate General of Land and Maritime Transport**

As the Ministry provides oversight to maritime transport are there any important maritime routes that this study should detail, understanding that there are shipping lanes in to Beirut port? Are routes regularly used/seasonal/times of particular importance that should be detailed? What types of vessel?

#### Fishing vessels

Seaworthiness and sailing licensing for fishing vessels is under the jurisdiction of the Ministry of Public Works & Transportation, it is understood that the Ministry is in the process of designing and implementing a new computerized vessel registry. Is this imminent?

Are there any recent statistics on the size of the fleets? Are there any trends?

#### Registering of Fishermen/folk

It is understood that the Ministry of public works & Transportation issues fishermen licenses/passports (based upon the recommendation of a fishing cooperative). No computerized registry for those fishermen exists, to date. However, Ministry of Public Works & Transportation is in the process of issuing new version of fishermen passports aimed at decreasing possibility of forgery and misuse. Has this been implemented?

Do you have up-to-date figures on numbers of registered fishermen? (can we have statistics)? Are there any trends? Have all fishermen on the coastline registered? How is this monitored? Have there been issues implementing these new systems?

#### Potential Impacts

Are there aspects of the exploration project (3 months) that you may think will have any potential Impact?

Which other stakeholders might be:

- A) potentially affected by or
- B) interested in the project activities.

#### Port Authorities - Port of Beirut

- Port of Beirut ownership status (public or private) and type of land use (industrial, residential, mixed etc). If pure industrial land use, then what is buffer zone between port buildings and residential houses?
- It is assumed that the jurisdiction of the Port of Beirut extends to a distance out from the port; is the Ministry of Transport responsible for vessel routes beyond that point? Does the port issue any local notices to mariners?
- What is the general security situation around the port? Have there been incidents of thefts?
- What are Port security arrangements?
  - o Is the port fenced?
  - Is there buffer zone between port boundaries and any residential areas around it. If yes, what is the distance requirement between industrial and residential building?
  - Are there 24/7 security guards? Are they aware of Voluntary Principles on Security and Human Rights? (are security guards armed?)
  - o CCTV/surveillance cameras etc?
  - o Is inland access to the port through the main gates/entrance?
  - o Is there registered access control point/gate?
  - o What is the emergency response procedure?
- How do sea users communicate with the Port in case of problems at sea? What's the communication system used?
- Project will need to communicate temporary restrictions around offshore installations (drillship) – 500 m safety zone, so what's the procedure and what is the role of Port authorities in this process? Who can advise on alternative transport corridors for other sea users to avoid drilling location?
- What is the busiest time of the year for the Port? Are there seasonality changes and when is the less busy time?
- Communities adjacent (what are their main activities?) and their exact distances from the Port. Presence of any residential houses inside or immediately outside Port's boundaries? Any complaints from neighbouring communities so far?
- Are there any leisure or tourism focused businesses inside the port area or immediately adjacent to the port? (e.g., yacht club) (may be specifically ask if two proposed areas for Project logistics base have any noise/traffic/light sensitive business neighbours?)
- Are there any aquaculture or bathing waters in immediate vicinity to the Port (any public/private beaches, yacht clubs or fishing/landing areas)?
- Is there one or several land accesses to the Port?
- What is the existing volume of traffic at the Port? Are there particularly busy periods? How is traffic managed at the Port (designated routes for example)?
- How is waste managed at the Port?

#### **Ministry of Justice**

#### Responsible for the public grievance mechanism; play a role as environmental prosecutor. **Facilitator:**

We have conducted local level baseline fieldwork on social aspects. We recognise that the Ministry is an important stakeholder and would like to ask some questions.

#### General

- 1. What are the roles and functions of the Ministry of Justice?
- 2. What role does the Ministry play in regard to oil and gas in the country?
- 3. Does the Ministry play any specific role in the enforcement of regulation of the oil and gas sector?
- 4. How does the Ministry work together with other ministries and stakeholders relevant to the oil and gas sector?
- 5. How does the implementation and monitoring of the public grievance mechanism occur? Roles and responsibilities? Which timeframes are applicable? What reporting mechanisms are in place to provide information on the number and nature of grievances received, managed and closed out? Do pending cases have an impact on the progress of licensing activities?
- 6. How does the ministry resolve environmental cases? Does the ministry provide opportunities to resolve environmental cases through arbitration?
- 7. Does the Ministry of Justice have a public grievance mechanism in force, and if yes, what are the modalities?
- 8. From your perspective as the Ministry of Justice, what challenges does the sector face in general?
- 9. What challenges and risks are exploration activities exposed to from your perspective?

#### Legislation

1. Are there any precedents that we should be aware of?

#### **Potential Impacts**

- 1. Do you feel that the exploration project (3 months) will have any potential impacts? Do you have any concerns?
- 2. Knowing that exploration activities will be taking place offshore and that project support vessels will transit between Block 4 (20km from Beirut Port - visible from shoreline) and the Port of Beirut, with onshore logistics base located inside the Port of Beirut, do they see any potential impacts or risks to security at sea or in the area around the port? If so, what impacts/risks and what do they think the Project needs to do about it?
- 3. Which other stakeholders might be A) potentially affected by or B) interested in the project activities?

#### **Lebanese Atomic Energy Commission (LAEC)**

LAEC is one of the centres under CNRS, the national agency mandated to establish the radioprotection infrastructure of all radioactive sources emitting radiation in Lebanon and to carry out surveys on possible radioactive pollution.

- General
  - 10. What are the roles and functions of the LAEC? How is the LAEC involved in permitting and/or monitoring?
  - 11. Does the LAEC play any specific role in the regulation of the oil and gas sector?
  - 12. How does the LAEC typically treat radioactive waste? In Lebanon or abroad? If abroad, where?
  - 13. There will be a need to transport a radioactive (ionising) source to the drillship and use it during logging activities. What are the procedural requirements for notifying the ministry about movements, storage and use of this source, or otherwise communicating with the ministry?

14. What guidelines do you use for transport, storage and disposal of radioactive material? Lebanese guidelines or international?

#### Potential Impacts

- 4. Do you feel that the exploration project (3 months) will have any potential impacts? Do you have any concerns?
- 1. Which other stakeholders might be A) potentially affected by or B) interested in the project activities?

#### **Mitigation**

1. Do you have any recommendations and/or requirements for specific mitigation measures for radioactive transport, use and disposal?

### **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 5.2 Field Plan

80754









[This page has intentionally been left blank.]

#### KIIs Tentative Field Plan - North who (data Overnight No **Category of Activities** collector 1 No of location Day Cluster Location Stakeholder of stakeholder (KII, FGD) data people of data Cars collector 2 collector Municipality Local Interviewer Own 4 Okaibeh ΚII 1 1 of Okaibeh **Authorities** Home 6 Municipality Local Interviewer Own 4 Safra ΚII 1 1 of Safra **Authorities** Home 6 Municipality Interviewer Local Own 2 Batroun KII 1 1 Day **Authorities** of Batroun Home 1 Municipality Local Interviewer Own 2 Chekka ΚII 1 1 of Chekka **Authorities** Home 1 Municipality Local Interviewer Own of Al Mina -1 ΚII Tripoli 1 1 **Authorities** Home 1 Tripoli Municipality Local Interviewer Own 3 Jbeil ΚII 1 1 of Jbeil **Authorities** Home 6 Municipality Local Interviewer Own Day 3 Aamchit ΚII 1 1 of Aamchit **Authorities** Home 6 2 Municipality Αl Local Interviewer Own 1 of Bebnine-ΚII 1 1 Aabdeh **Authorities** 1 Home Al Abdeh Municipality Local Interviewer Own 5 Dbayeh ΚII 1 1 of Dbayeh **Authorities** Home 6 Day Fidar 3 Municipality Local Interviewer Own ΚII 1 1 of Fidar **Authorities** 6 Home

|          | 4 | Jounieh | Makhluf Sur<br>Mer,<br>Jounieh                            | Restaurant  | KII | Interviewer<br>2 | 1 | 1 | Own<br>Home |
|----------|---|---------|---|---|-----|------------------|---|---|-------------|
|          | 5 | Dbayeh  | Xtreme Dive<br>Center -<br>XDC -<br>Dbayeh                | Commercial<br>Businesses<br>(Traders &<br>Services) | KII | Interviewer<br>2 | 1 | 1 | Own<br>Home |
|          | 2 | Anfeh   | Informal<br>Businesses(s<br>alt miners -<br>Anfeh)        | Commercial<br>Businesses<br>(Traders &<br>Services) | KII | Interviewer<br>1 | 1 | 1 | Own<br>Home |
|          | 2 | Chekka  | Informal<br>Businesses<br>(sea shell<br>collectors)       | Commercial<br>Businesses<br>(Traders &<br>Services) | KII | Interviewer<br>1 | 1 | 1 | Own<br>Home |
|          | 5 | Dbayeh  | Women in<br>Front   | NGOs  | KII | Interviewer<br>2 | 1 | 1 | Own<br>Home |
| Day      | 2 | Batroun | Lebanese<br>Association<br>for Safety<br>and<br>Emergency | CSOs &<br>CBOs                                      | KII | Interviewer<br>6 | 1 | 1 | Own<br>Home |
| 4        | 2 | Anfeh   | Naim Awad<br>Salt, Anfeh                                  | Industries  | KII | Interviewer<br>1 | 1 | 1 | Own<br>Home |
|          | 2 | Chekka  | Florida<br>Beach Hotel<br>And Resort                      | Beach<br>Resorts                                    | KII | Interviewer<br>1 | 1 | 1 | Own<br>Home |
| Day<br>5 | 2 | Anfeh   | Municipality<br>of Anfeh                                  | Local<br>Authorities                                | KII | Interviewer<br>1 | 1 | 1 | Own<br>Home |

|          | 5 | Dbayeh         | Yacht and<br>Boat<br>Services                              | Commercial<br>Businesses<br>(Traders &<br>Services) | KII | Interviewer<br>2 | 1 | 1 | Own<br>Home |
|----------|---|----------------|--|---|-----|------------------|---|---|-------------|
|          | 2 | Batroun        | San<br>Stephano,<br>Batroun                                | Beach<br>Resorts                                    | KII | Interviewer<br>1 | 1 | 1 | Own<br>Home |
|          | 3 | Aamchit        | Chez Zakhia  | Restaurant  | KII | Interviewer<br>2 | 1 | 1 | Own<br>Home |
|          | 2 | Kfaraabi<br>da | Fishermen<br>Coop  | Commercial<br>Businesses<br>(Traders &<br>Services) | КІІ | Interviewer<br>1 | 1 | 1 | Own<br>Home |
| Day<br>6 | 2 | Batroun        | Fishermen<br>Coop  | Commercial<br>Businesses<br>(Traders &<br>Services) | КІІ | Interviewer<br>1 | 1 | 1 | Own<br>Home |
|          | 3 | Aamchit        | Green<br>Square  | NGOs  | KII | Interviewer<br>2 | 1 | 1 | Own<br>Home |
|          | 3 | Jbeil          | UNESCO<br>World<br>Heritage<br>site - Byblos<br>(Jbeil)    | UN agencies   | KII | Interviewer<br>6 | 1 | 1 | Own<br>Home |
| Day<br>7 | 1 | Tripoli        | Developme<br>nt For<br>People And<br>Nature<br>Association | NGOs  | КІІ | Interviewer<br>1 | 1 | 1 | Own<br>Home |

|  | 5 | Dbayeh | Informal<br>Businesses<br>(sea shell<br>collectors) | Commercial<br>Businesses<br>(Traders &<br>Services) | КІІ | Interviewer<br>1 | 1 | 1 | Own<br>Home |
|--|---|--------|---|---|-----|------------------|---|---|-------------|
|--|---|--------|---|---|-----|------------------|---|---|-------------|

### **FGDs Field Plan - North**

| Date  | Cluster | Category of<br>Affected<br>Groups        | Activities<br>(KII, FGD | who (data<br>collector 1 data<br>collector 2 | No of<br>people | No of<br>Cars | Time<br>allocation<br>(number<br>of days) | Overnight<br>location |
|-------|---------|--|-------------------------|--|-----------------|---------------|---|-----------------------|
|       | 2       | Fishermen                                | FGD                     | Moderator 1 &<br>Assistant 1                 |                 |               |   |                       |
|       | 2       | Fishing<br>Household<br>(Females)        | FGD                     | Moderator 2 &<br>Assistant 2                 |                 | 2             | 1   | Own<br>Home           |
| Day 1 | 4       | Fishermen                                | FGD                     | Moderator 1 &<br>Assistant 1                 | 4               |               |   |                       |
|       | 4       | Fishing<br>Household<br>(Females)        | FGD                     | Moderator 2 &<br>Assistant 2                 |                 |               |   |                       |
|       | 1       | Fishermen                                | FGD                     | Moderator 1 &<br>Assistant 1                 |                 |               |   |                       |
|       | 2       | Fishermen                                | FGD                     | Moderator 1 &<br>Assistant 1                 |                 |               |   |                       |
| Day 2 | 2       | Unemployed<br>Youth<br>(Female)<br>18-25 | FGD                     | Moderator 2 &<br>Assistant 2                 | 4               | 2             | 1   | Own<br>Home           |
|       | 3       | Anglers                                  | FGD                     | Moderator 2 &<br>Assistant 2                 |                 |               |   |                       |

|       | 3 | Fishermen           | FGD | Moderator 2 &<br>Assistant 2 |   |   |   |             |
|-------|---|---------------------|-----|------------------------------|---|---|---|-------------|
|       | 3 | Women               | FGD | Moderator 2 &<br>Assistant 2 |   |   |   |             |
| Day 3 | 4 | Anglers             | FGD | Moderator 1 &<br>Assistant 1 | 4 | 2 | 1 | Own<br>Home |
|       | 4 | Farmers<br>Lebanese | FGD | Moderator 1 &<br>Assistant 1 |   |   |   |             |
| Day 4 | 5 | Fishermen           | FGD | Moderator 1 &<br>Assistant 1 | 4 | 2 | 1 | Own<br>Home |
| Day 4 | 5 | Anglers             | FGD | Moderator 1<br>& Assistant 1 |   |   |   |             |

|        |         |                                     | FGD                     | s Field Plan -                               | North           |                  |   |                       |
|--------|---------|-------------------------------------|-------------------------|--|-----------------|------------------|---|-----------------------|
| Date   | Cluster | Category of<br>Affected<br>Groups   | Activities<br>(KII, FGD | who (data<br>collector 1 data<br>collector 2 | No of<br>people | No<br>of<br>Cars | Time<br>allocation<br>(number of<br>days) | Overnight<br>location |
|        | 6       | Fishermen                           | FGD                     | Moderator 1 &<br>Assistant 1                 |                 |                  |   |                       |
|        | 6       | Fishermen                           | FGD                     | Moderator 1 &<br>Assistant 1                 |                 |                  |   |                       |
| Day 4  | 6       | Anglers                             | FGD                     | Moderator 2 &<br>Assistant 2                 | 4               | 2                | 1   | Own Home              |
|        | 6       | Fishing<br>Household<br>(Females)   | FGD                     | Moderator 1 &<br>Assistant 1                 |                 |                  |   |                       |
|        | 8       | Anglers                             | FGD                     | Moderator 2 &<br>Assistant 2                 |                 |                  |   |                       |
| Davi 5 | 8       | Fishermen                           | FGD                     | Moderator 1 &<br>Assistant 1                 |                 | 2                | 1   | 0.000 11.000          |
| Day 5  | 8       | Fishermen                           | FGD                     | Moderator 1 &<br>Assistant 1                 | 4               |                  |   | Own Home              |
|        | 8       | Farmers<br>Lebanese                 | FGD                     | Moderator 2 &<br>Assistant 2                 |                 |                  |   |                       |
|        | 7       | Fishermen                           | FGD                     | Moderator 2 &<br>Assistant 2                 |                 |                  |   |                       |
| Day 6  | 7       | Unemployed<br>Youth (Male)<br>18-25 | FGD                     | Moderator 2 &<br>Assistant 2                 | 4               | 2                | 1   | Own Home              |

#### Considerations for Key Informant Interviews and Focus Groups

Conducting interviews and facilitating focus groups can be tremendously rewarding experiences. As researchers, we are lucky to be able to spend time with people and listen to their stories.

Conducting effective interviews and focus groups can be also difficult and the task should not be taken lightly. The job of the researcher is to obtain the information needed for evaluation in an informal and conversational manner. The trick to effective interviews and focus groups is to be able to put participants at ease. If the participant feels comfortable, there is a better chance of obtaining rich information.

#### Tips and Tricks

- · Before starting an interview or focus group, it is important to consider the following points:
  - The quality of data will be directly dependent on your understanding of the data collection protocols and strategy
  - The participant's time is valuable, make the best use of it
  - Help preserve the research tool by treading lightly, which means only ask what is needed of the
    participant, be highly respectful, and make sure the participant is having a positive experience
    when participating in your study
  - Get focused before you go: Turn off your phone, do not answer any email and spend a minute focusing on why this interview is important
- Aside from having a high-quality data collection protocol, the next most important thing is the manner of the researcher. Consider the following tips:
  - Build Rapport: The researcher needs to create a personal connection with research participants so they are comfortable during data collection
  - Remain Neutral: A research setting is not the time to debate issues if the participant says things that will shock, anger, disappoint or annoy you. Demonstrate some emotions to sad stories, be empathetic but remain neutral
  - Listen Intently: Active listening is a difficult task. Take notes during the interview, mentally summarize the stories the participant is telling you, and look directly at the participant
- It is very important that the interview or focus group end on time, or as close as possible, even if the
  researcher doesn't get to all the questions he/she wanted to ask
- It is also very important to capture as much information as possible during the interview or focus group.
   Therefore, try to record the interview only when participants give you permission to it, take notes, and take time after interview or focus group to expand on your notes and write down thoughts about the data collection.

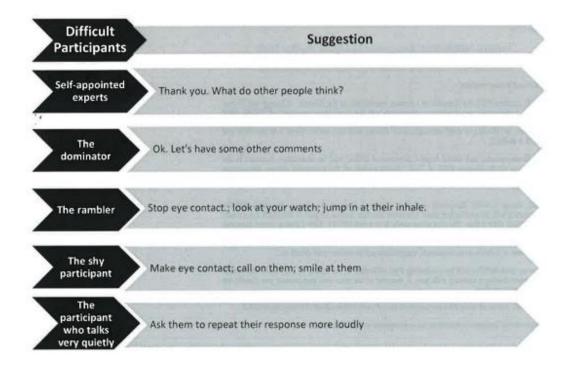
#### Techniques specific to Stakeholder Engagement

Stakeholder Engagement is a qualitative research method which lets the respondents express their thoughts on the research matter at hand freely. The stakeholder engagement process can be sometimes difficult to manage, especially when you leave the respondent with an opportunity for questions and answers. Here are some tips to help managing this process:

| Process     | Intention   |
|-------------|---|
|             | - Make project-related information and data available to stakeholder  |
| mmunication | <ul> <li>Share Information (Videos, Background Infromation Documents, Presentation<br/>Brochures, Flyers, Posters)</li> </ul>   |
|             | - Make targeted audience knowledgeable and sensitive to the topic   |
|             | - Encourage the stakeholder to relate to the issue and ask for clarifications   |
| 1           | - Listen attentively  |
| nsultation  | - Gather comments, perception, information and experience of stakeholder  |
|             | No obligation to take stekholder's views into consideration in the final outcomes   |
|             | Answer the stakeholder questions relying on the background information (predefined lists of FAQs is recommended)  |
| rticipation | Offer a follow-up option and ask for best communication means (if option is available)  |
| ,000        |   |
|             | - Promote collaboration between stakeholders and project implementing partner   |
| 7           | <ul> <li>Promote collaboration between stakeholders and project implementing partner</li> <li>Ask stakeholders for potential impacts and suggestions</li> </ul>   |
| rtnerships  | <ul> <li>Promote collaboration between stakeholders and project implementing partner</li> <li>Ask stakeholders for potential impacts and suggestions</li> <li>Provide opportunities to take part in the policy/project process</li> </ul> |

#### **Techniques specific to Focus Group Facilitation**

Focus groups can be sometimes difficult to moderate. During a focus group, the moderator is responsible for ensuring that the session stays on track, and that the perspectives of all participants are heard. The latter is especially difficult as there will inevitably be some participants that try to dominate the discussion, and some that are shy and quiet. Here are some tips to dealing with difficult participants:







[This page has intentionally been left blank.]

### **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 5.3 Discussion Guides

80754









[This page has intentionally been left blank.]

## TOTAL E&P Liban Offshore Drilling, Lebanon FOCUS GROUP DISCUSSION GUIDE FOR SMALL MARGINAL FARMERS

| Name of village:  |   | Date of the discussion: |                             |
|---|---|-------------------------|-----------------------------|
| Name(s) of attendees :  |   |                         |                             |
| Notes   | Please introduce the oil drilling activi<br>opportunity for questions and answe |                         | nd give the participants an |
| THEME 1   | - STAKEHOLDER ENGAGEMENT A  | ND IMPACT ASSESSMENT    |                             |
| Q1. Please introduce the oil drilling activities using the BIDs and posters. Once completed give the participants an opportunity for questions and you provide an answer to their questions as far as possible. If you cannot answer then please take the stakeholders contact details and tell them you will get the answer and get back in contact as soon as possible. |   |                         |                             |
| Q2. Now, do you have questions?   |   |                         |                             |
|   | THEME 2: SOCIO-ECONOMIC   | OVERVIEW                |                             |
|   | A. DEMOGRAPH  | ICS                     |                             |
| A.1.1. What is your name?   |   |                         |                             |
| A.1.2.What is your age?   |   |                         |                             |
| A2.1. Are you married?  |   |                         |                             |
| A2.2. If yes, how many kids do you have?  |   |                         |                             |
| A3.1. Are you from this village?  |   |                         |                             |
| A3.2. How long have you been residing in this village?  |   |                         |                             |
| A4. How many people live in the village?  |   |                         |                             |
| A5. What is your profession?  |   |                         |                             |
|   | B. FARMING ACTIVIT  | TES                     |                             |

| <b>B1.</b> Are you/ or is anyone in your household currently involved in coastal agricultural activities?                             |  |
|---|--|
| B1.a. How big is the agricultural area you farm/ work in?   |  |
| B1.b. What type of farming do you exactly do?   |  |
| (Note to moderator: please probe into details whether crop farming, what crops, market gardening, animal husbandry and which animals) |  |
| <b>B1.c.</b> What seasonal variations are there?  |  |
| B1.d.1. Do you use irrigation?  |  |
| <b>B1.d.2.</b> If yes, what types, and where does the water come from?  |  |
| <b>B1.e.</b> How far is your land from the shore?   |  |
| <b>B1.f.</b> Does anyone help you with farming?   |  |
| (Note to moderator: please probe into family members, members of community, refugees)   |  |
| <b>B1.f.i.1</b> If yes, what is their role?   |  |

| <b>B1.f.i.2.</b> How do they exactly help you?   |  |
|--|--|
| <b>B1.f.ii.1.</b> Are there any similar examples in community?   |  |
| <b>B1.f.ii.1.</b> What are the roles of people engaged in fishing in your community?                     |  |
| <b>B1.g.</b> Approximately, how many farmers are there in this village?                                  |  |
| B1.h. Are women involved in the farming activities and how are women involved in the farming activities? |  |
| B2. What do you do with the agricultural products?   |  |
| B2.a. Are the goods for sale/used for own consumption/ for leisure?  If for sale, please describe how    |  |
| B2.b. Are there markets available for farmers to sell their products in this village?                    |  |

| B2.c.1. Do you advertise your products?  |  |
|--|--|
| B2.c.2. If yes, who is engaged in this process and how?  | -  |
| B2.d.1. Do you/ or does any household member earn any income from farming?                         |  |
| B2.d.2. If yes, what is its share from the total household income?                                 | -  |
| B2.d.3. And do you have any alternative livelihood activities?                                     |  |
| B3.1. From your experience, what problems does farming in this village face?                       |  |
| B3.2. And what changes have you noticed over the years?  |  |
| B4. What are the factors that positively and negatively influence farming activities in your area? |  |
| C. S   | SOCTO-ECONOMIC INDICATORS AT THE LOCAL LEVEL |

| C1. How would you describe the current coastal resource conditions in your community?  |   |
|--|---|
| C2.1. What are the water sources (drinking/irrigation) in your area?   |   |
| C2.2. Are they considered clean?   |   |
| C3. What are the top 3 major threats to the health of coastal resources in your community?   |   |
| C4. Who do you identify as vulnerable in your community?   |   |
| C5. In your opinion, are there any marine activities available in this village?  |   |
| (Note to moderator: Please probe into fishing, boat repairing, net making, collecting seashells, sand extraction, sea worm collection salt extraction, rubbish scavengersetc.) |   |
| C5.a. If yes:<br>Who performs those activities?  |   |
| (Note to moderator: Please probe into gender: female vs. male, age groups: youth vs. adults vs. elderly, nationality groups: Lebanese vs. refugees)                            |   |
| C5.b. If yes:<br>How are women involved in such<br>activities?   | - |

| C5.c. If yes: Which season in a year are these activities performed?   |            |     |          |
|--|------------|-----|----------|
| C5.d.1. If yes: Do they earn income from those activities?   | -          |     |          |
| C5.d.2. If yes:<br>And do they have alternative<br>livelihoods?  | -          |     |          |
| C6.a. What other types of economic activities are available in this village?  (Note to moderator: Please probe into landbased livelihoods like businesses, markets, artisans etc.)   |            |     |          |
| C6.b. What about those specifically located on the coastline?  (Note to moderator: please probe into beach resorts, hotels, marine tourism by tour operators, diving/surfing schools, retail/rental services of fishing supplies or sea equipmentetc.) |            |     |          |
| C6.c. Can you give estimate shares of each of those economic activities, at the local level?   |            |     |          |
| C7.1. Do you have any touristic site in this village   | ☐ Yes ☐ No |     |          |
|  |            | Y/N | Location |

| C8. Do you have any of the following in your village? If yes, please describe and indicate the location | a. Nature reserves              |  |
|---|---------------------------------|--|
|   | b. Temples, palaces,<br>castles |  |
|   | c. Ottoman structures           |  |
|   | d. Museums                      |  |
|   | e. Religious heritage           |  |
|   | f. World Heritage               |  |

| C9.1. Do you have adequate water supplies in your village?   | ☐ Yes ☐ No |
|--|------------|
| C9.2. What about electricity and waste management services?  (Note to moderator: Please probe on the |            |
| coastal part of the village as well)   |            |
| C10.1. In general, are the roads in your village in good condition?                                  | ☐ Yes ☐ No |
| C10.2. Are there any public transport services?  |            |
| (Note to moderator: Please probe on the coastal part of the village as well)                         |            |
| C11.a. What are the main illnesses in the community?   |            |
| C11.b. Which healthcare facilities are available in your village?                                    |            |
| C11.c.1. Are they reliable services?   | ☐ Yes ☐ No |
| C11.c.2. If no, why not?   | -          |

| C11.d.1. Do they meet the community healthcare needs?   | ☐ Yes ☐ No |
|---|------------|
| C11.d.2. If no, why not?  |            |
| C12. a.1. What about the educational services?  |            |
| C12. a.2. Do you have schools/<br>training centers in your village?<br>(Note to moderator: please probe into the<br>different levels: primary schools, secondary<br>schools, universities and technical<br>schools) |            |
| C12.b. How do you evaluate the educational levels by age groups (youth, adults and elderly) in your communities?  |            |
| C12.c.1. Do you have any public/ or private center for Marine Sciences?   |            |
| C12.c.2. If yes, in which marine activities are they involved?  |            |
| C13.1. How do you describe the safety and security conditions in your area?   |            |

| C13.2. Which parties play the major role(s) in this regard?  |                                       |  |
|--|---------------------------------------|--|
| THEME 3:   | COMMUNICATION AND FEEDBACK MECHANISMS |  |
| Q1. What are your most important information needs in relation to the upcoming oil exploration activity? |                                       |  |
| Q2. How do you like to receive any future project updates?   |                                       |  |
| Q3. If you have a problem/complaint, who do you go to in the community?                                  |                                       |  |
| ADDITIONAL NOTES   |                                       |  |

| <u> </u> |  |  |
|----------|--|--|
|          |  |  |
|          |  |  |
|          |  |  |
|          |  |  |

## TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON FOCUS GROUPS DISCUSSION GUIDE FOR FISHERMEN / ANGLERS/ FISHING HOUSEHOLDS (WOMEN)

| Name of village:   |   | Date of the discussion: |                             |
|--|---|-------------------------|-----------------------------|
| Name(s) of attendees:  |   |                         |                             |
| Notes  | Please introduce the oil drilling activi<br>opportunity for questions and answe |                         | nd give the participants an |
| THEME 1  | - STAKEHOLDER ENGAGEMENT A  | ND IMPACT ASSESSMENT    |                             |
| Q1. Please introduce the oil drilling activities using the BIDs and posters. Once completed give the participants an opportunity for questions and you provide an answers to their questions as far as possible. If you cannot answer then please take the stakeholders contact details and tell them you will get the answer and get back in contact as soon as possible. |   |                         |                             |
| Q2. Now, do you have questions?  |   |                         |                             |
|  | THEME 2: SOCIO-ECONOMIC   |                         |                             |
|  | B. DEMOGRAPH  | ICS                     |                             |
| A.1.1. What is your name?  |   |                         |                             |
| A.1.2.What is your age?  |   |                         |                             |
| A2.1. Are you married?   |   |                         |                             |
| A2.2. If yes, how many kids do you have?   |   |                         |                             |

| A3.1. Are you from this village?  |                       |
|---|-----------------------|
| A3.2. How long have you been residing in this village?  |                       |
| A4. How many people live in the village?  |                       |
| A5. What is your profession?  |                       |
|   | B. FISHING ACTIVITIES |
| <b>B1.1.</b> Are you/ or is anyone in your household, currently involved in fishing?  |                       |
| B1.2. What types?   |                       |
| (Note to interviewer: please probe into artisanal/traditional, commercial, recreational)  |                       |
| <b>B2.</b> What type of boats/ powerboats are you using for fishing?  |                       |
| (Note to moderator: please probe into size of boat, motor/sail, number of fishermen in each boat)   |                       |
| B3. What are the specific fishing gears employed?   |                       |
| (e.g. hook and line, traps, nets, diving gears, dynamite etc)   |                       |
| B4.1. What types of fish?   |                       |
| <b>B4.2.</b> Where do you go for fishing?   |                       |
| (Note to moderator: please probe into distances in kilometers, near/far from shore (for anglers in specific), also ask if they fish from the shore) |                       |
| B5. When do you usually go for fishing?  (Note to moderator: please probe into hour, time of the day and seasons)                                   |                       |

| <b>B6.</b> How much fish do you catch on an average fishing trip?  |  |
|--|--|
| B7. How do you preserve the fish?  (Note to moderator: ice or smoked, other?)  |  |
| B8. Does anyone help you with fishing?  (Note to moderator: please probe into who are the crew members if any e.g family members, poorer members of community, refugees) |  |
| B8.a. If yes, what is their role? How do they exactly help you?  |  |
| B8.b. How females are involved in fishing? Are there gender differentiated roles?  |  |
| B8.c.1. Are there any similar examples in community?   |  |
| B8.c.2. What are the roles of people engaged in fishing in your community?   |  |
| B9. What type of fish do you catch and what do you do with the fish catch?   |  |

| B9.a. Are these goods for sale/ Used for own consumption/ For leisure? If for sale, please describe how.  (through a cooperative, wholesaler, street vendors, how much per kilo) |            |
|--|------------|
| B9.b.1. How do you advertise your fish?  |            |
| B9.b.2. Who is involved in the marketing and   |            |
| sales process?  (Note to moderator: please probe into the roles of men vs. women in the household)   |            |
| B9.c. Are there markets available for fishermen/ individuals conducting marine activities to sell their fishes/ products/ services?  |            |
| B9.d.1. Do you/ or does any household member earn any income from fishing?   | ☐ Yes ☐ No |
| <b>B9.d.2.</b> If yes, what is its share from the total household income?  |            |
| B9.d.3. Do you have any alternative livelihood activities that you undertake alongside fishing?  |            |
| B10. Approximately, how many fishermen are there in your village (as a livelihood or as a recreational activity please specify)?   |            |

| <b>B11.1.</b> From your experience, what problems at seas are there?   |   |
|--|---|
| B11.2. What changes have you noticed over the years?  (Note to moderator: please probe into safety, equipment, pollution, fish stock (plenty of fish or few fish)etc.)   |   |
| B12. What are the factors that positively and negatively influence fishing activities in your area?  (Note to moderator: please probe into problems faced by fishermen in this village, work conditions and welfare) |   |
|  |   |
| C.S  | OCIO-ECONOMIC INDICATORS AT THE LOCAL LEVEL |
| C1. How would you describe the current coastal resource conditions in your community?  |   |
| C2. What are the top 3 major threats to the health of coastal resources in your community?   |   |
| C3. Who do you identify as vulnerable in your community?   |   |
| C4. Besides fishing, are there any other marine activities available in this village?  |   |
| (Note to moderator: Please probe into boat repairing, net making, collecting seashells, sand extraction, salt extraction, sea worm collection, molluscs or small fish collection, rubbish scavengersetc.)            |   |
| C4.a. Which activities? Who performs those activities and where?   |   |
| (Note to moderator: Please probe into <b>gender</b> : female vs. male, <b>age groups</b> : youth vs. adults vs. elderly, <b>nationality groups</b> : Lebanese vs. refugees)  |   |

| C4.b. How women are involved in such activities?   |  |
|--|--|
| C4.c. Which season in a year are these activities performed?   |  |
| C4.d.1. Do they earn income from those activities?   |  |
| C4.d.2. And do they have alternative livelihoods?  |  |
| C4.e. Do they have any major problems or sensitivities in community?   |  |
| C5.a. What other types of economic activities are available in this village?  (Note to moderator: Please probe into landbased livelihoods like farming, businesses, markets, artisans etc.)  |  |
| C5.b. What about those specifically located on the coastline?  (Note to moderator: please probe into beach resorts, hotels, marine tourism by tour operators, diving/surfing schools, retail/rental services of fishing supplies or sea equipmentetc.) |  |
| C5.c. Can you give estimate shares of each of those economic activities, at the local level?   |  |

| C6.1. Do you have any touristic site in this village?   | ☐ Yes ☐ No |  |  |  |
|---|------------|--|--|--|
| C6.2. If yes, what is it exactly? where is it located and do you have tour operators? Boat trips?       |            |  |  |  |
| C7. Do you have any of the following in your village? If yes, please describe and indicate the location |            |  |  |  |

| C8. Do you have adequate water supplies in your village?  | ☐ Yes ☐ No |  |  |
|---|------------|--|--|
| C9. What about electricity and waste management services?  (Note to moderator: Please probe on the coastal part of the village as well) |            |  |  |
| C10.1. In general, are the roads in your village in good condition?   | ☐ Yes ☐ No |  |  |
| C10.2. Are there any public transport services?   |            |  |  |
| (Note to moderator: Please probe on the coastal part of the village as well)  |            |  |  |
| C11.a.1. What illnesses are most prevalent in your community?   |            |  |  |

| C11.a.2. And does fishing cause any health hazards?   |            |
|---|------------|
| C11.b. Which healthcare facilities are available in your village?  (Note to moderator: Please probe into hospitals, public clinics, mobile clinics, how far they areetc.).                            |            |
| C11.c.1. Are they reliable services?  | ☐ Yes ☐ No |
| C11.c.2. If no, why not?  |            |
| C11.d.1. Do they meet the community healthcare needs?   | ☐ Yes ☐ No |
| C11.d.2. If no, why not and do you think you need more healthcare facilities in the area?   |            |
| C12. a.1. What about the educational services?  |            |
| C12. a.2. Do you have schools/ training centers in your village?  (Note to moderator: please probe into the different levels: primary schools, secondary schools, universities and technical schools) |            |

| C12.b. How do you evaluate the educational levels by age groups (youth, adults and elderly) in your communities? |  |  |  |  |
|--|--|--|--|--|
| C13.1. How do you describe the safety and security conditions in your area?                                      |  |  |  |  |
| C13.2. Which parties play the major role(s) in this regard?  |  |  |  |  |
| C14. Are there any associations or NGOs in your community (if so what do they do?)                               |  |  |  |  |
| C15. What problems exist in the community?   |  |  |  |  |
| THEME 3: COMMUNICATION AND FEEDBACK MECHANISMS   |  |  |  |  |
| Q1. What are your most important information needs in relation to the upcoming oil exploration activity?         |  |  |  |  |
| Q2. How do you like to receive any future project updates?   |  |  |  |  |
| Q3. Are there any stakeholders that you would recommend that we talk with?                                       |  |  |  |  |
| ADDITIONAL NOTES   |  |  |  |  |

## TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON FOCUS GROUP DISCUSSION GUIDE FOR WOMEN

| Name of village:  |  | Date of the discussion: |                             |  |
|---|--|-------------------------|-----------------------------|--|
| Name(s) of attendees :  |  |                         |                             |  |
| Notes   | Please introduce the oil drilling activi<br>opportunity for questions and answer |                         | nd give the participants an |  |
| THEME 1   | - STAKEHOLDER ENGAGEMENT A   | ND IMPACT ASSESSMENT    |                             |  |
| Q1. Please introduce the oil drilling activities using the BIDs and posters. Once completed give the participants an opportunity for questions and you provide an answer to their questions as far as possible. If you cannot answer then please take the stakeholders contact details and tell them you will get the answer and get back in contact as soon as possible. |  |                         |                             |  |
| Q2. Now, do you have questions?   |  |                         |                             |  |
| THEME 2: SOCIO-ECONOMIC OVERVIEW  |  |                         |                             |  |
| A. DEMOGRAPHICS   |  |                         |                             |  |
| A.1.1. What is your name?   |  |                         |                             |  |
| A.1.2. What is your age?  |  |                         |                             |  |
| A1.3. What is your marital status?  |  |                         |                             |  |
| A1.a. If married, how many children do you have?  |  |                         |                             |  |
| A2.1. Are you from this village?  |  |                         |                             |  |
| A2.1. How long have you been residing in this village?  |  |                         |                             |  |

| A3. How big is the village?  |  |
|--|--|
| A4.1. Do you currently work? If yes, where and in which field?   |  |
| A4.2. If no, why not?  |  |
| B.   | SOCIO-ECONOMIC INDICATORS AT THE LOCAL LEVEL |
| B1. What are the sources of income (including agriculture, wage employment, public transfers, remittances, gift-giving, etc.) available in your household? |  |
| B1.a. Which of the sources of income/income-generating activities that you have mentioned are typically performed by men and which by women? Why?          |  |
| B1.b.1. Is credit available to access?   |  |
| B1.b.2. What are the different constraints/challenges that men and women face when accessing these types of credit? Why?                                   |  |
| B1.b.3. Are they accessible equally to men/women?  |  |
| B2.1. In your household, could you describe who carries out which household chores and employment (household work, child care, farming, etc.)?             |  |
| B2.2. Who decides this allocation?   |  |

| B3. Do you make economic decisions in<br>the household (e.g. selling crops,<br>livestock or land, purchasing tools,<br>asking for a loan)?   |                |          |
|--|----------------|----------|
|  | Skill level    | Job Type |
| B4. Which types of economic activities are available in this village?  (note to moderator: please probe into low, medium and high skilled jobs as well as land-based livelihoods vs marine activities) | Low skilled    |          |
|  | Medium skilled |          |
|  | High skilled   |          |

|  | Other (please specify) |  |  |
|--|------------------------|--|--|
| B4.a. Who performs those activities? (note to moderator: please probe into gender: female vs male, age groups: youth vs adults vs elderly, nationality groups: Lebanese vs refugees) |                        |  |  |

| B5. What other services (education, health, agricultural extension or any other rural services) and infrastructures (electricity, roads, water pumps) are available in this community? |  |
|--|--|
| <b>B5.a.</b> Who in your household has access to and uses these services?  |  |
| B6. What are the main risks (economic, climatic, and political) that people in your community are confronted with?   |  |
| B6.a.1. Do they affect all households equally?   |  |
| B6.a.2. Do they affect men/women differently?  |  |
| B6.b. How do households with varying degrees of wealth cope with and manage risks differently?   |  |
| B6.c. Do women/men cope with and manage these risks differently?   |  |
| B7. What social networks, formal and informal, exist in the community?   |  |

| B7.a. Are these mixed or gender-specific?   |                                 |     |          |  |
|---|---------------------------------|-----|----------|--|
| B7.b. What roles do women/men play in their social networks?  |                                 |     |          |  |
| B8. In your opinion, what are the factors that positively and negatively influence women empowerment in your community? |                                 |     |          |  |
| (Note to moderator: please probe into<br>details of the main issues for women in this<br>community)                     |                                 |     |          |  |
| <b>B9.1.</b> Do you have any touristic site in this village?  | ☐ Yes ☐ No                      |     |          |  |
| B9.2. If yes, where is it located and do you have tour operators? Boat trips?   |                                 |     |          |  |
|   |                                 | Y/N | Location |  |
| B10. Do you have any of the following in your village? If yes, please describe and indicate the location                | g. Nature reserves              |     |          |  |
|   | h. Temples, palaces,<br>castels |     |          |  |

|  | i. Ottoman structures |  |  |
|--|-----------------------|--|--|
|  | j. Museums            |  |  |
|  | k. Religious heritage |  |  |
|  | l. World Heritage     |  |  |
| <b>B11.1.</b> Do you have adequate water supplies in your village?   | ☐ Yes ☐ No            |  |  |
| B11.2. What is the quality of water?   |                       |  |  |
| B11.3. What about electricity and waste management services?  (Note to moderator: Please probe on the coastal part of the village as well) |                       |  |  |

| <b>B12.1.</b> In general, are the roads in your village in good condition?   | ☐ Yes ☐ No |
|--|------------|
| B12.2. Are there any public transport services?  (Note to moderator: Please probe on the coastal part of the village as well)  |            |
| <b>B13.a.</b> What illnesses are most prevalent in your community?   |            |
| <b>B13.b.</b> Which healthcare facilities are available in your village?  (Note to moderator: Please probe into hospitals, public clinics, mobile clinics, distancesetc.). |            |
| B13.c.1. Are they reliable services? If no, why not?   | ☐ Yes ☐ No |
| B13.c.2. If no, why not?   |            |
| B13.d.1. Do they meet the community healthcare needs?  |            |
| B13.d.2. If no, why not and do you think you need more healthcare facilities in the area?  |            |

| <b>B14.a.1.</b> What about the educational services?   |                  |
|--|------------------|
| B14.a.2. Do you have schools/ training centers in your village?  (Note to moderator: please probe into the       |                  |
| different levels: primary schools, secondary schools, universities and technical schools)                        |                  |
| B14.b. How do you evaluate the educational levels by age groups (youth, adults and elderly) in your communities? |                  |
| <b>B15.1.</b> How do you describe the safety and security conditions in your area?                               |                  |
| <b>B15.2.</b> Which parties play the major role(s) in this regard?   |                  |
| B16. If you have a problem/complaint, who do you go to in the community?   |                  |
| THEME 3: COMMUNICATION AND FEEDBACK MECHANISMS   |                  |
| Q1. What are your most important information needs in relation to the upcoming oil exploration activity?         |                  |
| Q2. How do you like to receive any future project updates?   |                  |
|  | ADDITIONAL NOTES |

## TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE — STAKEHOLDERS — BUSINESS SECTORS

| Location of Interview: (Village/Caza/Block Number):  |                              | Date of interview: |  |
|--|------------------------------|--------------------|--|
| Name of Interviewee :  |                              |                    |  |
| Interviewee Gender :   |                              |                    |  |
| Interviewee Postion :  |                              |                    |  |
| Name of Interviewer :  |                              |                    |  |
| Notes  |                              |                    |  |
| THEME 1  | – STAKEHOLDER ENGAGEMENT AND | IMPACT ASSESSMENT  |  |
| Q1. Please introduce the oil drilling activities using the BIDs and posters. Once completed give the participants an opportunity for questions and you provide an answers to their questions as far as possible. If you cannot answer then please take the stakeholders contact details and tell them you will get the answer and get back in contact as soon as possible. |                              |                    |  |
| Q2. Now, do you have questions?  |                              |                    |  |
|  | A. INDUSTRIES                |                    |  |
|  | GENERAL INFORMATION          | N                  |  |
| A1.1. Are you from this village?   |                              |                    |  |
| A1.2. How long have you been residing here?  |                              |                    |  |
| A2. What is the population size of the community?  |                              |                    |  |
| A3. Please describe briefly your economic/business activity. What do you exactly do?   |                              |                    |  |

| A4. How long has your business been operating?   |                                      |
|--|--------------------------------------|
| A5. Is it the main source of income in your household?   |                                      |
| A6. How many dependents are there in your household?   |                                      |
| A7. Do you have employees?   | ☐ Yes ☐ No                           |
| A7.1 If yes, how many and please probe into Gender, Nationality, and Age Groups                        |                                      |
| A8. In what roles are women involved?  |                                      |
| A9. How would you evaluate the performance (growth/decline) of your business for the past three years? |                                      |
| A9.a. What factors have influenced this growth/decline?  |                                      |
| A9.b. What were approximately the annual revenues vs. expenses last year (2018)?                       |                                      |
| A10. What are the conditions for business development in your community?                               |                                      |
|  | CLIENTELE AND SOCIO-ECONOMIC ASPECTS |

| A11. Who are your clients?  |  |
|---|--|
| A12. Is your business seasonal? Please describe   |  |
| A13. What other types of businesses are available in this area? Specifically on the shore?                |  |
| A14. How would you describe the current coastal resource conditions in your community?                    |  |
| A15. What are the factors that positively or negatively influence your business?                          |  |
| A16. How much does your business rely on marine resources?  | ☐ a. Extreme ☐ b. Very High ☐ c. High ☐ d. Moderate ☐ b. Low ☐ b. None |
| A17.1. Are you located in a village with cultural heritage?   | ☐ Yes ☐ No   |
| A17.2. Are there any touristic sites or nature reserves in the neighborhood? If yes, please describe them | ☐ Yes ☐ No   |
| A18. How much your business relies on such sites?   | ☐ a. Extreme ☐ b. Very High ☐ c. High ☐ d. Moderate ☐ b. Low ☐ b. None |

| A19.1. Do you have adequate water supplies in this area?                    |  |
|---|--|
| A19.2. What about electricity and waste management services?                |  |
| A19.a. Are you satisfied with the infrastructure in this village?           |  |
| A19.b. How the infrastructure can affect your business?                     |  |
| A20.1. How do you find the condition of local roads?                        |  |
| A20.2. Are there any public transport services?                             |  |
| A21.1. How do you describe the safety and security conditions in this area? |  |
| A21.2. Which parties play the major role(s) in this regard?                 |  |

| A22.1. What illnesses are most prevalent in your community and how do you describe the healthcare facilities in this area?   |  |
|--|--|
| A22.2. Do they satisfy the community needs?  |  |
| A23. What are the forms of communication used by people in your community?   | a. Telephone   b. Internet   c. Mail Services   d. Other |
|  | ENVIRONMENT AND NATURAL RESOURCES                        |
| A24.1. Are there any natural resources (both offshore and onshore) available in the neighborhood?  | ☐ Yes ☐ No   |
| A24.2. If yes, who are the parties managing those natural resources? And who are the ones who make use of them?  |  |
| A25.a. Please describe briefly the climate in this area?   |  |
| A25.b. Please describe briefly the air quality in this area?   |  |
| A25.c. Please describe briefly the water quality in this area?   |  |
| A25.d. Please describe briefly the Offshore Ecology and Geology in this area?  |  |
| A25.e. Please describe briefly the shore side Ecology and Geology in this area?  |  |
| A25.f. Please describe briefly the Natural Resources in this area?   |  |
| A26.1. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment in this area? | ☐ Yes ☐ No   |

| A26.2. If yes, how is your business impacted? Please describe.                |  |
|---|--|
| B. COMME  | RCIAL BUSINESSES (TRADERS & SERVICES – FORMAL /INFORMAL) |
|   | GENERAL INFORMATION                                      |
| <b>B1.1.</b> Are you from this village? How long have you been residing here? |  |
| <b>B1.2.</b> How long have you been residing here?                            |  |
| B2. How big is the community/population size?                                 |  |
| B3. Please describe briefly your economic activity. What do you exactly do?   |  |
| B4. Is the business small or medium size?                                     |  |
| B5. How long has your business been operating?                                |  |
| <b>B6.</b> Is it the main source of income in your household?                 |  |
| B7. How many dependents are there in your household?                          |  |
| B8.1. Do you have employees?  | ☐ Yes ☐ No   |

| B8.2. If yes, how many and please probe into Gender, Nationality, and Age Groups.  |                                      |
|--|--------------------------------------|
| B9. In what roles are women involved?  |                                      |
| B10. How would you evaluate the performance (growth/decline) of your business for the past three years?  |                                      |
| B10.a. What factors have influenced this growth/decline?   |                                      |
| B10.b. What were approximately the annual revenues vs. expenditure last year (2018)? (Note to interviewer: please ask for a range of the business turnover in USD) |                                      |
| <b>B11.</b> What are the conditions for business development in your community?  |                                      |
|  | CLIENTELE AND SOCIO-ECONOMIC ASPECTS |
| B12. Who are your clients?   |                                      |
| B13. Is your business seasonal?<br>Please describe   |                                      |
| <b>B14.</b> What other types of businesses are available in this area? Specifically on the shore?  |                                      |

| <b>B15.</b> How would you describe the current coastal resource conditions in your community?                                    |  |
|--|--|
| <b>B16.</b> What are the factors that positively or negatively influence your business?  |  |
| <b>B17.</b> How much does your business relies on marine resources? (Note to interviewer: please ask for the degree of reliance) | □ a. Extreme □ b. Very High □ c. High □ d. Moderate □ b. Low □ b. None |
| <b>B18.1.</b> Are you located in a village with cultural heritage? If so please describe it and provide an approximate location? |  |
| <b>B18.2.</b> Are there any touristic sites or nature reserves in the neighborhood? If yes, please describe them                 |  |
| <b>B19.</b> How much your business relies on such sites? (Note to interviewer: please ask for the degree of reliance)            | □ a. Extreme □ b. Very High □ c. High □ d. Moderate □ b. Low □ b. None |
| <b>B20.1.</b> Do you have adequate water supplies in this area?  |  |
| B20.2. What about electricity and waste management services?   |  |
| B20.a. Are you satisfied with the infrastructure in this village?  |  |
| B20.b. How can the provision of infrastructure affect your business?   |  |

| B21.1. How do you find the condition of local roads?   |  |
|--|--|
| <b>B21.2.</b> Are there any public transport services?   |  |
| <b>B22.1.</b> How do you describe the safety and security conditions in this area?                     |  |
| B22.2. Which parties play the major role(s) in this regard?  |  |
| B23.1. What are the main illnesses in the community?   |  |
| B23.2. How do you describe the healthcare facilities in this area (what are they and where are they?)? |  |
| B23.3. Do they satisfy the community needs?  |  |
| B24. What are the forms of communication used by people in your community?                             | ☐ a. Telephone ☐ b. Internet ☐ c. Mail Services ☐ d. Other |
|  | ENVIRONMENT AND NATURAL RESOURCES                          |
| B25.1. Are there any natural resources (both offshore and onshore) available in the neighborhood?      | ☐ Yes ☐ No   |

| B25.2. If yes, who are the parties managing those natural resources? And who are the ones who make use of them?  |   |  |
|--|---|--|
| <b>B26.a.</b> Please describe briefly the climate in this area?  |   |  |
| B26.b. Please describe briefly the air quality in this area?   |   |  |
| <b>B26.c.</b> Please describe briefly the water quality in this area?  |   |  |
| B26.d. Please describe briefly the Offshore Ecology and Geology in this area?  |   |  |
| B26.e. Please describe briefly the shoreside Ecology and Geology in this area?   |   |  |
| <b>B26.f.</b> Please describe briefly the Natural Resources in this area?  |   |  |
| B27.1. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment in this area? | ☐ Yes ☐ No                                    |  |
| B27.2. If yes, how is your business impacted? Please describe?   |   |  |
|  | c. TOURISM (TRAVEL AGENCIES & TOUR OPERATORS) |  |
| GENERAL INFORMATION  |   |  |

| C1. Please describe briefly your economic activity. What do you exactly do?                                       |                               |                 |            |
|---|-------------------------------|-----------------|------------|
| C2. How big is your business?   | □ a. Small □ b. Medium □ c. L | arge            |            |
| C3. How long has your business been operating?  |                               |                 |            |
| C4. Is it the main source of your household income?   |                               |                 |            |
| C5.1. How would you evaluate the performance (growth/decline) of the business (tourism) for the past three years? |                               |                 |            |
| C5.2. What has affected this?   |                               |                 |            |
| C6. What was your business's turnover last year? (USD)  |                               |                 |            |
| C7. What is your view on the strengths and weaknesses of the tourism sector all over the Lebanese coastline?      |                               |                 |            |
|   | CLIENTELE AND SOCIO-EC        | CONOMIC ASPECTS |            |
|   |                               | High Season     | Low Season |

|   | C8.a. Families                            | %           | %          |
|---|---|-------------|------------|
|   | C8.b. Couples/ Honeymooners               | %           | %          |
|   | C8.c. Singles                             | %           | %          |
| C8. What is the profile of your clients?                | C8.d. Tour groups (including incentives*) | %           | %          |
|   | C8.e. Businessmen/Businesswomen           | %           | %          |
|   | C8.f. other:                              | %           | %          |
|   |   | High Season | Low Season |
|   | C9.a. Lebanon                             | %           | %          |
| C9. What is the profile of your clients by nationality? | C9.b. Arab Countries                      | %           | %          |
|   | C9.c. European                            | %           | %          |
|   | -   |             |            |

|  | C9.e. Asia             | %              | % |
|--|------------------------|----------------|---|
|  | <b>C9.f.</b> Other:    | %              | % |
| C10. Which group of nationals (from which countries) has been visiting Lebanon increasingly over the past three years? |                        |                |   |
| C11. What is the average number (and percentage) of tourists who requested marine or coastal tours from you in 2018?   |                        |                |   |
| C12.1. What is usually the main coastal/ marine destinations requested?  |                        |                |   |
| C12.2. Where are they and why?   |                        |                |   |
| C13. What is usually the seasonality of these requests? (per months)   | ☐ a. Peak : ☐ b.Modera | ite: 🗆 c. Low: |   |
| C14. What is the average number (and percentage) of tourists who requested cultural tours from you in 2018?            |                        |                |   |
| C17.1. How do you describe the<br>Lebanese coastal and marine touristic<br>sites                                       |                        |                |   |
| C17.2. Are your satisfied with the management of those sites?  | ☐ Yes ☐ No             |                |   |

| ENVIRONMENT AND NATURAL RESOURCES |
|-----------------------------------|
|                                   |
|                                   |
|                                   |

| C22.c. Please describe briefly the water quality in this area?   |                           |
|--|---------------------------|
| C22.d. Please describe briefly the Offshore Ecology and Geology in this area?  |                           |
| C22.e. Please describe briefly the shoreside Ecology and Geology in this area?   |                           |
| C22.f. Please describe briefly the Natural Resources in this area?   |                           |
| C23.1. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment on the Lebanese coastline/in this area? | ☐ Yes ☐ No                |
| C23.2. If yes, how the tourism is impacted? Please describe  |                           |
|  | D. BEACH RESORTS          |
|  | DEMOGRAPHICS AND CAPACITY |
| D1. Please describe briefly your economic activity. What do you exactly do?  |                           |
| D2. How long has your business been operating?   |                           |
| D3. Is it the main source of your household income?  |                           |

| D4. How is your establishment is best described?   | ☐ a. Beach Resort ☐ b.Spa: ☐ c. Other, please specify:     |        |  |
|--|--|--------|--|
| D5. What is the total number of:   | ☐ Chalets/ Rooms: ☐ Cabins: ☐ Bungalows: ☐ Other, specify: |        |  |
| D6. Do you have direct and private access to the beach?                                  | ☐ Yes ☐ No   |        |  |
| D7. What is the total number of your employees?  |  |        |  |
| Total  | Females:   | Males: |  |
| Professionals:   | Females:   | Males: |  |
| Skilled Workers:   | Females:   | Males: |  |
| Unskilled Workers  | Females:   | Males: |  |
| D8. Over the last year (2018), what was your resort's average occupancy rate?            |  |        |  |
| Average Annual   |  |        |  |
| High-Season  |  |        |  |
| Low-Season   |  |        |  |
| D9.1. From a financial perspective, how was your business doing for the past five years? |  |        |  |

| D9.2. What has influenced these trends?                           |                        |
|---|------------------------|
|   | Socio-Economic Aspects |
| D10.1. Who are your main guests?                                  |                        |
| D10.1. In your opinion, what makes them attracted to your resort? |                        |
| D11.1. Are you located in a village with cultural heritage?       |                        |
| D11.2. And are there any touristic sites in the neighborhood?     | ☐ Yes ☐ No             |
| D11.3. If yes, please describe                                    |                        |

| D12. Do you offer any specific tourism services? (E.g. tours, expeditions, boat tours)        |            |
|---|------------|
| D13. What type(s) of marine recreational activities you offer to your guests? Please describe |            |
| D14.1. Do you offer any other recreational activities? If yes, please describe                | ☐ Yes ☐ No |
| D14.2. If yes, please describe:   |            |
| D15. Do you have restaurants?   | ☐ Yes ☐ No |
| D15.a. Which types and do they have a seafood menu?   |            |

| D15.b. If yes, from where do you purchase the seafood items?  |                                   |
|---|-----------------------------------|
| D16. Are you reliant on any goods used for your business which are shipped?   |                                   |
| D16.a. Are your resort's purchases of supplies imported through any of the Lebanese ports?  |                                   |
| D17. Do your resort's guests face transportation difficulties in getting to/or leaving the resort? (E.g. traffic, lack of transportation means) |                                   |
| D18. Are you satisfied with the infrastructure (e.g. electricity, water, waste management) and land and marine use in this area?                | ☐ Yes ☐ No                        |
| D18.a. If yes, why? If no, why not?   |                                   |
|   | Environment and Natural Resources |

| D19. Are there any natural resources (both offshore and onshore) available in the neighborhood? | ☐ Yes ☐ No |
|---|------------|
| D19.a. If yes, who are the parties managing those natural resources?                            |            |
| D19.b. If yes, who are the ones who make use of them?   |            |
| D20.a. Please describe briefly the quality of the climate in this area?                         |            |
| D20.b. Please describe briefly the air quality in this area?                                    |            |
| D20.c. Please describe briefly the water quality in this area?                                  |            |

| D21. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment in this area? | □ Yes □ No                          |                                  |
|--|-------------------------------------|----------------------------------|
| D21.a.If yes, how is your business impacted? Please describe   |                                     |                                  |
|  | E. HOTELS                           |                                  |
|  | DEMOGRAPHIC AND CAPACITY            |                                  |
|  |                                     |                                  |
| E1. Please describe briefly your economic activity. What do you exactly do?  |                                     |                                  |
| E2. How long has your business been operating?   |                                     |                                  |
| E3. Is it the main source of your household income?  |                                     |                                  |
| E4. What best describes your establishment?  | a .Hotel b. Motel c. Inn or lodge d | . Spa □e. Other, please specify: |
| E5. What is the total number of rooms in your hotel?   |                                     |                                  |
| E6. What is the total number of your em  | ployees?                            |                                  |
| Total  | Females:                            | Males:                           |
| Professionals  | Females:                            | Males:                           |
| Skilled Workers  | Females:                            | Males:                           |
| Unskilled Workers  | Females:                            | Males:                           |

| E7. Over the last year (2018), what was  | your resort's average occupancy rate? |
|--|---------------------------------------|
| Average Annual   | 9/                                    |
| High-Season  | 9/1                                   |
| Low-Season   | 9/                                    |
| E8. From a financial perspective, how was your business doing for the past five years? What has influenced these trends? |                                       |
|  | Socio-Economic Aspects                |
| E.9.1. Who are your main guests?   |                                       |
| E.9.2. in your opinion, what makes them attracted to your hotel?   |                                       |
| E.10.1. Are you located in a village with cultural heritage?   |                                       |
| E.10.2. What is it exactly and where is it?  |                                       |
| <b>E.10.3.</b> are there any touristic sites in the neighborhood?  | ☐ Yes ☐ No                            |

| E10.4. If yes, please describe   |           |
|--|-----------|
| E11. Do you offer any specific tourism services? (E.g. tours, expeditions)                     |           |
| E12. Does your hotel have direct or easy access to the sea? What about a sea view?             |           |
| E.13.1. Do you offer any recreational activities (including marine activities) to your guests? | □ Yes □No |
| E.13.2. If yes, please describe  |           |
| E.14.1. Do you have restaurants?   |           |
| E.14.2. Which types and do they have a seafood menu?   |           |
| E.14.3. Which types and do they have a seafood menu?   | □ Yes □No |

| E.14.4. If yes, from where do you purchase the seafood items? (Note to interviewer: please ask for details)?                                  |                                   |
|---|-----------------------------------|
| E.15.1. Are you reliant on any goods used for your business which are shipped?  |                                   |
| <b>E.15.2.</b> Are your hotel's purchases of supplies imported through any of the Lebanese ports?   |                                   |
| E16. Do your hotel's guests face transportation difficulties in getting to/or leaving the hotel? (E.g. traffic, lack of transportation means) |                                   |
| E.17.1. Are you satisfied with the infrastructure (e.g. electricity, water, waste management) and land-use in this area?                      | ☐ Yes ☐ No                        |
| E.17.2. If yes, why? If no, why not?  |                                   |
|   | Environment and Natural Resources |
| E.18.1. Are there any natural resources available in the neighbourhood?   | ☐ Yes ☐ No                        |
| E.18.2. If yes, who are the parties managing those natural resources?   |                                   |

| E.18.3. who are the ones who make use of them?  |                          |
|---|--------------------------|
| E19. Please describe briefly the Climate, Air quality and Water quality in this area?   |                          |
| E.20.1. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment in this area? | Yes □No                  |
| E.20.2. If yes, how is your business impacted? Please describe.   |                          |
|   | F. Restaurants           |
|   | Demographic and Capacity |
| F1.1. 1. Are you from this village?   |                          |
| F4 2 Hambara hamana hamana didira   |                          |
| F1.2. How long have you been residing here?   |                          |

| F2.2 Which type of restaurant do you have?   |                              |                      |   |
|--|------------------------------|----------------------|---|
| F2.a.Do you have a seafood menu?   | ☐ Yes ☐No                    |                      |   |
| F2.b. If yes, from where do you purchas  | e the seafood items?         |                      |   |
| F3. How long has your restaurant been during weeks vs. weekends)                                       | operating? (Note to intervie | wer: please probe ii | nto seasonality of the business, and operations |
| F4. Is it the main source of income in yo  | our household?               |                      |   |
| F5. How many dependents are there in \   | your household?              |                      |   |
| F6. Do you have direct access to the beach from your restaurant?                                       |                              |                      |   |
| F7. Do you have a sea view?  |                              | ☐ Yes ☐No            |   |
| F8. What is the total number of your em  | ployees?                     |                      |   |
| Total  | Females:                     |                      | Males:  |
| Professionals  | Females:                     |                      | Males:  |
| Skilled Workers  | Females:                     |                      | Males:  |
| Unskilled Workers  | Females:                     |                      | Males:  |
| F9. How would you evaluate the performance (growth/decline) of your business for the past three years? |                              |                      |   |

| F9.c. What factors have influenced this                                  | growth/decline?  |  |  |
|--|--|--|--|
| F9.d. What were approximately the ann business turnover in USD)          | nual revenues vs. expenses last year (2018)? (Note to interviewer: please ask for a range of the |  |  |
| F10. What are the conditions for business development in your community? |  |  |  |
|  | Socio-Economic Aspects   |  |  |
| F11.1. Who are your main guests?   |  |  |  |
| F11.2. in your opinion, what makes them attracted to your Restaurant?    |  |  |  |
| F12.1. Are you located in a village with cultural heritage?              |  |  |  |
| F.12.2. What is it exactly and approximately where?                      |  |  |  |
| F.12.3. Are there any touristic sites in the neighborhood?               | ☐ Yes ☐ No   |  |  |

| F.12.4. If yes, please describe  |                                   |
|--|-----------------------------------|
| F13. 13. Do your restaurant's guests face transportation difficulties in getting to the restaurant? (E.g. traffic, lack of transportation means) |                                   |
| F14. 14. Are you satisfied with the infrastructure (e.g. electricity, water, waste management) and land and marine use in this area?             | Yes □No                           |
| F.14.c .If yes, why? If no, why not?   |                                   |
|  | Environment and Natural Resources |
| F.15. Are there any natural resources (both offshore and onshore) available in the neighborhood?   | □ Yes □No                         |
| F.15. a. If yes, who are the parties managing those natural resources?   |                                   |
| F.15. b. If yes, who are the ones who make use of them?  |                                   |
| F16.a. Please describe briefly the Climate in this area?   |                                   |

| F16.b. Please describe briefly the Air<br>Quality in this area   |                  |
|--|------------------|
| F16.c. Please describe briefly the Water Quality in this area  |                  |
| F17. 17. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment in this area? | ☐ Yes ☐ No       |
| F.17.a. If yes, how is your business impacted? Please describe   |                  |
|  | ADDITIONAL NOTES |

## TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE - STAKEHOLDERS — MUNICIPALITY OFFICIALS

| Location of Interview: (Village/Caza/Block Number):  | Date of the interview :  |                             |  |
|--|--|-----------------------------|--|
| Name of interviewee:   |  |                             |  |
| Interviewee Gender :   |  |                             |  |
| Interviewee Position :   |  |                             |  |
| Name of Interviewer :  |  |                             |  |
| Notes  | Please introduce the oil drilling activities using the BIDs and posters as opportunity for questions and answers | nd give the participants an |  |
| THEME 1  | - STAKEHOLDER ENGAGEMENT AND IMPACT ASSESSMENT   |                             |  |
| Q1. What do you exactly know about the oil drilling operations which are going to take place in this area?               |  |                             |  |
| Q2. Now, do you have questions?  |  |                             |  |
|  | A. BACKGROUND  |                             |  |
| A1. Please tell me briefly how long have you been head of/working with this municipality, and what is your current role? |  |                             |  |
| B. DEMOGRAP  | PHIC CHARACTERISTICS AND COMMUNITY ST  | <b>TRUCTURE</b>             |  |

| <b>B1.a.</b> Could you tell us about the population in your village:   |            |
|--|------------|
| What is the total number of inhabitants? (Note to interviewer: if possible please ask for distribution: percentages by gender and age groups ( 18, or youth vs. adults vs. elderly)) |            |
| <b>B1.b.</b> Who do you identify as vulnerable in your community?  |            |
| <b>B1.c.1.</b> Is there any cultural diversity?  | ☐ Yes ☐ No |
| B1.c.2. If yes, please describe what is the diversity?  (Note to interviewer: please identify who)   |            |
| B1.d. Are there different religious beliefs in this village?  (Note to interviewer: please ask for percentages if possible)  |            |

| B2.1. Who are the important leaders in the village?   |                                    |
|---|------------------------------------|
| B2.2. What are their roles and how decisions are made?  |                                    |
| (Note to interviewer: please probe into mayors, religious figures, policemen, teachers)   |                                    |
| C.  | SOCIAL SERVICES AND INFRASTRUCTURE |
| C1. How many schools and universities are available in your village ( specify primary/secondary etc)?                                   |                                    |
| C2.1. Are you satisfied with the educational level of the inhabitants of this village?  |                                    |
| C2.2. Who are the least vs. most educated/ skilled people in your village?  (Note to interviewer: please ask about profiles not names). |                                    |

| C3. In your opinion, what problems do the education system in your community face?   |  |
|--|--|
| C4.1. Which healthcare facilities are available in this village? And which type of care do they provide  |  |
| C4.2. And which type of care do they provide? (e.g. acute care, preventive, immunization etc.)?  |  |
| C5. What illnesses are most prevalent in your community?   |  |
| C6.1. How would you describe the infrastructure and facilities serving this community?  (e.g. buildings, roads, power supplies, sanitation and waste management) |  |

| C6.2. What are the biggest problems in this regard?                             |  |
|---|--|
| B7.1. Which types of public transportation means are available in this village? |  |
| B7.2. And do you have any traffic issues?                                       |  |
| B8.1. Who provides the law enforcement in the village?                          |  |
| B8.2. And how do you estimate the level of crime in this village?               |  |

| B9. Who are the main players in public safety issues ?  (e.g. fire, earthquake, coastal flood, maritime accidents) |  |
|--|--|
| B9.a. How many centers are available?  |  |
| B9.b. How fast and qualified is aid normally administered by those players?  |  |
| B9.c. Are there fire engines, ambulances and hospitals in this village?  |  |
| B10.1. What are the forms of communication used by people in your community?                                       |  |

| <b>B10.2.</b> And what problems connected with communication services are typical for your community? |  |  |
|---|--|--|
| <b>B11.1.</b> What are the historical and cultural sites available in your village?                   |  |  |
| B11.2. Where are they located?  |  |  |
| <b>B11.3.</b> what traditions and customs still exist in your community?                              |  |  |
| D. ECONOMY AND LIVELIHOOD   |  |  |

| D1. What are the main economic drivers, or the main work sectors available in this village?  (Note to interviewer: please try to ask for percentages) |            |
|---|------------|
| D2. What is the percentage of formal vs. informal businesses in this village?   |            |
| D3.1. What are specifically the businesses available on the shore line?   |            |
| D3.2. And who are engaged in those businesses?  (Note to interviewer: please ask for profiles not names)  |            |
| D4.1. Do you have any port in this village?   | ☐ Yes ☐ No |

| D4.2. If yes, by whom it is managed? Used? and for what purposes?  |  |
|--|--|
| D5. What is the percentage of employed vs. unemployed individuals in this village?   |  |
| D6. What are the employment rates distributed across sectors?  |  |
| D7. What are the main reasons behind unemployment in your community?   |  |
| D8. Which section of the population is most affected by unemployment?  (graduates, young people, people in the right age to work, retired persons, women, men, people of what nationality, former military people, refugees, etc.) |  |

| D9.1. How do you describe the tourism in your village?   |  |  |
|--|--|--|
| D9.2. What are the main touristic sites and activities? Where are they? Do you have any coastal or marine tourism? |  |  |
| D10. How dependent is this village on tourism/ marine tourism? Please describe.                                    |  |  |
| D11. What are the main issues in the village?  |  |  |
| E. ENVIRONMENT AND NATURAL RESOURCE USE  |  |  |
| E1. What are the natural resources available in this village?  |  |  |

| E2.1. Who are the parties managing those natural resources?                                      |  |  |
|--|--|--|
| E3.a. Please describe briefly the climate  |  |  |
| E3.b. Please describe briefly the air quality  |  |  |
| E3.c. Please describe briefly the water quality  |  |  |
| <b>E4.1.</b> Are there any local organization engaged in environmental matters in this village?  |  |  |
| E4.2. What are their roles exactly?  |  |  |
| E5. Are there any industrial which affect the environment and natural resources of this village? |  |  |
| (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods)    |  |  |
| F. CLOSING   |  |  |
| F1. Do you have any question or issue that you would like to raise?                              |  |  |

| F2. Are there any stakeholders that you may recommend us to also talk with? |                  |  |
|---|------------------|--|
|   | ADDITIONAL NOTES |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |
|   |                  |  |

## TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE - STAKEHOLDERS - NGO'S AND AGENCIES

| Name of village:<br>(Village/Caza/Block Number):   |  | Date of interview :           |                          |
|--|--|-------------------------------|--------------------------|
| Name of Interviewee :  |  |                               |                          |
| Gender of Interviewee  |  |                               |                          |
| Position of Interviewee  |  |                               |                          |
| Name of interviewer :  |  |                               |                          |
| Notes  | Please introduce the oil drilling activities usin<br>opportunity for questions and answers | ng the BIDs and posters and g | give the participants an |
| STA  | KEHOLDER ENGAGEMENT AND IMPACT   | ASSESSMENT                    |                          |
| Q1. Please introduce the oil drilling activities using the BIDs and posters. Once completed give the participants an opportunity for questions and you provide an answers to their questions as far as possible. If you cannot answer then please take the stakeholders contact details and tell them you will get the answer and get back in contact as soon as possible. |  |                               |                          |
| Q2. Now, do you have questions?  |  |                               |                          |
|  | CULTURAL HERITAGE  |                               |                          |
|  | A. DEMOGRAPHICS  |                               |                          |
| A1. What is your name?   |  |                               |                          |
| A2. ARE YOU FROM THIS VILLAGE?   |  |                               |                          |
| A2.1 HOW LONG HAVE YOU BEEN RESIDING IN THIS VILLAGE?  |  |                               |                          |
|  | B. AREA OF INTEREST  |                               |                          |

| <b>B1.</b> PLEASE CAN YOU TELL US ABOUT THE CULTURAL SITE THAT YOU MANAGE   |  |
|---|--|
| B1.1. WHAT IS IT ? (BRIEF SUMMARY)  |  |
| B1.2. WHERE IT IS SPECIFICALLY LOCATED (GEOREFERENCED)?   |  |
| B1.3. IS IT ON THE SEA SHORE?   |  |
| B2. WHY IS THIS SITE IMPORTANT?   |  |
| <b>B3.</b> WHEN DID IT BECOME A MANAGED SITE?   |  |
| <b>B4.</b> IN YOUR OPINION, WHAT IS THE CURRENT CONDITION OF THE SITE (GOOD, IN DECLINE, POOR ETC)? IF IN DECLINE OR POOR, WHY? |  |
| <b>B5.</b> DOES THE SITE RECEIVE ANY KIND OF FUNDING (NATIONAL OR INTERNATIONAL)?   |  |
| <b>B6.</b> HOW MANY STAFF DOES IT EMPLOY?   |  |
| B7. DO YOU UNDERTAKE ANY RESTORATION ACTIVITIES?  |  |
| B8. IN GENERAL, WHO VISITS THE SITE (TOURISTS/LEBANESE?)  |  |
| B9. WHEN IS THE BUSIEST SEASON?   |  |
| <b>B10.</b> HOW MUCH DOES IT COST TO ENTER THE SITE?  |  |

| <b>B10.</b> A. IS THERE A DIFFERENT TARIFF FOR LEBANESE?  |   |
|---|---|
| B10. B. DO YOU OFFER TOUR PACKAGES?   |   |
| B11. DO TOURISTS STAY OVERNIGHT LOCALLY IN HOTELS OR ARE THEY PASSING THROUGH?  |   |
| B12. DO YOU ENCOUNTER ANY ISSUES WITH THE SITE? IF SO WHAT ARE THEY? ARE THEY SEASONAL?   |   |
| B13. WHAT ARE THE BENEFITS FOR THE COMMUNITY YOU ARE IN FOR HAVING THIS CULTURAL HERITAGE SITE NEARBY   |   |
| <b>B14.</b> Do you know any other cultural heritage sites nearby in the coastal areas or in the sea?  |   |
|   | C. ENVIRONMENT AND NATURAL RESOURCE USE |
| C1. WHAT ARE THE NATURAL  |   |
| RESOURCES (BOTH OFFSHORE AND ONSHORE) AVAILABLE IN THIS VILLAGE?  |   |
| ONSHORE) AVAILABLE IN THIS  |   |
| ONSHORE) AVAILABLE IN THIS VILLAGE?  C2.1. WHO ARE THE PARTIES MANAGING THOSE NATURAL   |   |
| ONSHORE) AVAILABLE IN THIS VILLAGE?  C2.1. WHO ARE THE PARTIES MANAGING THOSE NATURAL RESOURCES?  C2.2. WHO ARE THE ONES WHO MAKE   |   |
| ONSHORE) AVAILABLE IN THIS VILLAGE?  C2.1. WHO ARE THE PARTIES MANAGING THOSE NATURAL RESOURCES?  C2.2. WHO ARE THE ONES WHO MAKE USE OF THEM?  (NOTE TO INTERVIEWER: PLEASE PROBE INTO AVAILABILITY OF SEASHELL AND SEA WORM COLLECTORS, SAND EXTRACTION,  |   |
| ONSHORE) AVAILABLE IN THIS VILLAGE?  C2.1. WHO ARE THE PARTIES MANAGING THOSE NATURAL RESOURCES?  C2.2. WHO ARE THE ONES WHO MAKE USE OF THEM?  (NOTE TO INTERVIEWER: PLEASE PROBE INTO AVAILABILITY OF SEASHELL AND SEA WORM COLLECTORS, SAND EXTRACTION, SALT HARVESTING)  C3.A. PLEASE DESCRIBE BRIEFLY THE  |   |
| ONSHORE) AVAILABLE IN THIS VILLAGE?  C2.1. WHO ARE THE PARTIES MANAGING THOSE NATURAL RESOURCES?  C2.2. WHO ARE THE ONES WHO MAKE USE OF THEM?  (NOTE TO INTERVIEWER: PLEASE PROBE INTO AVAILABILITY OF SEASHELL AND SEA WORM COLLECTORS, SAND EXTRACTION, SALT HARVESTING)  C3.A. PLEASE DESCRIBE BRIEFLY THE CLIMATE  C3.B. PLEASE DESCRIBE BRIEFLY THE             |   |
| ONSHORE) AVAILABLE IN THIS VILLAGE?  C2.1. WHO ARE THE PARTIES MANAGING THOSE NATURAL RESOURCES?  C2.2. WHO ARE THE ONES WHO MAKE USE OF THEM?  (NOTE TO INTERVIEWER: PLEASE PROBE INTO AVAILABILITY OF SEASHELL AND SEA WORM COLLECTORS, SAND EXTRACTION, SALT HARVESTING)  C3.A. PLEASE DESCRIBE BRIEFLY THE CLIMATE  C3.B. PLEASE DESCRIBE BRIEFLY THE AIR QUALITY |   |

| C5. FROM YOUR EXPERIENCE, ARE THERE ANY INDUSTRIAL (E.G. AIRBORNE, WATERBORNE, SOLID WASTE, NOISE) OR NATURAL HAZARDS (E.G. EARTHQUAKES, FLOODS) WHICH AFFECT THE ENVIRONMENT AND NATURAL RESOURCES OF THIS VILLAGE? | □ YES □ NO                           |
|--|--------------------------------------|
| C.5.A. IF YES, HOW IS YOUR<br>BUSINESS IMPACTED? PLEASE<br>DESCRIBE  |                                      |
|  | EDUCATION AND SKILLS A. DEMOGRAPHICS |
| A1. What is your name?   |                                      |
| A2. ARE YOU FROM THIS VILLAGE?   |                                      |
| A2.1 HOW LONG HAVE YOU BEEN RESIDING IN THIS VILLAGE?  |                                      |
|  | B. AREA OF INTEREST                  |
| <b>B1.</b> What is the overall objective of your organization and who are the intended beneficiaries?  |                                      |
| B2. What is the geographical area covered by your organization?  |                                      |
| B3. In what ways does your organization support the education in this community (or Caza/Governorate)?   |                                      |
| (Note to interviewer: please probe into provision of access to all children including refugees, advocacy for government, provision of non-formal education, and provision of support for small and rural schools)    |                                      |
| B4. What barriers exist for you/ and all organizations that work in the education field to enhancing the education system?   |                                      |
| (Note to interviewer: Please probe into laws, policies, social norms or beliefs, government roles/responsibilities, access to resources, power of decision making)   |                                      |
| B5. How many schools and universities are available in this community (and/or area they cover)(specify preschool/primary/secondary/tertiary etc)?  |                                      |
| B6. How would you describe the current education system in this community (probe as to why and ask about gender issues)?   |                                      |

| <b>B7.1.</b> DOES IT PREPARE STUDENTS FOR WORKFORCE?   | □ YES □ NO    |            |  |
|--|---------------|------------|--|
| B7.2. If yes, how? If no, why not?   |               |            |  |
| <b>B8.</b> In your opinion, what problems do the education system in this community face?  |               |            |  |
| B9.1. ARE YOU SATISFIED WITH THE EDUCATIONAL LEVEL OF THE INHABITANTS OF THIS COMMUNITY?   |               |            |  |
| B9.2. WHO ARE THE LEAST VS. MOST EDUCATED/ SKILLED PEOPLE IN YOUR VILLAGE?   |               |            |  |
| (NOTE TO INTERVIEWER: PLEASE ASK<br>ABOUT PROFILES NOT NAMES)  |               |            |  |
| <b>B10.</b> Who do you identify as vulnerable in this community ( categories e.g. elderly not names)?  |               |            |  |
| B11. Are you satisfied with the educational level of the vulnerable people in this community? Please describe  |               |            |  |
| B12. IN YOUR OPINION, WHAT ARE THE FACTORS THAT POSITIVELY AND NEGATIVELY INFLUENCE VULNERABLE PEOPLE IN YOUR COMMUNITY?   |               |            |  |
| (Note to moderator: please probe into details of the main issues for vulnerable people in this community – are there any positive aspects? Are issues different for male to female?) |               |            |  |
|  | a. Net Enrolr | nent Rate  |  |
| <b>B13.</b> From a statistical perspective, please share the current status of the below indicators:   | b. Dropout R  | ate        |  |
| (Note to interviewer: please try to get percentages or at least approximate answers)   | c. Repetition | ı Rate     |  |
|  | d. Gender Pa  | rity Index |  |

|   | e. Youth Literacy Rate                      |      |
|---|---|------|
|   | f. Percentage of Out-of-<br>school Children |      |
|   | g. Adult Literacy or<br>Illiteracy Rate     |      |
| <b>B14.</b> Which types of economic activities are available in this village?   |   |      |
| (Note to interviewer: please probe into low, medium and high skills jobs as well as land-based livelihoods vs. marine activities)   |   |      |
| B14.a. Who performs those activities?   |   |      |
| (Note to moderator: Please probe into <b>gender</b> : female vs. male, <b>age groups</b> : youth vs. adults vs. elderly, <b>nationality groups</b> : Lebanese vs. refugees) |   |      |
|   | ENVIRONMENT                                 |      |
|   | B. DEMOGRAPHIO                              | .5   |
| A1. What is your name?  |   |      |
| A2. ARE YOU FROM THIS VILLAGE?  |   |      |
| A2.1 HOW LONG HAVE YOU BEEN RESIDING IN THIS VILLAGE?   |   |      |
| A3. What is the population of the community?  |   |      |
|   | B. AREA OF INTER                            | REST |
| <b>B1.</b> What is the objective of your organization and who are the beneficiaries?  |   |      |
|   | a. Climate                                  |      |
| <b>B2.</b> Please describe briefly the: in this community.  | b. Air quality                              |      |
|   | c. Water quality                            |      |

|  | d. Onshore ecology and geology  |  |
|--|---------------------------------|--|
|  | e. Offshore ecology and geology |  |
|  | f. Natural Resources            |  |
| B3. What are the natural resources (both offshore and onshore) available in this village?  |                                 |  |
| .B4.a. Who are the parties managing those natural resources?   |                                 |  |
| <b>B4.b.</b> And who are the ones who make use of them?  |                                 |  |
| (Note to interviewer: please probe into availability of seashell and sea worm collectors, sand extraction, salt harvesting, tourism) |                                 |  |
| <b>B5.</b> Do the coastline villages have unique environmental features? If yes, please describe                                     |                                 |  |
| B6. What are the most important coastal and marine resources located in this area?   |                                 |  |
| B7. In what ways does your organization support or protect the Environment in this area?   |                                 |  |
| <b>B8.1.</b> What are the biggest environmental issues in this area?   |                                 |  |
| B8.2. And what are the biggest marine environmental issues in specific?  |                                 |  |
| B9. Who are the main/ key players that heavily influence the Environment in Lebanon?   |                                 |  |
| (Note to interviewer: please probe into parties managing coastal and marine resources in specific)                                   |                                 |  |

| B10.a. Are there any other local organization engaged in environmental matters in this village? What are their roles exactly?   |                        |
|---|------------------------|
| <b>B10.b.</b> What are their roles exactly?   |                        |
| B11. What barriers exist for you/ and all organizations that work in the environmental field, to protecting and enhancing the "Environment of Lebanon" in all its aspects?  |                        |
| (Note to interviewer: Please probe into laws, policies, social norms or beliefs, government roles/responsibilities, access to resources, power of decision making)  |                        |
| B12. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment and natural resources of this village? |                        |
| <b>B13.</b> How do you describe the fishing activities in this area (probe what fishing activities are there? How do they fish? Where do they fish?)?   |                        |
| B14. From your experience, who are the people involved in fishing in this area? In what types?  |                        |
| (Note to interviewer: please probe into artisanal/traditional, commercial, recreational)  |                        |
| B15. Approximately, how many fishermen are there in this village (as a livelihood or as a recreational activity please specify)?  |                        |
| B16. Is fishing properly managed? (what are the issues?)  |                        |
|   |                        |
|   | HEALTH C. DEMOCRAPHICS |
| A.1. What is your name?   | C. DEMOGRAPHICS        |
| A2. ARE YOU FROM THIS VILLAGE?  |                        |
| A2.1 HOW LONG HAVE YOU BEEN RESIDING IN THIS VILLAGE?   |                        |

A3. How large is your village?

| B. AREA OF INTEREST   |   |  |  |  |
|---|---|--|--|--|
| B1. What is the objective of your organization and who are the beneficiaries? |   |  |  |  |
|   | a. What is your view on the strengths and weaknesses of the healthcare system in this area? How do you evaluate its growth in the last five years?                |  |  |  |
| B2. Please briefly describe the healthcare system in this area:               | b. What is your view on the strengths and weaknesses of the healthcare system in this area? How do you evaluate its growth in the last five years?                |  |  |  |
|   | c. Which types of healthcare facilities are available? Do they meet the needs of the entire population?   |  |  |  |
|   | d. Are there sufficient numbers of health workers? How qualified are the healthcare professionals at those facilities? And what about technologies and equipment? |  |  |  |
|   | e. Is medical treatment costly? And what types of support are available in this regard?   |  |  |  |
|   | f. Is non-traditional medicine common in this area? If yes, in what form does it exist?   |  |  |  |
|   | g. Who do you identify as vulnerable in this community (categories of people not names)? Do they receive proper medical care? Please describe.                    |  |  |  |

| <b>B3.</b> What are the most prominent illnesses and diseases in this area?   |  |
|---|--|
| B4. In what ways does your organization work in the health sector in this village/area?   |  |
| B5.a. Are there any other local organization engaged in health matters in this village?   |  |
| B5.b. What are their roles exactly?   |  |
| B6. What barriers exist for you/ and all organizations that work in the health sector?  |  |
| (Note to interviewer: Please probe into laws, policies, social norms or beliefs, government roles/responsibilities, access to resources, power of decision making)  |  |
| B7. Are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the human health in Lebanon in general and in coastal villages in specific? |  |
| B8.1. What are the biggest environmental issues in this area?   |  |
| B8.2. And what are the biggest marine environmental issues in specific?   |  |
| B9. Who are the main/ key players that heavily influence the Environment in Lebanon?  |  |
| (Note to interviewer: please probe into parties managing coastal and marine resources in specific)  |  |
| B10.a. Are there any other local organization engaged in environmental matters in this village? What are their roles exactly?   |  |
| <b>B10.b.</b> What are their roles exactly?   |  |

|   | <del>,</del>                            |
|---|---|
| B11. What barriers exist for you/ and all organizations that work in the environmental field, to protecting and enhancing the "Environment of Lebanon" in all its aspects?  |   |
| (Note to interviewer: Please probe into laws, policies, social norms or beliefs, government roles/responsibilities, access to resources, power of decision making)  |   |
| B12. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment and natural resources of this village? |   |
| <b>B13.</b> How do you describe the fishing activities in this area (probe what fishing activities are there? How do they fish? Where do they fish?)?   |   |
| <b>B14.</b> From your experience, who are the people involved in fishing in this area? In what types?   |   |
| (Note to interviewer: please probe into artisanal/traditional, commercial, recreational)  |   |
| B15. Approximately, how many fishermen are there in this village (as a livelihood or as a recreational activity please specify)?  |   |
| B16. Is fishing properly managed? (what are the issues?)  |   |
|   | C. ENVIRONMENT AND NATURAL RESOURCE USE |
| C1. WHAT ARE THE NATURAL RESOURCES (BOTH OFFSHORE AND ONSHORE) AVAILABLE IN THIS VILLAGE?   |   |
| C2.1. WHO ARE THE PARTIES MANAGING THOSE NATURAL RESOURCES?   |   |
| C2.2. WHO ARE THE ONES WHO MAKE USE OF THEM?  |   |
| (NOTE TO INTERVIEWER: PLEASE PROBE INTO AVAILABILITY OF SEASHELL AND SEA WORM COLLECTORS, SAND EXTRACTION, SALT HARVESTING)   |   |
| C3. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment and natural resources of this village?  |   |
| C3.a. If yes, how is your business impacted? Please describe  |   |

| HUMAN RIGHTS AND VULNERABLE GROUPS   |   |  |  |
|--|---|--|--|
|  | A. DEMOGRAPHICS   |  |  |
| A.1. What is your name?  |   |  |  |
| A2. ARE YOU FROM THIS VILLAGE?   |   |  |  |
| A2.1 HOW LONG HAVE YOU BEEN RESIDING IN THIS VILLAGE?                                      |   |  |  |
| A3. How big is the village?  |   |  |  |
|  | B. AREA OF INTEREST                                     |  |  |
| <b>B1.</b> What is the objective of your organization and who are the beneficiaries?       |   |  |  |
|  | a. Total Population                                     |  |  |
|  | b. Density  |  |  |
|  | c. Religious Groups                                     |  |  |
| B2. Please briefly describe the demographics of Lebanon:                                   | d. Diaspora   |  |  |
|  | e. Lebanese Civil War refugees and displaced persons    |  |  |
|  | f. Immigrants and Ethnic<br>Groups (including refugees) |  |  |
|  | g. Any others?  |  |  |
| B3.a. How do you evaluate the living standards of Lebanese people and the life expectancy? |   |  |  |
| B3.b. In this community in specific?   |   |  |  |

| <b>B4.</b> What are the main issues faced by the community?   |  |
|---|--|
| <b>B5.</b> Who are the vulnerable groups in this community/area?  |  |
| <b>B6.</b> What are the biggest issues faced by the vulnerable groups?  |  |
| B7. In what ways does your organization support vulnerable groups in this community?  |  |
| B8. How do you describe the state of human rights in this community?  |  |
| (Note to interviewer: please probe into torture, political detentions, limitations on freedom of speech, abuse and discrimination cases, freedom of religion, voting rights, internet restrictions etc) |  |
|   |  |
| <b>B9.a.</b> What types of human rights violations are committed most often in this community?  |  |
| B9.b. Against whom?   |  |
| B9.c. By whom? And why?   |  |
| <b>B10.</b> In what ways does your association protect human rights in this community?  |  |
| <b>B11.a.</b> Are there any other local organization engaged in similar activities in this village?   |  |
| B11.b. What are their roles exactly?  |  |
| <b>B12.</b> What barriers exist for you/ and all organizations that work in this field?   |  |
| (Note to interviewer: Please probe into laws, policies, social norms or beliefs,  |  |

| government roles/responsibilities, access<br>to resources, power of decision making)   |  |           |
|--|--|-----------|
|  | C. ENVIRONMENT AND NATURAL RESO  | DURCE USE |
| C1. WHAT ARE THE NATURAL RESOURCES (BOTH OFFSHORE AND ONSHORE) AVAILABLE IN THIS VILLAGE?  |  |           |
| C2.1. WHO ARE THE PARTIES MANAGING THOSE NATURAL RESOURCES?  |  |           |
| C2.2. WHO ARE THE ONES WHO MAKE USE OF THEM?   |  |           |
| (NOTE TO INTERVIEWER: PLEASE PROBE INTO AVAILABILITY OF SEASHELL AND SEA WORM COLLECTORS, SAND EXTRACTION, SALT HARVESTING)  |  |           |
| C3. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment and natural resources of this village? |  |           |
| C3.a. If yes, how is your business impacted? Please describe   |  |           |
|  | PUBLIC SAFETY AND SECURITY   |           |
|  | B. DEMOGRAPHICS  |           |
| A.1. What is your name?  |  |           |
| A2. ARE YOU FROM THIS VILLAGE?   |  |           |
| A2.1 HOW LONG HAVE YOU BEEN RESIDING IN THIS VILLAGE?  |  |           |
|  | B. AREA OF INTEREST  |           |
| <b>B1.</b> How do you evaluate the general security and stability in this community?   |  |           |
| B2. Who are the main players in  | a. How many centers are available?   |           |
| public safety issues (e.g. fire, earthquake, coastal flood, maritime accidents, disasters, emergency medical services)?  | b. How fast and qualified is aid<br>normally administered by those<br>players? |           |

|  | 1  |                |                  |         |  |
|--|----|----------------|------------------|---------|--|
|  | C. | Are there fire | e engines, ambu  | ılances |  |
|  |    | and hospitals  | in this village? |         |  |
|  |    | ·              | · ·              |         |  |
|  |    |                |                  |         |  |
| <b>B3.1.</b> Who protects the maritime boundaries and natural resources of the republic?   |    |                |                  | ,       |  |
|  |    |                |                  |         |  |
| <b>B3.2.</b> Who protects the offshore resources in this village?  |    |                |                  |         |  |
| B3.a. How many coastal agents/units are there?   |    |                |                  |         |  |
|  |    |                |                  |         |  |
| B3.b. Where are they located?  |    |                |                  |         |  |
| B4.1. Who provides the law   |    |                |                  |         |  |
| enforcement in the village?  |    |                |                  |         |  |
|  |    |                |                  |         |  |
| B4.2. What is the role of each?  |    |                |                  |         |  |
| B4.a. How do you estimate the level  |    |                |                  |         |  |
| of crime in this village?  |    |                |                  |         |  |
| B4.b. What types of crimes/excesses  |    |                |                  |         |  |
| of laws and order are committed most often in this village and why?  |    |                |                  |         |  |
| <b>B4.c.</b> What categories of population   |    |                |                  |         |  |
| commit crimes/excesses of laws and order most often and why?   |    |                |                  |         |  |
| B4.d. Characterize local police authorities (performance of duties, competence, professionalism,   |    |                |                  |         |  |
| sufficiency of equipment, etc.)?   |    |                |                  |         |  |
|  |    |                |                  |         |  |
|  |    |                |                  |         |  |
| DE Every control of the control of t |    |                |                  |         |  |
| B5. From your experience, what are the current biggest threats on this community public safety and security?   |    |                |                  |         |  |
| B6.1. In what ways does your   |    |                |                  |         |  |
| organization promote public safety and security?   |    |                |                  |         |  |
|  | 1  |                |                  |         |  |

| <b>B6.2.</b> What types of interventions your organization makes in this community?  |   |
|--|---|
| B7.1. Are there any other local organization engaged in safety and security matters in this village?   |   |
| B7.2. What are their roles exactly?  |   |
| B8. What barriers exist for you/ and all organizations that work in the public safety and security?  |   |
| (Note to interviewer: Please probe into laws, policies, social norms or beliefs, government roles/responsibilities, access to resources, power of decision making)   |   |
|  | C. ENVIRONMENT AND NATURAL RESOURCE USE |
| C1. WHAT ARE THE NATURAL RESOURCES (BOTH OFFSHORE AND ONSHORE) AVAILABLE IN THIS   |   |
| VILLAGE?   |   |
| C2.1. WHO ARE THE PARTIES MANAGING THOSE NATURAL RESOURCES?  |   |
| C2.1. WHO ARE THE PARTIES MANAGING THOSE NATURAL   |   |
| C2.1. WHO ARE THE PARTIES MANAGING THOSE NATURAL RESOURCES?  C2.2. WHO ARE THE ONES WHO MAKE USE OF THEM?  (NOTE TO INTERVIEWER: PLEASE PROBE INTO AVAILABILITY OF SEASHELL AND SEA WORM COLLECTORS, SAND EXTRACTION, SALT HARVESTING) |   |
| C2.1. WHO ARE THE PARTIES MANAGING THOSE NATURAL RESOURCES?  C2.2. WHO ARE THE ONES WHO MAKE USE OF THEM?  (NOTE TO INTERVIEWER: PLEASE PROBE INTO AVAILABILITY OF SEASHELL AND SEA WORM COLLECTORS, SAND                              |   |

#### **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 5.4 Question and Answer Key Informant Interviews and Focus Group Discussions

80754









[This page has intentionally been left blank.]

### TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON FOCUS GROUPS DISCUSSION GUIDE FOR FISHERMEN / ANGLERS/ FISHING HOUSEHOLDS (WOMEN)

| Name of village:   | - Byblos   | Date of the discussion:                       | - 22/05/2019                 |
|--|--|---|------------------------------|
| Name(s) of attendees:  |  |   |                              |
| Notes  | Please introduce the oil drilling act opportunity for questions and ansitions. | tivities using the BIDs and posters a<br>wers | and give the participants an |
| THEME 1  | - STAKEHOLDER ENGAGEMENT   | AND IMPACT ASSESSMENT                         |                              |
| Q1. Please introduce the oil drilling activities using the BIDs and posters. Once completed give the participants an opportunity for questions and you provide an answers to their questions as far as possible. If you cannot answer then please take the stakeholders contact details and tell them you will get the answer and get back in contact as soon as possible. |  |   |                              |
| Q2. Now, do you have questions?  |  |   |                              |
|  | THEME 2: SOCIO-ECONOM  |   |                              |
|  | A. DEMOGRAF  | PHICS   |                              |
| A.1.1. What is your name?  |  |   |                              |
| A.1.2.What is your age?  | - 44<br>- 30<br>- 49<br>- 32<br>- 25   |   |                              |

|  | - 67  |
|--|---|
| A2.1. Are you married?   | - No - No - Yes - Yes - No - Yes - No - Yes   |
| A2.2. If yes, how many kids do you have?   | - 3<br>- 1<br>- 4   |
| A3.1. Are you from this village?   |   |
| A3.2. How long have you been residing in this village?   |   |
| A4. How many people live in the village?   | One stated: Between 4000 and 6000 citizen   |
| A5. What is your profession?   | <ul> <li>University professor and audiovisual (photography) freelancer</li> <li>Chef</li> <li>Carpenter</li> <li>Info</li> <li>Unemployed</li> <li>Carpenter</li> <li>B. FISHING ACTIVITIES</li> </ul>            |
| <b>B1.1.</b> Are you/ or is anyone in your household, currently involved in fishing?   | One stated: Yes my son accompanies me One stated: my girlfriend (jokingly) One stated: family members are often involved  |
| B1.2. What types?  (Note to interviewer: please probe into artisanal/traditional, commercial, recreational)  | One stated: All kinds of fishing; it's mainly a hobby, but when we have excess fish, we tend to sell it   |
| B2. What type of boats/ powerboats are you using for fishing?  (Note to moderator: please probe into size of boat, motor/sail, number of fishermen in each boat) | One stated: The boat is six meters and a half, and six people can use it. One stated: The boat is five meters, and four people can use it. One stated: I don't have a boat, sometimes I sail on my friend's boat. |
| B3. What are the specific fishing gears employed?  (e.g. hook and line, traps, nets, diving gears, dynamite etc)   | One stated: We use nets, hooks, fishing rods, ropes One stated: bang sticks   |

|   | One stated: We used to catch all kinds of fish, but right now not so much        |
|---|--|
| <b>B4.1.</b> What types of fish?  | anymore.   |
|   | One stated: Every season brings different kinds of fish (in the winter we catch  |
|   | ), however there are specific kinds of fish (Sargus, Pagellus,                   |
|   | Squid, العقيس) that we always catch regardless of the season.                    |
|   | One stated: There are kinds of fish (Tuna, Pagrus pagrus 2) who travel like      |
|   | birds  |
|   | One stated: fishermen tend to catch large quantities of fish and store them in   |
|   | order to sell them (indiscriminate fishing). In addition to the weather change   |
|   | that resulted in the disappearance of certain types of fish.                     |
|   | One stated: The 2006 war did damaging effects to the fishing business like the   |
|   | disappearance of certain kinds of fish (Sea Urchin).                             |
|   | One stated: Some kinds of fish who came from the Dead Sea like catfish and       |
|   | light fish are also affecting the fish culture (these fish are considered as     |
|   | predators and right now they are located outside of their environment)           |
|   | One stated: it depends, fishermen who use fishing rode fish on the shore, and    |
|   | others fish on the boat.   |
|   | One stated: people who fish tuna usually go six to ten miles away from the       |
| <b>B4.2.</b> Where do you go for fishing?   | shore (year after year the number of fish in the sea is getting lower, like tuna |
|   | for example)   |
| (Note to moderator: please probe into distances in kilometers, near/ far from shore (for anglers in | One stated: we go on the boat from aqua, to Amchit and finally to Batroun. We    |
| specific), also ask if they fish from the shore)  | go to certain locations for specific types of fish.                              |
|   | One stated: boats are not allowed to go beyond a 10 miles radius, if a boat does |
|   | get beyond the 10 miles radius, the owner has to talk with the army because of   |
|   | the regional boundaries.   |
|   |  |
|   | One stated: I go fishing almost 3 times a week (in the morning and evening)      |
| <b>B5.</b> When do you usually go for fishing?  | One stated: we aren't enjoying it anymore, we are paying gas but we can't        |
| (Note to moderator: please probe into hour, time  | catch fish   |
| of the day and seasons)   | One stated: I don't go during winter, but I go two times a week in summer        |
|   | One stated: We go fishing one or two times a month on the shore (depending       |
|   | on the weather)  |
|   |  |
|   | One stated: Sometimes we don't catch anything                                    |
| <b>B6.</b> How much fish do you catch on an average   | One stated: Almost four kilograms (one month ago)                                |
| fishing trip?   | One stated: Three kilograms  |
|   | One stated: It depends what type of fish is available                            |
|   |  |
|   |  |
|   |  |
| B7. How do you preserve the fish?   | (The interviewed calcula what do you do with the firth ()                        |
| (Note to moderator: ice or smoked, other?)  | (The interviewer asked: what do you do with the fish?)                           |
| to moderator, the or smoken, other:)  | One stated: We eat it directly (we don't sell it)                                |
|   |  |
|   |  |
|   |  |
| <b>B8.</b> Does anyone help you with fishing?   |  |
| (Note to moderator: please probe into who are   | One stated: of course  |
| the crew members if any e.g family members,   | One stated: it's a hobby, so we take our friends mostly so we can have fun       |
| poorer members of community, refugees)  |  |
|   |  |
|   |  |

| B8.a. If yes, what is their role? How do they exactly help you?   |  |
|---|--|
| B8.b. How females are involved in fishing? Are there gender differentiated roles?   | One stated: Many females (and kids) go fishing; it's a hobby suitable for everyone.  One stated: A smaller percentage of females than males go fishing.  One stated: 90% of men fish, while only 50% of women fish |
| B8.c.1. Are there any similar examples in community?  |  |
| B8.c.2. What are the roles of people engaged in fishing in your community?  |  |
| B9. What type of fish do you catch and what do you do with the fish catch?  | Answered above   |
| B9.a. Are these goods for sale/ Used for own consumption/ For leisure? If for sale, please describe how.  |  |
| (through a cooperative, wholesaler, street vendors, how much per kilo)  |  |
| <b>B9.b.1.</b> How do you advertise your fish?  |  |
| B9.b.2. Who is involved in the marketing and sales process?  (Note to moderator: please probe into the roles of men vs. women in the household) |  |

| B9.c. Are there markets available for fishermen/ individuals conducting marine activities to sell their fishes/ products/ services? | One stated: fisheries One stated: Fish markets are available in Tripoli and Beirut. One stated: fish markets are similar to auctions (bidding on fish  |
|---|--|
| B9.d.1. Do you/ or does any household member earn any income from fishing?  | ☐ Yes ☒ No, One stated: this hobby does cost us money and we don't earn any income from it. One stated: The fisherman pays money to go fishing and has fun, but he doesn't always catch fish and when he does he forgets everything else and enjoys it. What we like about this hobby is simply catching fish and eating them. One stated: The amount we pay to fish is greater than the income we earn practicing this hobby; if someone makes a living out of fishing he would quit it.  |
| B9.d.2. If yes, what is its share from the total household income?  | NOT ASKED  |
| B9.d.3. Do you have any alternative livelihood activities that you undertake alongside fishing?                                     | NOT ASKED  |
| B10. Approximately, how many fishermen are there in your village (as a livelihood or as a recreational activity please specify)?    | One stated: They are many One stated: the coast is filled with fishermen. One stated: If someone wants to go fishing, he'd see fishermen more than fish. One stated: small fish are thrown on the ground instead of in the sea   |
| B11.1. From your experience, what problems at seas are there?   | One stated: Lack of organization One stated: If you go to Nahr Ibrahim, you see people putting their nets from one side of the coast to another in front of your hook. And if you go fishing on the boat, you see the same thing before even arriving to the port. One stated: The staff of the Ministry of Agriculture earns their salaries but do not do their job, they do not supervise or give fishermen assistance. One stated: They bought control boats, but did not use them (they probably threw them) One stated: The amount of sewage reaching the sea is very high One stated: Pollution One stated: garbage (from fishermen and boats) One stated: Boats often dispose of their fuel in the sea One stated: Humans are the cause of these problems |

| B11.2. What changes have you noticed over the years?  (Note to moderator: please probe into safety, equipment, pollution, fish stock (plenty of fish or few fish)etc.)   | One stated: We used to enjoy fishing and used to catch a lot of fish, now there's no more fish.  One stated: The sea was very clean and not polluted One stated: The number of fishermen and housing increased, and so did the pollution. Domestic sewages are directly poured into the sea. One stated: Chemicals thrown into the sea. One stated: many factories are disposing their sewage in the river (Nahr Ibrahim) which connects with the sea. Factors affecting negatively: One stated: lack of organization  |
|--|--|
| B12. What are the factors that positively and negatively influence fishing activities in your area?  (Note to moderator: please probe into problems faced by fishermen in this village, work conditions and welfare)   | One stated: indiscriminate fishing One stated: lack of awareness One stated: There are a couple of accounts on social media that are trying their best to spread awareness when it comes to indiscriminate fishing. People are sending to these accounts complaints, which are then sent to the Ministry of Agriculture. But people started to think that it's useless to send complaints since the Ministry is not acting upon them. One time, the ministry actually responded and acted (a fine was given to fishermen doing indiscriminate fishing) and people were very pleased. But that was it. There is no positive |
| C1. How would you describe the current coastal resource conditions in your   | factor; the ministry is not working on the problems. Many accounts contacted the ministry offered to help and work on the problems but nobody would listen to a civilian if the Ministry does not back him up. The Ministry only cares about burning trees.  SOCIO-ECONOMIC INDICATORS AT THE LOCAL LEVEL  One stated: Dirty   |
| C2. What are the top 3 major threats to the health of coastal resources in your community?   | One stated: The large number of resorts popping up on the coast (garbage, large number of swimmers, boats close to the coast) One stated: Factories One stated: The sewage network is not refining the water; instead it's disposing the dirty water in the sea.   |
| C3. Who do you identify as vulnerable in your community?   | One stated: the poor One stated: poor fishermen who try to make a living out of selling fish One stated: Anyone who cares about the sea and is trying to help One stated: Unemployed men and women   |
| C4. Besides fishing, are there any other marine activities available in this village?  (Note to moderator: Please probe into boat repairing, net making, collecting seashells, sand extraction, salt extraction, sea worm collection, molluscs or small fish collection, rubbish scavengersetc.) | One stated: boat repairing is available, there are experts who give this service in exchange of a certain fee (nobody is nice enough to help for free) One stated: since the war of 2006, many activities like collecting seashells have stopped. This war affected the economy. One stated: because of the oil that was drilled in the sea back in 2006, fish are having a hard time finding food, they started to disappear. Certain types of fish (Mediterranean fish) traveled to the red sea (and vice versa)   |

| C4.a. Which activities? Who performs those activities and where?  (Note to moderator: Please probe into gender: female vs. male, age groups: youth vs. adults vs. elderly, nationality groups: Lebanese vs. refugees)                                  | One stated: Diving activities (Using a bang stick while diving is against the law, however people are taking diving courses in order to use bang sticks and fish) One stated: Swimming One stated: Water sports (water skiing, wind surfing, Jet Ski)   |
|--|---|
| C4.b. How women are involved in such activities?   | One stated: Some women practice and teach scuba diving. One stated: we have professional women divers One stated: Some of them don't even use gears (free diving) and they are usually dedicated to this lifestyle.   |
| C4.c. Which season in a year are these activities performed?   |   |
| C4.d.1. Do they earn income from those activities?   | All stated: yes One stated: from gear rental, course fees   |
| C4.d.2. And do they have alternative livelihoods?  |   |
| C4.e. Do they have any major problems or sensitivities in community?   |   |
| C5.a. What other types of economic activities are available in this village?  (Note to moderator: Please probe into landbased livelihoods like farming, businesses, markets, artisans etc.)  | One stated: parking and shisha cafes One stated: Restaurants One stated: Cultivation of vegetables (cucumber, lettuce, tomato) One stated: Artisans and craftsmen in the past (but their number has decreased and they mostly left and disappeared) what happened was that craftsmen did not teach their kids this "hobby" since they know it's not a good source of income. Kids started to search other jobs, they opened restaurants and pubs. |
| C5.b. What about those specifically located on the coastline?  (Note to moderator: please probe into beach resorts, hotels, marine tourism by tour operators, diving/surfing schools, retail/rental services of fishing supplies or sea equipmentetc.) |   |

| C5.c. Can you give estimate shares of each of those economic activities, at the local level?            | One stated: resorts and restaurants make tons of money One stated: Resorts are investing on the public beach, they are paying a certain amount, and I'd like to know where the taxes go. One stated: they are taking a big portion of the beach (trespassing) for free. One stated: Marine tourism helps the economy of our community but it's declining. One stated: we used to see many foreigners One stated: there are many fishing stores. One stated: many fishing stores opened and then closed One stated: There are only three or four real fishing supply stores that sell good quality products. Small fishing stores sell low quality products that are made in china, but real fishermen prefer to buy good quality products that last longer (Samir Sport and Azzi Sport). |     |                      |  |
|---|--|-----|----------------------|--|
| C6.1. Do you have any touristic site in this village?   | ⊠ Yes □ No   |     |                      |  |
| C6.2. If yes, what is it exactly? where is it located and do you have tour operators? Boat trips?       | One stated: Byblos is filled with touristic sites One stated: The castle and the port One stated: The old market One states: The beach is touristic  |     |                      |  |
|   |  | Y/N | Location             |  |
| C7. Do you have any of the following in your village? If yes, please describe and indicate the location | Nature reserves  | Yes | (Bentael) Near Anaya |  |
|   | Temples, palaces, castles  | Yes | Byblos               |  |

|   | Ottoman<br>structures  | Yes | Near the old market      |
|---|--|-----|--------------------------|
|   | Museums  | Yes | In the old market        |
|   | Religious<br>heritage  | Yes | Edde and near the market |
|   | World Heritage   |     |                          |
| C8. Do you have adequate water supplies in your village?  | ⊠ Yes No   |     |                          |
| C9. What about electricity and waste management services?  (Note to moderator: Please probe on the coastal part of the village as well) | One stated: they started recently managing the waste One stated: In Byblos, the municipality is collecting and sorting the garbage One stated: We have electricity generators. |     |                          |
| C10.1. In general, are the roads in your village in good condition?   | □ Yes ⊠ No   |     |                          |

| C10.2. Are there any public transport services?  | One stated: Yes, the municipality offers battery electric vehicles to facilitate transportation near the sites.  |  |
|--|--|--|
| (Note to moderator: Please probe on the coastal part of the village as well)   |  |  |
| C11.a.1. What illnesses are most prevalent in your community?  | One stated: Being broke (sarcastically) One state: Cancer is not common. There isn't a lot of illness in Keserouane. One stated: There is no specific illness in Byblos  |  |
| C11.a.2. And does fishing cause any health hazards?  | One stated: No, it's the same as any sport One stated: Diving and free diving is dangerous (the divers are not always responsible and get into many accidents. Divers need to use the right equipment, which is not the case here)   |  |
| C11.b. Which healthcare facilities are available in your village?  (Note to moderator: Please probe into hospitals, public clinics, mobile clinics, how far they areetc.). | One stated: healthcare facilities are available if you can afford to get treated, if you don't have enough money they'll throw you out (jokingly).  One stated: Two hospitalities (hôpital notre dame maritime, Bouar governmental hospital)  One stated: there's also a hospital in Batroun |  |
| C11.c.1. Are they reliable services?   |  |  |
| C11.c.2. If no, why not?   | NOT ASKED  |  |
| C11.d.1. Do they meet the community healthcare needs?  | ⊠ Yes □ No   |  |
| C11.d.2. If no, why not and do you think you need more healthcare facilities in the area?  |  |  |

| C12. a.1. What about the educational services?  | One stated: There are many schools, and some universities One stated: Schools are very good, universities (LAU) are average One stated: There are private and public schools One stated: Religious and secular schools   |  |
|---|--|--|
| C12. a.2. Do you have schools/ training centers in your village?  (Note to moderator: please probe into the different levels: primary schools, secondary schools, universities and technical schools) | Answered ABOVE   |  |
| C12.b. How do you evaluate the educational levels by age groups (youth, adults and elderly) in your communities?  | One stated: educated men and women are not finding jobs. Only people who have connections can succeed.  One stated: Education wasn't available in the old days.  (the question was also asked differently: related to gender)  One stated: The educational level between both genders is the same  One stated: Females tend to reach a higher level of education, males have more hobbies (sport) unlike females |  |
| C13.1. How do you describe the safety and security conditions in your area?   | All stated: It's secure and safe   |  |
| C13.2. Which parties play the major role(s) in this regard?   | All stated: The municipality, the army and the Internal Security Forces.   |  |
| C14. Are there any associations or NGOs in your community (if so what do they do?)  | All stated: Yes One stated: Unesco One stated: kafa One stated: the red cross  |  |
| C15. What problems exist in the community?  | One stated: Unemployment (there's no job opportunities) One stated: Health care problems (he's talking about on a personal level): factories and crushers are close to the villages and houses (there is a Formica factory in Byblos that spreads polluted air since the 1970s) and when we report it to the ministry, they shut it down, than the factory reopens (it's backed up by the Ministry)              |  |
| THEME 3   | COMMUNICATION AND FEEDBACK MECHANISMS  |  |
| Q1. What are your most important information needs in relation to the upcoming oil exploration activity?  | One stated: We hope that the maritime traffic will be monitored and organized by the Ministry of Agriculture and the Ministry of Public Works and the Ministry of Transportation One agreed and stated: yes, for the sake of elderly fishermen, and any fisherman not equipped with a good light and we hope awareness will be spread on the port to fishermen.  |  |

|  | One stated: if the project was successful and oil was found within 12 months, when will the drilling activity begin? And how much is the government going to benefit from this project? (the last question was unclear)  One state: are we going to have free gas for a year or gas at a discounted prices (joking)?  One stated: because in Lebanon we are used to the fact that the government (politicians) benefits from the deal and as a result, we as citizen do not see any positive change.  One stated: Are fishermen going to receive proper assistance? |
|--|---|
| Q2. How do you like to receive any future project updates?                 | One stated: By social media One stated: Television (news)   |
| Q3. Are there any stakeholders that you would recommend that we talk with? | One stated: Hire Lebanese instead of foreigners, many Lebanese are unemployed   |
|  | ADDITIONAL NOTES  |

| <ul> <li>Kids are not following their parent's footsteps, and this is why artisans have disappeared from Byblo.</li> <li>There is specific hospital in Tripoly that is not reliable.</li> <li>One fisherman believes that prospecting will attract more fish, because of the metallic structure (iron will be placed in the sea. Fishermen are seeking locations with oil wells which is attracting a large number of fish.</li> <li>The interviewer also asked about General safety conditions (if the roads are lit, signs, traffic lights)</li> <li>One stated: generally these are available</li> <li>One stated: it's getting better</li> </ul> | ) that |
|--|--------|
|  |        |

### TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON FOCUS GROUPS DISCUSSION GUIDE FOR FISHERMEN / ANGLERS/ FISHING HOUSEHOLDS (WOMEN)

| Name of village:  | jounieh-safra  | Date of the discussion: | 21st of may 1:00 PM      |
|---|--|-------------------------|--------------------------|
| Name(s) of attendees:   |  |                         |                          |
| Notes   | Please introduce the oil drilling active opportunity for questions and answer. |                         | give the participants an |
| THEME 1 DEMOGRAPHICS  | . – STAKEHOLDER ENGAGEMENT   | AND IMPACT ASSESSMENT   |                          |
| Q1. Please introduce the oil drilling activities using the BIDs and posters. Once completed give the participants an opportunity for questions and you provide an answers to their questions as far as possible. If you cannot answer then please take the stakeholders contact details and tell them you will get the answer and get back in contact as soon as possible.  Q2. Now, do you have questions? |  |                         |                          |
| THEME 2: SOCIO-ECONOMIC OVERVIEW  |  |                         |                          |
|   | A. DEMOGRAP  | HICS                    |                          |
| A.1.1. What is your name?   |  |                         |                          |

| A.1.2.What is your age?  A.1.2.What is your age?  A.1.2.What is your age?  |                                    |  |  |
|--|------------------------------------|--|--|
| A.1.2.What is your age?  - 30 - 63 - 69 - 31 - 34 - Yes haret sakher) - Born and lived in Jounieh  A3.2. How long have you been residing in this village?  A4. How many people live in the village?  One stated: 34 years One stated: 34 years One stated: 50,000 citizen live in Jounieh One stated: 50,000 citizen live in Jounieh One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)  |                                    |  |  |
| A.1.2.What is your age?  - 63 - 69 - 31 - 34  - Yes out my personal status is outside of jounieh - No (from Beirut) - No (from Beirut) - Yes - Yes - Yes (haret sakher) - Born and lived in Jounieh  A3.2. How long have you been residing in this village?  One stated: 34 years One stated: 20 years  One stated: 20 yours  One stated: 50,000 citizen live in Jounieh One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)  |                                    |  |  |
| - 69 - 31 - 34  - Yes but my personal status is outside of jounieh - No (from Beirut) - Yes - Yes (haret sakher) - Born and lived in Jounieh  - A3.2. How long have you been residing in this village?  - A4. How many people live in the village?  - One stated: 34 years - One stated: 20 years - One stated: 30,000 citizen - One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik - One stated: 150,000 citizen (2014 statistics)  |                                    |  |  |
| - 31 - 34  - Yes but my personal status is outside of jounieh - No (from Beirut) - Yes - Yes (haret sakher) - Born and lived in Jounieh  - A3.2. How long have you been residing in this village?  - One stated: 34 years One stated: 20 years  - One stated: 50,000 citizen One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)  | A.1.2.What is your age?            | - 63   |  |
| - 34  - Yes - Obcsn't have kids - Docsn't have kids - Docsn't have kids - 2 - 4 - 1 - 2 - Yes but my personal status is outside of jounieh - No (from Beirut) - Yes - Yes (haret sakher) - Born and lived in Jounieh  A3.2. How long have you been residing in this village?  A4. How many people live in the village?  One stated: 34 years One stated: 20 years  One stated: 50,000 citizen live in Jounieh One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)   |                                    | - 69   |  |
| - Yes but my personal status is outside of jounieh - No (from Beirut) - Yes - Yes (haret sakher) - Born and lived in Jounieh  A3.2. How long have you been residing in this village?  A4. How many people live in the village?  One stated: 34 years One stated: 20 years  One stated: 50,000 citizen One stated: 50,000 citizen One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)  |                                    | - 31   |  |
| A2.1. Are you married?  - Yes - Doesn't have kids - Doesn't have kids - Doesn't have kids - 2 - 4 - 1 - 2 - Yes but my personal status is outside of jounieh - No (from Beirut) - Yes - Yes (haret sakher) - Born and lived in Jounieh  A3.2. How long have you been residing in this village?  A4. How many people live in the village?  One stated: 34 years One stated: 20 years  One stated: 50,000 citizen live in Jounieh One stated: 50,000 citizen One stated: Shounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)   |                                    | - 34   |  |
| A2.1. Are you married?  - Yes - Onesn't have kids - Doesn't have kids - Doesn't have kids - 2 - 4 - 1 - 2 - Yes but my personal status is outside of jounieh - No (from Beirut) - Yes - Yes (haret sakher) - Born and lived in Jounieh  A3.2. How long have you been residing in this village?  A3.4. How many people live in the village?  One stated: 34 years One stated: 20 years  One stated: More than 20,000 citizen live in Jounieh One stated: 50,000 citizen One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)  |                                    | - Yes  |  |
| A2.1. Are you married?  - Yes - Onesn't have kids - Doesn't have kids - Doesn't have kids - 2 - 4 - 1 - 2 - Yes but my personal status is outside of jounieh - No (from Beirut) - Yes - Yes (haret sakher) - Born and lived in Jounieh  A3.2. How long have you been residing in this village?  A4. How many people live in the village?  One stated: 34 years One stated: 20 years  One stated: 50,000 citizen live in Jounieh One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)   |                                    | - Yes  |  |
| - Yes - Yes - Yes - Yes - Yes - Doesn't have kids - 2 - 4 - 1 - 2 - Yes but my personal status is outside of jounieh - No (from Beirut) - Yes - Yes (haret sakher) - Born and lived in Jounieh  A3.2. How long have you been residing in this village?  A4. How many people live in the village?  One stated: 34 years One stated: 20 years  One stated: More than 20,000 citizen live in Jounieh One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)   |                                    | - Yes  |  |
| - Yes - Yes - Yes  - 2 - Doesn't have kids - Doesn't have kids - Doesn't have kids - Doesn't have kids - 2 - 4 - 1 - 2  - Yes but my personal status is outside of jounieh - No (from Beirut) - Yes - Yes (haret sakher) - Born and lived in Jounieh   A3.2. How long have you been residing in this village?  A4. How many people live in the village?  One stated: 34 years One stated: 20 years  One stated: 50,000 citizen live in Jounieh One stated: 50,000 citizen live in Jounieh One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)   | A2.1. Are you married?             | - Yes  |  |
| - Yes - Yes - Yes - Yes  - 2 - Doesn't have kids - Doesn't have kids - Doesn't have kids - 1 - 2 - 4 - 1 - 2 - Yes but my personal status is outside of jounieh - No (from Beirut) - Yes - Yes (haret sakher) - Born and lived in Jounieh  A3.2. How long have you been residing in this village?  A4. How many people live in the village?  One stated: 34 years One stated: 20 years  One stated: 50,000 citizen live in Jounieh One stated: 50,000 citizen live in Jounieh One stated: 50,000 citizen live in Jounieh One stated: 150,000 citizen (2014 statistics)   |                                    | - Yes  |  |
| - Yes  - 2 - Doesn't have kids - Doesn't have kids - Doesn't have kids - Doesn't have kids - 2 - 4 - 1 - 2  - Yes but my personal status is outside of jounieh - No (from Beirut) - Yes - Yes (haret sakher) - Born and lived in Jounieh   A3.2. How long have you been residing in this village?  A3.4. How many people live in the village?  One stated: 34 years One stated: 20 years  One stated: More than 20,000 citizen live in Jounieh One stated: 50,000 citizen One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)   |                                    |  |  |
| A2.2. If yes, how many kids do you have?  A2.2. If yes, how many kids do you have?  A3.1. Are you from this village?  A3.1. Are you from this village?  A3.2. How long have you been residing in this village?  A3.4. How many people live in the village?  A3.5. How many people live in the village?  A3.6. How many people live in the village?  A4. How many people live in the village?  A5.7. Are you from this village?  A6. How many people live in the village?  A7. How many people live in the village?  A8. How many people live in the village?  A9. Doesn't have kids  |                                    |  |  |
| A2.2. If yes, how many kids do you have?  A2.2. If yes, how many kids do you have?  A3.1. Are you from this village?  A3.1. Are you from this village?  A3.2. How long have you been residing in this village?  A3.2. How many people live in the village?  A4. How many people live in the village?  A5.4. How many people live in the village?  A6.5. How many people live in the village?  A7.5. How many people live in the village?  A8.6. How many people live in the village?  A8.7. How many people live in the village?  A8.8. How many people live in the village?  A8.9. How many people live in the village?  A9. How many people live in the village? |                                    |  |  |
| - Doesn't have kids - 2 - 4 - 1 - 2 - Yes but my personal status is outside of jounieh - No (from Beirut) - Yes - Yes (haret sakher) - Born and lived in Jounieh  - A3.2. How long have you been residing in this village?  - A4. How many people live in the village?  One stated: 34 years One stated: 20 years  One stated: More than 20,000 citizen live in Jounieh One stated: 50,000 citizen One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)  |                                    |  |  |
| A2.2. If yes, how many kids do you have?  - 2 - 4 - 1 - 2  - Yes but my personal status is outside of jounieh - No (from Beirut) - Yes - Yes (haret sakher) - Born and lived in Jounieh  A3.2. How long have you been residing in this village?  One stated: 34 years One stated: 20 years  One stated: 20 years  One stated: 50,000 citizen live in Jounieh One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)  |                                    |  |  |
| - 4 - 1 - 2 - Yes but my personal status is outside of jounieh - No (from Beirut) - Yes - Yes (haret sakher) - Born and lived in Jounieh  A3.2. How long have you been residing in this village?  One stated: 34 years One stated: 20 years  One stated: More than 20,000 citizen live in Jounieh One stated: 50,000 citizen One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)  | A2.2. If yes, how many kids do you |  |  |
| - 1 - 2  - Yes but my personal status is outside of jounieh - No (from Beirut) - Yes - Yes (haret sakher) - Born and lived in Jounieh  - A3.2. How long have you been residing in this village?  - One stated: 34 years One stated: 20 years  One stated: More than 20,000 citizen live in Jounieh  One stated: 50,000 citizen One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)  | have?                              |  |  |
| - Yes but my personal status is outside of jounieh - No (from Beirut) - Yes - Yes (haret sakher) - Born and lived in Jounieh  A3.2. How long have you been residing in this village?  One stated: 34 years One stated: 20 years  One stated: More than 20,000 citizen live in Jounieh  One stated: 50,000 citizen One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)   |                                    | - 4  |  |
| - Yes but my personal status is outside of jounieh - No (from Beirut) - Yes - Yes (haret sakher) - Born and lived in Jounieh  A3.2. How long have you been residing in this village?  One stated: 34 years One stated: 20 years  One stated: More than 20,000 citizen live in Jounieh  One stated: 50,000 citizen One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)   |                                    |  |  |
| - No (from Beirut) - Yes - Yes (haret sakher) - Born and lived in Jounieh  A3.2. How long have you been residing in this village?  One stated: 34 years One stated: 20 years  One stated: More than 20,000 citizen live in Jounieh One stated: 50,000 citizen One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)   |                                    |  |  |
| A3.1. Are you from this village?  - Yes - Yes (haret sakher) - Born and lived in Jounieh  A3.2. How long have you been residing in this village?  One stated: 34 years One stated: 20 years  One stated: More than 20,000 citizen live in Jounieh One stated: 50,000 citizen One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)  |                                    |  |  |
| - Yes (haret sakher) - Born and lived in Jounieh  A3.2. How long have you been residing in this village?  One stated: 34 years One stated: 20 years  One stated: More than 20,000 citizen live in Jounieh One stated: 50,000 citizen One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)  |                                    |  |  |
| - Born and lived in Jounieh  A3.2. How long have you been residing in this village?  One stated: 34 years One stated: 20 years  One stated: More than 20,000 citizen live in Jounieh One stated: 50,000 citizen One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)   | A3.1. Are you from this village?   | - Yes  |  |
| A3.2. How long have you been residing in this village?  One stated: 34 years One stated: 20 years  One stated: More than 20,000 citizen live in Jounieh One stated: 50,000 citizen One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)  |                                    | - Yes (haret sakher)                                 |  |
| One stated: 20 years  One stated: 20 years  One stated: More than 20,000 citizen live in Jounieh One stated: 50,000 citizen One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)   |                                    | - Born and lived in Jounieh                          |  |
| One stated: 20 years  One stated: 20 years  One stated: More than 20,000 citizen live in Jounieh One stated: 50,000 citizen One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)   | A3.2. How long have you been       | One stated: 34 years                                 |  |
| A4. How many people live in the village?  One stated: 50,000 citizen One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)  | - ·                                | · ·  |  |
| A4. How many people live in the village?  One stated: 50,000 citizen One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)  |                                    | One stated: More than 20,000 citizen live in Jouniah |  |
| Village?  One stated: Jounieh includes Haret sakher, Sahel Alma, Ghazir and until Kaslik One stated: 150,000 citizen (2014 statistics)   |                                    |  |  |
| One stated: 150,000 citizen (2014 statistics)  |                                    |  |  |
|  |                                    |  |  |
| - Lawyei   | _                                  |  |  |
| - Compute continues  | A5. What is your profession?       | · ·  |  |
| - Concrete contractor  |                                    |  |  |
| - Concrete contractor  |                                    |  |  |
| - Teacher  |                                    |  |  |
| - Sales man  |                                    |  |  |
| - Sales and application specialist   |                                    |  |  |
|  |                                    | T  |  |
| B. FISHING ACTIVITIES  |                                    |  |  |
| B1.1. Are you/ or is anyone in your One stated: My father likes to fish, but lately he doesn't anymore. My son on  |                                    |  |  |
| B1.1. Are you/ or is anyone in your household, currently involved in the other hand is beginning to like this hobby  | fishing?                           |  |  |

|  | One stated: All the family  |
|--|---|
|  | Interviewer: does your wife also fish?  |
|  | He replied: yes she does, we fish using a fishing rod   |
|  | One stated: One of my two kids likes to fish, we sometimes fish together  |
|  | One stated: My two kids like to fish, and one of them goes fishing regularly  |
|  | One stated: Me and my father go fishing together  |
|  | One stated: It's a hobby  |
|  | One stated: Many fishermen fish for commercial reasons  |
| B1.2. What types?  | One stated: People who use fishing rods usually practice fishing as a hobby   |
| (Note to interviewer: please probe into                              | One stated: For me it's commercial and a hobby at the same time   |
| artisanal/traditional, commercial,                                   | One stated: Por like it's commercial and a nobby at the same time.  One stated: people like Elie who don't have a job or are retired enjoy fishing as |
| recreational)  | a pass time, they go everyday to the sea and fish. And since he's a professional  |
|  | and catches large quantities of fish, he can't consume all of it so he sells it.  |
|  |   |
|  | One stated: We use fiber boats, they are similar to Felucca boats   |
|  | Interviewer: so you don't use wooden boats?   |
| <b>B2.</b> What type of boats/ powerboats are you using for fishing? | All stated: no  |
| are you using for rishing:   | Two stated: we fish using fishing rods on the shore   |
| (Note to moderator: please probe into size                           | One stated: Small launches (fiber)  |
| of boat, motor/sail, number of fishermen in each boat)               | Interviewer: what about their size?   |
|  | One stated: These boats are between four and eight meters   |
|  | Interviewer: how many fishermen per boat?   |
|  | One stated: Five people can use my boat (maximum)   |
|  | One stated: Three people can use my boat, four as a max   |
|  | One stated: fishermen who fish on the coast use telescopic fishing rod on the   |
|  | coast, and fishermen who fish on boats use trolling fishing ropes. There are also   |
|  | electric fishing ropes for 500 meters and 600 meters deep (we are very up-to-   |
| B3. What are the specific fishing gears employed?                    | date when it comes to fishing). We also use GPS and sonar.  |
|  | Interviewer: do you use all of these tools?   |
| (e.g. hook and line, traps, nets, diving                             | All stated: yes   |
| gears, dynamite etc)   | One stated: We also use cages   |
|  | Interviewer: do you practice diving?  |
|  | Two stated: no  |
|  | One stated: I dive but close to the shore (no deep diving)  |
|  | One stated: I also dive   |
|  | One stated: Jarbidi, on the shore. Fish have disappeared nowadays   |
|  | (jokingly). Al Bariq (although they disappeared two or three years ago).  |
|  | One stated:Lekoz mostly   |
| B4.1. What types of fish?  | One stated: Grauie  |
|  | One stated: Bullet and Sargus   |
|  | One stated: Tuna  |
|  | One stated: Ankawa (This fish is very intelligent; it eats the nets, and harms the  |
|  | fish. You even might get poisoned if you eat it)  |
|  | 0 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   |

|  | One stated. No place specific I fish on the whole spect   |
|--|---|
|  | One stated: No place specific, I fish on the whole coast  |
|  | One stated: From Saida to Beirut  |
|  | One stated: From Antelias to Anfeh  |
|  | One stated: from Ras Beirut until chekka. And on the shore of Jounieh.                                |
|  | Interviewer: do you use nets?   |
| 5 6 7 11 2   | All stated: We don't use nets   |
| <b>B4.2.</b> Where do you go for fishing?                              | One stated: I use nets (not padded) on the shore  |
| (Note to moderator: please probe into                                  | Interviewer: how far do you go?   |
| distances in kilometers, near/ far from                                | One stated: We go 20 to 30 kilometers far from the coast  |
| shore (for anglers in specific), also ask if they fish from the shore) | One stated: if you want to fish Tuna, you have to go far. If a boat wants to go                       |
| , ,  | beyond a nine kilometers radius, he has to get a permit from the army/the                             |
|  | Presidency of the Port of Beirut, Chekka, jbeil when you go beyond the nine                           |
|  | kilometers radius, you take a device with you (undulation 16) and the boat's                          |
|  | permit and you communicate with the army.   |
|  | One stated: In Jounieh we go 30 kilometers maximum and in Beirut 20 or 25                             |
|  | kilometers  |
|  | Interviewer: do you go fishing early in the morning?  |
|  | One stated: yes   |
|  | One stated: Sometimes I go fishing at 3:00 AM and come back at noon or the                            |
|  | afternoon.  |
|  | One stated: We always go fishing on holidays early in the mornings and come                           |
| B5. When do you usually go for   | back around noon  |
| fishing?   | One stated: I go fishing at 6:00 AM or 7:00 AM and sometimes I go at 11:00                            |
| (Note to moderator: please probe into                                  | PM and stay till 2:00 AM.   |
| hour, time of the day and seasons)                                     | One stated: I go fishing at 2:00 PM until 6:00 PM or 7:00 PM  |
|  | One stated: Today I went at 4:30 AM and came back at 12:30 PM   |
|  | Interviewer: is it the same case during summer and winter?  |
|  | One stated: when the sea is in a good condition we go fishing   |
|  | One stated: when the sea is in a good condition we go fishing  One stated: it's always in the morning |
|  | Interviewer: so it's the same   |
|  |   |
|  | One stated: 20 kilograms  |
|  | One stated: Sometimes I catch nothing at all  |
| P6 How much fish do you satish as a se                                 | One stated: It depends (8/9 kilograms)  |
| <b>B6.</b> How much fish do you catch on an average fishing trip?      | One stated: if you're fishing Tuna it might weighs more   |
| 3 3 .  | One stated: One time I caught 25 kilograms  |
|  | One stated: 5 to 10 kilograms   |
|  | One stated: 10 kilograms  |
|  | One stated: 2 to 3 kilograms per fisherman (amateur)  |
|  | Interviewer: what do you do with the fish you catch?  |
|  | One stated: we eat it   |
| B7. How do you preserve the fish?                                      | One stated: we don't freeze it  |
| (Note to moderator: ice or smoked, other?)                             | One stated: We freeze it  |
| (Note to moderator, ice of smoked, other!)                             | Interviewer: does anyone sell the fish?   |
|  | One stated: yes I sell fish but only fresh fish, I don't freeze it                                    |
|  | Interviewer: where?   |
|  |   |

|  | One stated: at fish markets and restaurants   |
|--|---|
|  | Interviewer: does anyone smoke fish?  |
|  | All stated: no  |
|  |   |
|  |   |
|  | One stated: We go as a group of friends and help each other (three or four  |
| <b>B8.</b> Does anyone help you with   | fishermen)  |
| fishing?   | One stated: We're a group of three or four people   |
| (Note to moderator: please probe into who                                    | One stated: I go alone and sometimes with family members  |
| are the crew members if any e.g family members, poorer members of community, | Interviewer: how do you help each others? Does every fisherman have his own   |
| refugees)  | tools?  |
| ,  | One stated: of course   |
|  | One stated: of course   |
|  |   |
| <b>B8.a.</b> If yes, what is their role? How do                              |   |
| they exactly help you?   |   |
|  |   |
|  |   |
|  | One stated: sometime men take their wives when they go fishing, but this is not                                     |
|  | common.   |
|  | One stated: We try not to take our wives because we want to have fun  |
|  | (jokingly)  |
|  | One stated: Yes women are involved in fishing   |
| <b>B8.b.</b> How females are involved in                                     | One stated: My wife accompanies me and she fishes with me   |
| fishing? Are there gender  | One stated: Half of the fishermen I know are women and they are very  |
| differentiated roles?  | professional, even better than me.  |
|  | One stated: they get lucky when they fish   |
|  | One stated: it's hard for a woman to go on a boat fishing trip (no WC)  |
|  | One stated: yes but they can fish on the shore  |
|  | One stated: yes but they can his on the shore  One stated: a woman might catch five kilograms of fish meanwhile you |
|  | wouldn't have caught anything   |
|  | wouldn't have caught anything   |
|  |   |
| <b>B8.c.1.</b> Are there any similar examples                                |   |
| in community?  |   |
|  |   |
|  |   |
|  |   |
| B8.c.2. What are the roles of people   |   |
| engaged in fishing in your   |   |
| community?   |   |
|  |   |
|  |   |

| B9. What type of fish do you catch and what do you do with the fish catch?   | One stated: I don't eat fish One stated: I send them as a gift, I don't eat fish. Interviewer: do you sell them? He replied: no One stated: what is he going to sell if he's fishing using a fishing rod?                                    |
|--|--|
| B9.a. Are these goods for sale/ Used for own consumption/ For leisure? If for sale, please describe how.  (through a cooperative, wholesaler, street vendors, how much per kilo) | One stated: Between 10.000LL and 35.000LL One stated: three kilogram of مواسطة might be sold for 10.000  |
| <b>B9.b.1.</b> How do you advertise your fish?   | One stated: I sell my fish through phone calls (to restaurants and fish markets) Interviewer: so you don't need to advertise, they already know that you sell fresh fish He replied: yes, and they reserve what they want (order beforehand) |
| B9.b.2. Who is involved in the marketing and sales process?  |  |
| (Note to moderator: please probe into the roles of men vs. women in the household)   |  |
| B9.c. Are there markets available for fishermen/ individuals conducting marine activities to sell their fishes/products/ services?   | One stated: There are a lot of fish markets here.  One stated: keep in mind that we are not professionals, for us this is only a hobby  One stated: there are professionals that catch 100 kilograms of                                      |
| B9.d.1. Do you/ or does any household member earn any income from fishing?   | - ☑ Yes ☑ No, All stated: it actually costs us money (about 500 USD per month)   |
| B9.d.2. If yes, what is its share from the total household income?   | One stated: Between 500 USD and 600 USD (only one of the anglers sells fish, the others do not make an income out of fishing) One stated: yes he might make 1,000,000 LL and other months he might not catch anything at all.                |
| B9.d.3. Do you have any alternative livelihood activities that you undertake alongside fishing?  |  |

|   | <del></del> -   |
|---|---|
|   | One stated: 1000 or 2000 fishermen? Anyone takes a fishing rod and goes             |
|   | fishing nowadays  |
|   | One stated: many come from outside of jounieh to fish (Batroun, Beirut)             |
| <b>B10.</b> Approximately, how many                                       | Interviewer: what about the fishermen of Jounieh's port?                            |
| fishermen are there in your village (as a livelihood or as a recreational | One stated: If you go on a Sunday, you'd see up to 50 fishing boats, and 20         |
| activity please specify)?   | fishermen on the coast. In every point in the port there are at least 10 fishermen. |
|   | One stated: if you go to Dbaye you can easily spot 10 to 15 fishermen and up to     |
|   | 30 fishermen  |
|   | One stated: There are minimum 10 fishermen at the port daily (it's easy to stand    |
|   | and it's suitable for everyone)   |
|   | One stated: there are many problems   |
|   | One stated: Pollution, indiscriminate fishing (fishing in the wrong seasons, tight  |
|   | nets, nets near the coast, catching fish before they reproduce), invasive fish      |
|   | (lion fish, catfish (not as dangerous as other invasive fish)).                     |
|   | One stated: Garbage is one of the main problems!                                    |
|   | One stated: there are also fishermen who put nets right under our fishing rods,     |
|   | this is unacceptable! Not to mention that they are not waiting for the fish to      |
|   | reproduce (مواسطة)  |
|   | One stated: Divers who don't abide by the law (they catch the fish without          |
|   | caring about its size) and the Toutia disappeared because of the pollution and      |
|   | indiscriminate fishing of the divers.   |
|   | One stated: The coast is hardly accessible anymore (you either can't go back to     |
|   | the location where you always fish or have to suck up to many, or you just          |
|   | change your location (marine property trespassing)                                  |
| <b>B11.1.</b> From your experience, what                                  | Interviewer: is there a law concerning this issue?                                  |
| problems at seas are there?   | One stated: yes there is, but it's not applied                                      |
|   | One stated: Resorts who are trespassing, they are preventing us from accessing      |
|   | the sea (security, doors) if you don't pay money you can't access                   |
|   | One stated: Domestic sewages are directly poured into the sea without               |
|   | refinement  |
|   | One stated: although we have refineries but they are not using them.                |
|   | Interviewer: where exactly?   |
|   | One stated: in port Jounieh   |
|   | One stated: in Tabarja  |
|   | One stated: in front of the municipality  |
|   | One stated: Oil pollution (from electric utility companies or from ships who are    |
|   | disposing and changing their oil in the sea due to lack of organization)            |
|   | One stated: I agree, I fish in Dawra and in my opinion; the garbage mountain is     |
|   | missing a port (sarcastically). And one time I got into a fight with a man at the   |
|   | port disposing of a cistern of sewage in the sea. (Bourj Hamoud)                    |

One stated: There are certain types of fish that disappeared (Toutia, shrimps, octopus, small fish...) and large fish are hard to find One stated: fish that live near the shore also disappeared because they can't find food anymore Interviewer: what type of food? One stated: seashells, scorpions, small crabs, small shrimps... because these types of fish also became very hard to find (like زلاق) for example) One stated: seaweeds Interviewer: how can we protect them? B11.2. What changes have you One stated: We have to create marine reserves noticed over the years? One stated: we need a fishing law and supervision (Note to moderator: please probe into One stated: fishing must be organized safety, equipment, pollution, fish stock (plenty of fish or few fish)...etc.) Interviewer: how did fishing tools change over the years? Did they become more dangerous? One stated: Fishing tools are more advanced (they make fishing easier), but they form a greater danger to the fish stock. (especially the sonar, which direct us straight to the fish, and it's against the law) One stated: is dynamite being used? One stated: Dynamite is not used anymore One stated: I disagree, dynamite is still being used One stated: yes in Damour One stated: Fish are safe during storms One stated: there is a law concerning fishing, if it was applied the sea would have been safe B12. What are the factors that One stated: natural reserves positively and negatively influence fishing activities in your area? One stated: Certain types of fish that travel from Suez Canal (flute, the stripped red mullet, barracuda, the lionfish) have a positive effect (they are filling a (Note to moderator: please probe into certain void) problems faced by fishermen in this village, work conditions and welfare) One stated: Sustainable fishing (accounts on social media "fishing in Lebanon" and "ISPL" are spreading awareness in the fishing community) [this answer was stated in a question C3) One stated: these accounts care more about advertising C. SOCIO-ECONOMIC INDICATORS AT THE LOCAL LEVEL One stated: Chaotic One stated: Fishermen who make a living out of fishing are poor; they don't have social security, the government is not helping them neither is the sea C1. How would you describe the anymore. Few are the fishermen who can only rely on their fishing income. In current coastal resource conditions in your community? addition, Marine tourism is weak (because of the pollution and lack of awareness) tourists don't come to Lebanon for its beach because it has a bad reputation One stated: Fishermen are getting greedy C2. What are the top 3 major threats to the health of coastal resources in your community?

|   | One stated. The government   |  |
|---|--|--|
|   | One stated: The government   |  |
|   | One stated: The unemployed   |  |
|   | One stated: Anyone who lives without social security or insurance (like the        |  |
|   | fishermen)   |  |
|   | One stated: fishermen fish in order to make a living; they go to the sea and       |  |
|   | catch small fish (they don't return it to the sea). They are hurting themselves by |  |
| C3. Who do you identify as vulnerable in your community?                                    | doing so.  |  |
| in your community.  | One stated: you can't tell the fisherman to stop fishing for three months          |  |
|   | because the fish are reproducing! How will he make money? He needs a salary!       |  |
|   | One stated: one time, they requested every fisherman who has a sea permit and      |  |
|   | registered our names so they can give us a salary during the three months when     |  |
|   | fish are reproducing. But we didn't get anything, the project was a fail.          |  |
|   | One stated: fish reproduce from march until june                                   |  |
|   | One stated: in Syria the fisherman has a salary                                    |  |
|   | All stated: Yes  |  |
|   | One stated: Marine tourism   |  |
|   | One stated: Diving   |  |
|   | One stated: Paragliding, water skiing  |  |
|   | One stated: swimming   |  |
|   | Interviewer: what about net making and boat repairing?                             |  |
| C4. Besides fishing, are there any  | One stated: they repair nets at the port. But nowadays they are importing nets     |  |
| other marine activities available in  | from China, and they are not repairing anymore.                                    |  |
| this village?   | Interviewer: and what about sand extraction?                                       |  |
| (Note to moderator: Please probe into   | One stated: yes this activity is available   |  |
| boat repairing, net making, collecting  | One stated: yes at Nahr el Kaleb but we don't know who is behind it                |  |
| seashells, sand extraction, salt extraction,<br>sea worm collection, molluscs or small fish | One stated: this year they made it illegal, if someone wants to extract sand he    |  |
| collection, rubbish scavengersetc.)   | has to throw it 300 meters far   |  |
|   | One stated: they are making tons of money  |  |
|   | Interviewer: what about sea worm collecting?                                       |  |
|   | One stated: some collect fish worm in order to sell them for fishermen             |  |
|   | Interviewer: why?  |  |
|   | One stated: they use it to fish (bait)   |  |
|   | One stated: one box is sold for 7.000 LL   |  |
|   | Interviewer: who performs these activities?  |  |
|   | One stated: some people made these activities their livelihood                     |  |
|   | Interviewer: do you know people who perform these activities?                      |  |
| C4.a. Which activities? Who performs those activities and where?                            | One stated: no   |  |
|   | One stated: I know someone in Dbaye and someone in Antelias                        |  |
| (Note to moderator: Please probe into gender: female vs. male, age groups:                  | One stated: I know someone at Ouzai  |  |
| youth vs. adults vs. elderly, nationality   | One stated: but they are not the ones who are collecting the worms                 |  |
| groups: Lebanese vs. refugees)  | Interviewer: do you know when they perform these activities?                       |  |
|   | One stated: no   |  |
|   | One stated: if the government wanted to know, they would have known                |  |
|   | (through sellers)  |  |

| C4.b. How women are involved in such activities?   |   |
|--|---|
| C4.c. Which season in a year are these activities performed?   |   |
| C4.d.1. Do they earn income from those activities?   |   |
| C4.d.2. And do they have alternative livelihoods?  |   |
| C4.e. Do they have any major problems or sensitivities in community?   |   |
| C5.a. What other types of economic activities are available in this village?  (Note to moderator: Please probe into land-based livelihoods like farming, businesses, markets, artisans etc.)   | One stated: Banana cultivation One stated: yes mostly bananas and citrus fruit cultivation One stated: cabarets One stated: Hotels, restaurants One stated: resorts One stated: sport fields One stated: private companies One stated: malls, law firms, architecture firms |
| C5.b. What about those specifically located on the coastline?  (Note to moderator: please probe into beach resorts, hotels, marine tourism by tour operators, diving/surfing schools, retail/rental services of fishing supplies or sea equipmentetc.) |   |

| C5.c. Can you give estimate shares of each of those economic activities, at the local level?            | Interviewer: what's the percentage of fishermen who make a living out of fishing?  One stated: 1%  Interviewer: what economic activity is the most widespread?  One stated: business (most of Jounieh's citizen work in Beirut)  One stated: tourism  Interviewer: what's the percentage of tourism in Jounieh?  One stated: the tourism in Jounieh became poor  One stated: around 40%   |       |                  |  |
|---|---|-------|------------------|--|
| C6.1. Do you have any touristic site in this village?   | ☑ Yes □ No  |       |                  |  |
| C6.2. If yes, what is it exactly? where is it located and do you have tour operators? Boat trips?       | One stated: The cable car (telepherique), the casino, our lady of Harissa One replied: our lady of Harissa and the casino is not in Jounieh One disagreed One stated: The beach One stated: we have religious sites (churches) Interviewer: what about tour operators? One stated: We do have boat tours in port jounieh; 15 or 20 people can fit on the boat (10.000 LL per person) Interviewer: how many boats (that organize tours) are there in Jounieh? One stated: 11 boats |       |                  |  |
|   |   | Y/N   | Location         |  |
| C7. Do you have any of the following in your village? If yes, please describe and indicate the location | a. Nature reserves  | - Yes | Harissa mountain |  |
|   | <b>b.</b> Temples, palaces, castles   | - No  |                  |  |

|   | T   | T     |                            |  |
|---|---|-------|----------------------------|--|
|   | <b>c.</b> Ottoman structures  | - No  |                            |  |
|   | <b>d.</b> Museums   | - Yes | The museum of independence |  |
|   | <b>e.</b> Religious heritage  | - Yes |                            |  |
|   | <b>f.</b> World Heritage  | - No  |                            |  |
| C8. Do you have adequate water supplies in your village?  | ☐ Yes ☒ No,  One stated: water is sometimes available but it's not in a good condition  One stated: it's not always available  One stated: and when it's available it's muddy  Interviewer: does it have pressure?  One stated: in certain places yes, but in other places no |       |                            |  |
| C9. What about electricity and waste management services?  (Note to moderator: Please probe on the coastal part of the village as well) | One stated: it's terrible One stated: Waste management is not available yet, but it will be soon because they started in Zouk (in general only 1% manage the waste) Interviewer: so who picks up the garbage? One stated: Ramco One stated: We have electricity generators.   |       |                            |  |

| C10.1. In general, are the roads in your village in good condition?  | ☐ Yes ☒ No One stated: for 18 years, I've never seen a tar truck in my neighborhood (in Dahr Salba)  |
|--|--|
| C10.2. Are there any public transport services?  (Note to moderator: Please probe on the coastal part of the village as well)  | One stated: No One stated: some public buses pass in Jounieh One stated: they go from Dawra until Jbeil, or until Tripoli One stated: We have a lot of cab companies   |
| C11.a.1. What illnesses are most prevalent in your community?  | One stated: Mostly cancer (because of the Zouk factory)  |
| C11.a.2. And does fishing cause any health hazards?  | One stated: Yes, fish may cause an illness due to pollution (زيبق) One stated: yes if the fishermen is fishing in a polluted area One stated: so on the danger is mainly on the consumer                         |
| C11.b. Which healthcare facilities are available in your village?  (Note to moderator: Please probe into hospitals, public clinics, mobile clinics, how far they areetc.). | One stated: There are many hospitals and clinics Interviewer: how close are the hospitals? One stated: there's a hospital in every village One stated: You only need seven minutes to reach the closest hospital |
| C11.c.1. Are they reliable services?   | ⊠ <mark>Yes</mark> □ No  |
| C11.c.2. If no, why not?   |  |
| C11.d.1. Do they meet the community healthcare needs?  | <ul> <li>✓ Yes ☐ No</li> <li>One stated: you only need money</li> <li>One stated: most of the times they don't have a place</li> </ul>   |

| One stated: We have nurseries, schools and universities.   |
|--|
|  |
|  |
| One stated: Jounieh is filled with educated females and males (regardless of their age) One stated: a fewer percentage of elderly have completed their education One stated: our parents did not go to university but they make do with what they have                         |
| [did not have the time to respond]   |
| One stated: The Lebanese army and the army intelligence One stated: The municipality provides security on a smaller level  |
| One stated: they are all about politics One stated: The red cross One stated: caritas One stated: there's also the governmental hospital in Bouar Interviewer: yes what about it? One stated: they are repairing it One stated: it's not reliable Interviewer: is it reliable? |
|  |

#### All stated: Pollution One stated: Traffic C15. What problems exist in the One stated: air and water pollution community? One stated: No electricity and no water and the living expense ( One stated: outside of jounieh, in Tripoli and Dahye you can find the same item for cheaper THEME 3: COMMUNICATION AND FEEDBACK MECHANISMS One stated (Roni): How would they prevent a gas leak? Interviewer: they will definitely treat it and will call experts to check the situation He replied (Roni): is there a plan b in this case? Interviewer: of course, and this is part of the plan One stated (Georges): Are they going to work according to the law? Interviewer: yes Total will abide by the law One stated: Will Total give fishermen assistance in case the project was successful? Interviewer: right now we are still in the drilling stage One stated: give them this idea Interviewer: what idea? He replied: if the project was a success, they need to give fishermen assistance because they are also sea partners Q1. What are your most important Interviewer: would you like me to send it to Total or to the Lebanese information needs in relation to the upcoming oil exploration activity? Government? He replied: the government is taking taxes from the fishermen. The government also needs help. Total [incomprehensible] One stated: Why are they doing this project now? Interviewer: they need to drill in order to find out the oil's quantity One stated: Will this project (the ship) create air pollution? Interviewer: the ship will not create air pollution. All vessels contracted by Total E&P will be required to follow international and national requirements with regard to handling of waste. The drillship will operate in strict accordance with both the International Convention for the Prevention of Pollution from Ships (MARPOL, 1973/1978), which prohibits the discharge of trash and regulates the discharge of liquid waste and atmospheric emissions from marine vessels. The primary discharges from the drillship will be, drill cuttings, treated wastewater effluent, and macerated food waste. One stated: we hope this will truly be applied Q2. How do you like to receive any future project updates? One stated: Television One stated: Social media

### Q3. Are there any stakeholders that you would recommend that we talk with?

One stated: The company's HR (for employment)

One stated: We hope they will hire Lebanese, because it's a project in Lebanon and for Lebanon (security, HR, project manager...)

#### **ADDITIONAL NOTES**

## TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON FOCUS GROUPS DISCUSSION GUIDE FOR FISHERMEN / ANGLERS/ FISHING HOUSEHOLDS (WOMEN)

| Name of village:  | Dbayeh   | Date of the discussion: | 30/05/2019                  |
|---|--|-------------------------|-----------------------------|
| Name(s) of attendees:   |  |                         |                             |
| Notes   | Please introduce the oil drilling active opportunity for questions and answer. |                         | nd give the participants an |
| THEME 1 DEMOGRAPHICS  | – STAKEHOLDER ENGAGEMENT A   | ND IMPACT ASSESSMENT    |                             |
| Q1. Please introduce the oil drilling activities using the BIDs and posters. Once completed give the participants an opportunity for questions and you provide an answers to their questions as far as possible. If you cannot answer then please take the stakeholders contact details and tell them you will get the answer and get back in contact as soon as possible.  Q2. Now, do you have questions? |  |                         |                             |
|   | THEME 2: SOCIO-ECONOMIC  | OVERVIEW                |                             |
|   | B. DEMOGRAPH   | ICS                     |                             |
| A.1.1. What is your name?   |  |                         |                             |
| A.1.2.What is your age?   | -26<br>-37<br>-57<br>Two stated :55<br>-33                                     |                         |                             |

|   | One stated: I am engaged  |
|---|---|
| A2.1. Are you married?  | Four stated : Yes   |
|   | One stated: I am single   |
| A2.2. If yes, how many kids do you  | One stated : One  |
| have?   | Three stated: Two   |
|   | One stated: I am from Sin El Fil  |
|   | One stated: I am from Broummana   |
| A3.1. Are you from this village?  | One stated: I am from Ashrafieh   |
|   | One stated: I am from Antelias  |
|   | One stated: I live in Zouk Mosbeh   |
| A3.2. How long have you been residing in this village?  | Not asked   |
| A4. How many people live in the village?  | Not asked   |
|   | [inaudible]   |
|   | One stated: IT in Balamand  |
| A5. What is your profession?  | One stated: I work as an audit  |
| AS. What is your profession?  | One stated: I own a library   |
|   | One stated: I own a cab driving business  |
|   | One stated : Electronic   |
|   | B. FISHING ACTIVITIES   |
|   |   |
| <b>B1.1.</b> Are you/ or is anyone in your household, currently involved in fishing?  | Not asked   |
| household, currently involved in  | Not asked  One stated: It has two sides, commercial and recreational  |
| household, currently involved in  |   |
| household, currently involved in  | One stated : It has two sides, commercial and recreational  |
| household, currently involved in fishing?   | One stated: It has two sides, commercial and recreational One stated: Each trip to the sea costs money, so it is normal that a person aims  |
| household, currently involved in fishing?  B1.2. What types?  (Note to interviewer: please probe into artisanal/traditional, commercial,  | One stated: It has two sides, commercial and recreational One stated: Each trip to the sea costs money, so it is normal that a person aims to make profit out of the fish he catches  |
| household, currently involved in fishing?  B1.2. What types?  (Note to interviewer: please probe into   | One stated: It has two sides, commercial and recreational One stated: Each trip to the sea costs money, so it is normal that a person aims to make profit out of the fish he catches One stated: Fishermen that go down to catch fish everyday, it is normal that   |
| household, currently involved in fishing?  B1.2. What types?  (Note to interviewer: please probe into artisanal/traditional, commercial,  | One stated: It has two sides, commercial and recreational One stated: Each trip to the sea costs money, so it is normal that a person aims to make profit out of the fish he catches One stated: Fishermen that go down to catch fish everyday, it is normal that this is there profession and they are making use of it, but people that go down   |
| household, currently involved in fishing?  B1.2. What types?  (Note to interviewer: please probe into artisanal/traditional, commercial,  | One stated: It has two sides, commercial and recreational One stated: Each trip to the sea costs money, so it is normal that a person aims to make profit out of the fish he catches One stated: Fishermen that go down to catch fish everyday, it is normal that this is there profession and they are making use of it, but people that go down once a month that's would probably be just recreational fishing   |
| household, currently involved in fishing?  B1.2. What types?  (Note to interviewer: please probe into artisanal/traditional, commercial,  | One stated: It has two sides, commercial and recreational One stated: Each trip to the sea costs money, so it is normal that a person aims to make profit out of the fish he catches One stated: Fishermen that go down to catch fish everyday, it is normal that this is there profession and they are making use of it, but people that go down once a month that's would probably be just recreational fishing One stated: For me it's more of recreational fishing, but for time to time it   |
| household, currently involved in fishing?  B1.2. What types?  (Note to interviewer: please probe into artisanal/traditional, commercial, recreational)  | One stated: It has two sides, commercial and recreational One stated: Each trip to the sea costs money, so it is normal that a person aims to make profit out of the fish he catches One stated: Fishermen that go down to catch fish everyday, it is normal that this is there profession and they are making use of it, but people that go down once a month that's would probably be just recreational fishing One stated: For me it's more of recreational fishing, but for time to time it does happen that I sell some of the fish [one agreed]   |
| household, currently involved in fishing?  B1.2. What types?  (Note to interviewer: please probe into artisanal/traditional, commercial,  | One stated: It has two sides, commercial and recreational One stated: Each trip to the sea costs money, so it is normal that a person aims to make profit out of the fish he catches One stated: Fishermen that go down to catch fish everyday, it is normal that this is there profession and they are making use of it, but people that go down once a month that's would probably be just recreational fishing One stated: For me it's more of recreational fishing, but for time to time it does happen that I sell some of the fish [one agreed] One stated: We all have boats   |
| household, currently involved in fishing?  B1.2. What types?  (Note to interviewer: please probe into artisanal/traditional, commercial, recreational)  B2. What type of boats/ powerboats are you using for fishing?   | One stated: It has two sides, commercial and recreational One stated: Each trip to the sea costs money, so it is normal that a person aims to make profit out of the fish he catches One stated: Fishermen that go down to catch fish everyday, it is normal that this is there profession and they are making use of it, but people that go down once a month that's would probably be just recreational fishing One stated: For me it's more of recreational fishing, but for time to time it does happen that I sell some of the fish [one agreed] One stated: We all have boats One stated: I don't own one, my friends have a boat and I tag along, they have  |
| household, currently involved in fishing?  B1.2. What types?  (Note to interviewer: please probe into artisanal/traditional, commercial, recreational)  B2. What type of boats/ powerboats are you using for fishing?  (Note to moderator: please probe into size   | One stated: It has two sides, commercial and recreational One stated: Each trip to the sea costs money, so it is normal that a person aims to make profit out of the fish he catches One stated: Fishermen that go down to catch fish everyday, it is normal that this is there profession and they are making use of it, but people that go down once a month that's would probably be just recreational fishing One stated: For me it's more of recreational fishing, but for time to time it does happen that I sell some of the fish [one agreed] One stated: We all have boats One stated: I don't own one, my friends have a boat and I tag along, they have a small yacht, and it's about 15 meters long   |
| household, currently involved in fishing?  B1.2. What types?  (Note to interviewer: please probe into artisanal/traditional, commercial, recreational)  B2. What type of boats/ powerboats are you using for fishing?   | One stated: It has two sides, commercial and recreational One stated: Each trip to the sea costs money, so it is normal that a person aims to make profit out of the fish he catches One stated: Fishermen that go down to catch fish everyday, it is normal that this is there profession and they are making use of it, but people that go down once a month that's would probably be just recreational fishing One stated: For me it's more of recreational fishing, but for time to time it does happen that I sell some of the fish [one agreed] One stated: We all have boats One stated: I don't own one, my friends have a boat and I tag along, they have a small yacht, and it's about 15 meters long One stated: I have two wooden fishing boats, approximately six meters each,   |
| household, currently involved in fishing?  B1.2. What types?  (Note to interviewer: please probe into artisanal/traditional, commercial, recreational)  B2. What type of boats/ powerboats are you using for fishing?  (Note to moderator: please probe into size of boat, motor/sail, number of fishermen in | One stated: It has two sides, commercial and recreational One stated: Each trip to the sea costs money, so it is normal that a person aims to make profit out of the fish he catches One stated: Fishermen that go down to catch fish everyday, it is normal that this is there profession and they are making use of it, but people that go down once a month that's would probably be just recreational fishing One stated: For me it's more of recreational fishing, but for time to time it does happen that I sell some of the fish [one agreed] One stated: We all have boats One stated: I don't own one, my friends have a boat and I tag along, they have a small yacht, and it's about 15 meters long One stated: I have two wooden fishing boats, approximately six meters each, and another boat  |
| household, currently involved in fishing?  B1.2. What types?  (Note to interviewer: please probe into artisanal/traditional, commercial, recreational)  B2. What type of boats/ powerboats are you using for fishing?  (Note to moderator: please probe into size of boat, motor/sail, number of fishermen in | One stated: It has two sides, commercial and recreational One stated: Each trip to the sea costs money, so it is normal that a person aims to make profit out of the fish he catches One stated: Fishermen that go down to catch fish everyday, it is normal that this is there profession and they are making use of it, but people that go down once a month that's would probably be just recreational fishing One stated: For me it's more of recreational fishing, but for time to time it does happen that I sell some of the fish [one agreed] One stated: We all have boats One stated: I don't own one, my friends have a boat and I tag along, they have a small yacht, and it's about 15 meters long One stated: I have two wooden fishing boats, approximately six meters each, and another boat One stated: I am currently making a wooden fishing boat that runs on benzene |

| B3. What are the specific fishing gears employed?                                    | One stated: Each season has its gear [several agreed] One stated: None of us uses nets or padded nets  |  |
|--|--|--|
| (e.g. hook and line, traps, nets, diving gears, dynamite etc)                        | One stated : We use cages for Mwasta [type of fish] [inaudible]  |  |
| B4.1. What types of fish?  | One stated: When fishing on shore you can catch Marmout, Sraghis, Ajej, Frafir, and Zerrek. If you go deeper you catch, Dakar Jarbidi, Jarbidi, Behlouk, Shtroubbet, and Abou Tabloush similar to Farride, you catch Douradroz on maybe 300 meters   |  |
| В  | One stated: From Ras Beirut to Tabarja One stated: We sometimes get to Khaldeh One stated: If you are going for a deep drop [fishing at the deep] then you will go from Ras Beirut to Jounieh or Tabarja One stated: I go from Nakoura to Abdeh, i go maybe 12 meters deep One stated: There are permits you need to have, to go in between six and 12 miles you need to have a permit from the army |  |
|  | One stated: We take it from Head of the Mina, but the army keeps track on us Moderator: Where do you usually use a fishing hook One stated: Maximum, two or three kilometeres from shore. As long as you are still under 100 meters deep you can fish with a fishing hook  |  |
|  | One stated: At times like these, if we weren't with you right now we would be at sea [they had this focus group at around 06:30 P.M.], and we stay out until maybe 03:00 A.M.  |  |
| DE Miles de concession de forfichie 2  | One stated: Timing differs according to seasons One stated: If we wanted to go fish Jarjara, we need to eiher go really early in   |  |
| B5. When do you usually go for fishing?  (Note to moderator: please probe into hour, | the morning, or late in the afternoon  Moderator: What differs in winter? Does anything change?  |  |
| time of the day and seasons)   | One stated: In winter we usually didn't try to fish, because the Mina used to be open, so we don't know. We usually bring our boats down starting April 25 <sup>th</sup> . Now the port is more secure so maybe we can leave our boats in until November maybe  One stated: It differs from port to port   |  |
| B6. How much fish do you catch on an average fishing trip?                           | One stated: I usually fish for Marmour, so at least you can have five or six kilos u until ten or 12 kilos depends on the time you spend at sea.  One stated: We fish out more than 100 kilos  Moderator: So you have the same boat size but you fish out more because you use a trolley  One stated: Yes  |  |
|  | Moderator: So what is the maximum weight you've reached?  One stated: Today we don't fish out as much as we used to maybe 20 years ago  One stated: In the season where Abou Sin is out, we might catch seven or eight fish, each one weighs minimum one kilo  |  |

| B7. How do you preserve the fish?  | One stated: We sell them  |
|--|---|
| (Note to moderator: ice or smoked, other?)                                   | One stated: We sell them or eat them  |
|  | One stated: No one process it   |
|  |   |
|  | One stated: If someone is going at night, he can't go alone he needs help, it's   |
|  | rare to find someone going alone at night   |
|  | One stated: I take my freinds   |
|  | Moderator: How many are they?   |
|  | One stated: I sometime go with one, or two friends                                |
|  | One stated: I go alone, i take no one with me                                     |
| PO Doos anyone help you with fishing?  | One stated: I usually go by myself, but like he said if i'm going at night I take |
| <b>B8.</b> Does anyone help you with fishing?                                | someone with me   |
| (Note to moderator: please probe into who                                    | One stated: If we dive we would be two  |
| are the crew members if any e.g family members, poorer members of community, | One stated: I take my brother with me   |
| refugees)  | One stated: My father tags along sometimes  |
|  | One stated: I take my uncle with me   |
|  | Moderator: Do you help each other out? Or is it every fisherman for himself?      |
|  | One stated: Of course we cooperate in everything, maybe in taking the fish out    |
|  | of the sea, give each other bait  |
|  | Moderator: But we are not talking about nets here right?                          |
|  | One stated: No, no one of us uses nets  |
|  | [Inaudible]   |
|  |   |
|  |   |
| B8.a. If yes, what is their role? How do they exactly help you?              | Not asked   |
| they exactly help you:   | Not asked   |
|  |   |
|  |   |
|  |   |
| B8.b. How females are involved in  |   |
| fishing? Are there gender differentiated roles?                              | Not asked   |
|  |   |
|  |   |
|  |   |
|  |   |
| <b>B8.c.1.</b> Are there any similar examples                                | Not asked   |
| in community?  | TYOU ASKED  |
|  |   |
|  |   |

| B8.c.2. What are the roles of people engaged in fishing in your community?  B9. What type of fish do you catch and what do you do with the fish catch?                           | Not asked  Not asked   |  |  |
|--|--|--|--|
| B9.a. Are these goods for sale/ Used for own consumption/ For leisure? If for sale, please describe how.  (through a cooperative, wholesaler, street vendors, how much per kilo) | One stated: We store some, we sell some One stated: We give some out One stated: You need to know something about fishing, if we are talking just as anglers, this job is not sustainable it is more of a hobby than a job, if you want to talk about sustainability, you then talk about the use of nets and traps  |  |  |
| <b>B9.b.1.</b> How do you advertise your fish?   | Not asked  |  |  |
| B9.b.2. Who is involved in the marketing and sales process?  (Note to moderator: please probe into the roles of men vs. women in the household)                                  | Not asked  |  |  |
| B9.c. Are there markets available for fishermen/ individuals conducting marine activities to sell their fishes/products/ services?   | One stated: Yes [several agreed] Several stated: We sometimes have our own customers to sell, we sell friends One stated: We sell fisheries Moderator: How much would you sell a kilo? One stated: You have a margin between 5,000 and 45,000 LBP Moderator: So you don't need to advertise your fish One stated: The local fish are in high demand, because it is tastier, eventhough there is competition, people want to eat local fish, that is why you sometimes find fish that are very expensive. Some of those fish are almost extinct |  |  |
| <b>B9.d.1.</b> Do you/ or does any household member earn any income from fishing?  | TO THE STATE AT THE SAID HE SAID HE HEARD DIVITE HOLL HOLL HOLLE AND OTHER HEARD THE   |  |  |

| B9.d.2. If yes, what is its share from the total household income?   | Not asked   |  |
|--|---|--|
| B9.d.3. Do you have any alternative livelihood activities that you undertake alongside fishing?  | All stated: Yes of course  Moderator: If we want to discuss the expenses you pay for fixing and repairs One stated: The revenues we get from fishing doesn't cover it we need to pay more out of our own pockets  Moderator: How much would you pay? One stated: I will give you the example of fishing for Marmour. If I want to fish for Marmour, I have to go to Jounieh, I will need three cans of worms which cost 30,000 LBP, and a half of tank of benzene, so that's 45,000 LBP per night for both worms and benzene, that's a minimum besides repairs, fishing hooks  Moderator: How much would you make? One stated: I catch between five to eight kilos of fish One stated: A tuna fishing trip costs about 200 USD for Benzene only One stated: Benzene expenses are huge |  |
| B10. Approximately, how many fishermen are there in your village (as a livelihood or as a recreational activity please specify)?                                       | One stated: The fishermen cooperative has about 260 members, but not all members own boats  Moderator: How many boats are there?  One stated: This question you will have to ask to the head of the cooperative we are not authorized to say  Moderator: If we want to talk about recreational fishing, are there a lot of boats for that?  One stated: Yes, there's about 200 maybe  One stated: They go on seasons, they start to bring there boats now at this time of year and they take them out by the end of summer  |  |
| B11.1. From your experience, what problems at seas are there?  | One stated: Fish decreased these days, there isn't as much fish anymore. We used to catch shrimp or [incomprehensible], but we don't anymore. I fish Marmour, but it's been two years since I've fished any, I don't know why. All I know is that there is some sort of black sand, maybe oil residues, they come from the power company, so you can't fish Marmour from there until Dbayeh. Last year I've only fished maybe seven or eight fish, I pay 50,000 LBP per trip and all I get are two or three fish One stated: The large quantity of fishermen. They sometimes make trouble. Moderator: So they do them on purpose  |  |
| B11.2. What changes have you noticed over the years?  (Note to moderator: please probe into safety, equipment, pollution, fish stock (plenty of fish or few fish)etc.) | [Note that while the moderator was asking question B11.1 he merged question B11.2 with it]  |  |

## **B12.** What are the factors that positively and negatively influence fishing activities in your area?

(Note to moderator: please probe into problems faced by fishermen in this village, work conditions and welfare)

One stated: No there isn't any factors that influence fishing positively [several agreed]

One stated: Something can be done though, they can make fish farms. Sometimes fish eggs don't survive in the natural habitat that they were laid in, so due to fish farms they can re-place them to somewhere fish egg-friendly, and when the hatch they can bring them back to sea.

One stated: I saw it with my own two eyes, they catch small fish with nets and then throw them at the surface, so fish aren't growing like they should.

One stated: In lebanon we have something that is called Guerguere, which is a net with very small netting, they throw it in and use a light, and take out the fish when they're still very small. A fish that could grow from here to there [the participant most probably did a hand gesture] is getting taken out when it's still small.

One stated: This is a subject that we specialized in at Fishermen Lebanon. Other than global warming, pollution, and trespassing marine property, we see all of those walls and resorts being build up next to shore, and this affects fish culture. Let's not forget that a lot of our beaches in Lebanon are either sand or rock beaches. Rocks are where fish gather, and most of the rocks are near shore, where they build those walls or resorts. We also face reckless fishing

### C. SOCIO-ECONOMIC INDICATORS AT THE LOCAL LEVEL

# C1. How would you describe the current coastal resource conditions in your community?

One stated: The most important thing we have in Lebanon is wind current, in some part you might not have any waste, in other places it might be filled with waste. It all depends on how the current moves the waste

Moderator: What happens then?

One stated: The water becomes troubled

One stated: Pollution and reckless fishing [several agreed]

One stated : Guerguere

One stated : There should be some sort of law enforcement regarding this

matter

One stated: There is a page on Facebook called Sohhit Sayadeen Rmeish, they post on a daily basis what is the length of the fish that fishermen can catch. For example the legal length of Brak [type of fish] is 26 centimeters. Here fishermen catch them when they're maybe ten centimeters long

# C2. What are the top 3 major threats to the health of coastal resources in your community?

One stated: That is the context of reckless fishing and not abiding by the law One stated: There was this video posted by this page of someone that is throwing is net at a depth of ten meters, and it was sent to the Agriculture Municipality that is supposedly responsible for fishing, yet they never took any measures

One stated: The government is very neglecting towards this field of work, because this profession is not even specified, we don't have social security, if god forbids a fisherman needed to go to the hospital, he will pay his year's profit for only one night at the hospital. We need social security. Why won't every fisherman be registered in social security, we need to have our rights preserved, we at least need hospitalization, we face many dangers in our job. I personally have faced life threatening events, no one knows what might

|   | happen. So as a company that is benefiting with millions from this project, how  |
|---|--|
|   | will it compensate for us  |
|   | Moderator: The paper you hold in hand has an email that you can send to          |
|   | whatever question comes to mind, or whatever complaint you might have            |
|   | One stated: All of the fishermen are considered from the poor class, no          |
|   | fisherman can only make a living out of fishing                                  |
| C3. Who do you identify as vulnerable   | One stated : Fishermen and liberal professions, my dad is a carpenter for        |
| in your community?  | example. All local carpenters and blacksmiths are considered poor. They don't    |
|   | have a social security, nor do they have an old age security, and on top of that |
|   | they have to deal with foreign competition                                       |
| C4 Parida Cabina and thousand   | they have to dear with foreign competition                                       |
| C4. Besides fishing, are there any other marine activities available in                 |  |
| this village?   | One stated: Yes, we have sand extractors, they are located in Nahr El-Kalb       |
| (Note to moderatory Plance mucho into heat  | One stated : We have worm collectors   |
| (Note to moderator: Please probe into boat repairing, net making, collecting seashells, | One stated: Salt extraction and sea worm collections don't hurt the sea, there's |
| sand extraction, salt extraction, sea worm  | a certain way they can do those things to not hurt or damage the sea             |
| collection, molluscs or small fish collection, rubbish scavengersetc.)                  |  |
| C4.a. Which activities? Who performs  |  |
| those activities and where?   |  |
| (Note to moderator: Please probe into   |  |
| gender: female vs. male, age groups:  | Not asked  |
| youth vs. adults vs. elderly, nationality   |  |
| groups: Lebanese vs. refugees)  |  |
|   | One stated : No  |
|   | One stated: I have been seeing many female teenagers recently that are getting   |
|   | involved   |
|   | One stated : Are you talking about fishing?                                      |
| C4.b. How women are involved in such  | Moderator: All sort of marine activities   |
| activities?   |  |
|   | One stated: We have diving, canoeing, sailing                                    |
|   | Moderator: Do you have any touristic trips?                                      |
|   | One stated : Yes   |
|   | Moderator: Approximately how many boats are there for tourism?                   |
|   | Several stated : I don't know  |
|   |  |
| C4.c. Which season in a year are these  |  |
| activities performed?   | Not asked  |
|   |  |
|   |  |
|   |  |
|   |  |
| C4.d.1. Do they earn income from  | Made also d  |
| those activities?   | Not asked  |
|   |  |
|   |  |

| C4.d.2. And do they have alternative livelihoods?  | Not asked   |     |          |
|--|---|-----|----------|
| C4.e. Do they have any major problems or sensitivities in community?   | Not asked   |     |          |
| C5.a. What other types of economic activities are available in this village?  (Note to moderator: Please probe into land-based livelihoods like farming, businesses, markets, artisans etc.)   | Not asked   |     |          |
| C5.b. What about those specifically located on the coastline?  (Note to moderator: please probe into beach resorts, hotels, marine tourism by tour operators, diving/surfing schools, retail/rental services of fishing supplies or sea equipmentetc.) | One stated: Yes we have a diving school, and canoeing Moderator: Do you know how many fishermen are there in this area? One stated: Thousands, way too many One stated: Professional fishermen are not that much, but recreational fishers are plenty |     |          |
| C5.c. Can you give estimate shares of each of those economic activities, at the local level?   | Not asked   |     |          |
| C6.1. Do you have any touristic site in this village?  | ☐ Yes ☐ No One stated: As tourism we can say that we have those boat touristic trips One stated: We have diving trips One stated: Trips that go around Nahr El-kalb One stated: We also have fishing trips  |     |          |
| C6.2. If yes, what is it exactly? where is it located and do you have tour operators? Boat trips?  | Not asked   |     |          |
|  |   | Y/N | Location |

| C7. Do you have any of the following in your village? If yes, please describe and indicate the location | g. Nature reserves                  | N |  |
|---|-------------------------------------|---|--|
|   | <b>h.</b> Temples, palaces, castles | N | One stated : Castles we have the castle in Jbeil |
|   | i. Ottoman structures               | N |  |
|   | <b>j.</b> Museums                   | N |  |
|   | <b>k.</b> Religious heritage        | N |  |
|   | <b>I.</b> World Heritage            | N |  |

| C8. Do you have adequate water supplies in your village?  | ☐ Yes ☐ No One stated: Yes we have a big water pressure   |
|---|---|
| C9. What about electricity and waste management services?  (Note to moderator: Please probe on the coastal part of the village as well) | [inaudible they were all laughing] One stated: I think it's the same in all of Lebanon [several agreed] One stated: We dealt with a problem here in Keserwan when the whole waste management issue occurred in Burj Hammoud. We got swamped with waste because it was dealt in an unorganized way. And that waste dump already has a huge negative influence on all generations that will come later on.  Moderator: What was the effect on you? One stated: The water there is always black One stated: You can't even stand One stated: Water there has no longer any life. The dump is full now and there is no more room to dump waste. If this matter isn't treated in a correct way. We have over two million refugees that are dumping their waste in the river. And Lebanon's infrastructure isn't big enough to contain our waste, let along two other millions. There isn't any functional treatment for water, electricity, sewage One stated: Do you think that this project will come back with benefits on the country concerning these maters?  Moderator: The project will bring back revenues, but that concerns the government One stated: The problem is that revenues go straight to the government, so the people won't benefit from them, and I think we can all agree on that One stated: If we talk about this project and its impact on fishermen, just like you said they will no longer be able to fish in certain zones, and the environmental impact might endanger fish culture One stated: I personally think that fishermen won't get affected by the prohibited zones, because no fisherman goes that deep into the sea, he aid that it will be between six and 12 kilometers from shore, no one goes that deep. One stated: We might not reach that deep, but any oil leakage or the building of platforms can endangers our work |
| C10.1. In general, are the roads in your village in good condition?   | ⊠ Yes □ No  |
| C10.2. Are there any public transport services?   |   |
| (Note to moderator: Please probe on the coastal part of the village as well)  |   |

| C11.a.1. What illnesses are most prevalent in your community?  | Several stated : Cancer One stated : Heart diseases One stated : Diabetes   |  |
|--|---|--|
| C11.a.2. And does fishing cause any health hazards?  | One stated : On the contrary, it boosts your health One stated : There are some exceptional cases where maybe a fishhook might get stuck in a man's arm   |  |
| C11.b. Which healthcare facilities are available in your village?  (Note to moderator: Please probe into hospitals, public clinics, mobile clinics, how far they areetc.). | One stated : We have hospitals, clinics Moderator: What is the closest hospital here? One stated : Abou Jaoude Hospital One stated : Saydit Lebanon Jounieh   |  |
| C11.c.1. Are they reliable services?   | One stated: The hospitals that are well known and trusted are far Moderator: Such as? One stated: Bellvue it's in Mansourieh, Hotel Dieux, AUB Moderator: how much time would you need to get there One stated: If there's traffic you need maybe two hours |  |
| C11.c.2. If no, why not?   | Not asked   |  |
| C11.d.1. Do they meet the community healthcare needs?  | ☐ Yes ☐ No One stated: If we wanted to talk about governmental hospitals, no they don't   |  |
| C11.d.2. If no, why not and do you think you need more healthcare facilities in the area?  | Several stated : Yes of course  |  |
| C12. a.1. What about the educational services?   | Not asked   |  |

| C12. a.2. Do you have schools/<br>training centers in your village?  | One stated . Ves they are all available [ell a creed]  |
|--|--|
| (Note to medicate make into the  | One stated: Yes they are all available [all agreed]  |
| (Note to moderator: please probe into the different levels: primary schools, secondary schools, universities and technical schools)      | One stated: Public schools need to be renovated, so that we can put our children in them and not pay our life's work as school fees  |
| C12.b. How do you evaluate the educational levels by age groups (youth, adults and elderly) in your communities?                         | One stated: If we want to talk about this area specifically, the youth are all educated One stated: The rate is high, but you need to see how many people are getting hired in their line of education One stated: The rate decreases when it comes to adults and elderly, but we don't have any illiteracy One stated: The generation before us surely didn't get the education they  |
|  | wanted due to war  |
| C13.1. How do you describe the safety and security conditions in your area?  C13.2. Which parties play the major role(s) in this regard? | One stated: There is safety but there's no law One stated: Crimes do occur but not in big quantities One stated: Law enforcement is practically non-existent at sea because they don't have the right equipment, such as boats, and if equipment were available, they lack maintenance and essentials One stated: There isn't any safety, you feel that safety is only applied in certain cities Moderator: How come? One stated: We have certain places here in Keserwan where safety is available, meanwhile in other places such as Bekaa, it lacks security [inaudible] One stated: There are a lot of people who are wanted and the government knows who they are and where they are, but they keep on roaming free |
| C14. Are there any associations or NGOs in your community (if so what do they do?)   | One stated: Yes, we have Work Vision, Granuble, New Heights Moderator: What do they do? One stated: They do social awareness on illnesses, hygiene, sexual assault, everything related to assaults. They care for helping the children with their education  |
| C15. What problems exist in the community?   | One stated: Financial problems One stated: Economical problems One stated: Lack of job opportunities, and if you do find a job then it would be of low wage. One stated: And if we want to talk about the problems a fisherman faces, then theres is a very low income  COMMUNICATION AND FEEDBACK MECHANISMS  |
| THEME 3:   | COMMONICATION AND FEEDDACK MECHANISMS  |

|  | One stated: The important thing is that this project benefits the entire country,  |
|--|--|
|  | the sea, fishermen, and fish, it shouldn't have any damages, not even a one per    |
|  | cent. It should have a positive effect not a negative effect                       |
|  | One stated: As long as Total brought us in here today, and it cares for our        |
|  | opinions, then I advise it to collaborate with the Agriculture Municipality, and   |
|  | the Fishermen cooperative, to do what's best for the fishermen                     |
|  | One stated: It is very important that they provide us with jobs, if there is going |
|  | to be damages, they should provide job opportunities instead. We can be boat       |
| Q1. What are your most important                           | taxis, if they need people to drive people or things, then they shouldn't bring in |
| information needs in relation to the                       | stangers, they should uses us  |
| upcoming oil exploration activity?                         | One stated: Even though fishermen might not all be competent to work on this       |
|  | project, they can work the things they do know how to do, because they know        |
|  | the sea. Especially that there are some seasons where a fisherman cannot fish,     |
|  | so he would be making use of his time and making money at the same time            |
|  | One stated: Leaving fishermen out of this, Total can provide jobs for              |
|  | Lebanese, maybe working in their gas stations. I see many foreigners that work     |
|  | in the stations  |
|  | One stated: There are some stations that are completely run my Total, and          |
|  | usually the employees are all foreigners   |
|  | One stated: Total can help create an education regarding the idea of a gas         |
|  | station worker, it's not shameful, it just needs a new set of mind                 |
|  |  |
| Q2. How do you like to receive any future project updates? | Two stated . In a meeting similar to this are                                      |
|  | Two stated: In a meeting similar to this one                                       |
|  | One stated: They can create a Facebook page  |
|  |  |
| Q3. Are there any stakeholders that                        |  |
| you would recommend that we talk with?                     | One stated: It would be really good if we could sit down with the CEO or           |
|  | someone from Total, that way we can discuss the current and future situation       |
|  | of the project, and whatever we can help with, we are more than happy to           |
|  | r system and the second state and mappy to   |
|  |  |

| TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON FOCUS GROUPS DISCUSSION GUIDE FOR FISHERMEN / ANGLERS/ FISHING HOUSEHOLDS (WOMEN) |  |                         |            |
|--|--|-------------------------|------------|
| Name of village:   | Bebnin- Al Abdeh   | Date of the discussion: | 22-05-2019 |
| Name(s) of attendees:  |  |                         |            |
| Notes  | Please introduce the oil drilling activities using the BIDs and posters and give the participants an opportunity for questions and answers |                         |            |
| THEME 1 – STAKEHOLDER ENGAGEMENT AND IMPACT ASSESSMENT DEMOGRAPHICS  |  |                         |            |

| Q1. Please introduce the oil drilling activities using the BIDs and posters. Once completed give the participants an opportunity for questions and you provide an answers to their questions as far as possible. If you cannot answer then please take the stakeholders contact details and tell them you will get the answer and get back in contact as soon as possible. |  |
|--|--|
| Q2. Now, do you have questions?  |  |
|  | THEME 2: SOCIO-ECONOMIC OVERVIEW   |
|  | C. DEMOGRAPHICS  |
| A.1.1. What is your name?  |  |
| A.1.2.What is your age?  | Born in 1957 Born in 1960 Born in 1979 Not mentioned. Born in 1970 Born in 1973 Not mentioned. Born in 1963 Born in 1956 |
| A2.1. Are you married?   | Yes Yes Yes Yes Yes Yes Yes  |

|   | Yes  |  |
|---|--|--|
|   | Yes  |  |
|   | Yes  |  |
|   | i es   |  |
|   |  |  |
|   | Seven  |  |
|   | Twelve   |  |
|   | Four   |  |
|   | Fourteen   |  |
| A2.2. If yes, how many kids do you        | Ten  |  |
| have?                                     | Three  |  |
|   | Ten  |  |
|   | Fourteen   |  |
|   | Sixteen  |  |
|   | Sixteen  |  |
|   |  |  |
|   | Bebnin   |  |
| A3.1. Are you from this village?          | Bebnin   |  |
|   |  |  |
| A3.2. How long have you been              |  |  |
| residing in this village?                 |  |  |
| A4. How many people live in the village?  | There are 35000 to 40000 people who live in Abdeh. |  |
|   |  |  |
|   | Fisherman  |  |
|   | Fisherman  |  |
| A5. What is your profession?              | Fisherman  |  |
|   |  |  |
|   |  |  |
|   | B. FISHING ACTIVITIES                              |  |
| B1.1. Are you/ or is anyone in your       | One stated: The people of Bebnin.                  |  |
| household, currently involved in fishing? |  |  |
|   | One stated: Our children.                          |  |
|   |  |  |

| B1.2. What types?   | One stated: All our fishing activities are commercial.   |  |  |
|---|--|--|--|
| (Note to interviewer: please probe into artisanal/traditional, commercial, recreational)          | One stated: Our work barely provides food.   |  |  |
|   | All stated: Wooden boats.  |  |  |
|   | One stated: They are from six to ten meters long.  |  |  |
|   | One stated: We have boats that are up till 15 meters long.   |  |  |
| B2. What type of boats/ powerboats are you using for fishing?                                     | One stated: 20-22 people go on board.  |  |  |
| (Note to moderator: please probe into size of boat, motor/sail, number of fishermen in each boat) | One stated: Sometimes two or three people.   |  |  |
|   | One stated: Seven or eight people go on board.   |  |  |
|   | One stated: It depends on the fishing trip. A padded net fishing method needs three or four people on board. |  |  |
|   | One stated: A shovel needs 15-20 men.  |  |  |
|   | One stated: Shovels.   |  |  |
|   | One stated: Traps.   |  |  |
|   | One stated: Hooks and lines.   |  |  |
|   | One stated: Padded Nets.   |  |  |
| <b>B3.</b> What are the specific fishing gears employed?  | Moderator: What about dynamite?  |  |  |
| (e.g. hook and line, traps, nets, diving gears, dynamite etc)                                     | One stated: Dynamite is banned?  |  |  |
|   | One stated: There is a lot of dynamite.  |  |  |
|   | One stated: You should warn your people, if dynamite is used, it will damage the project.                    |  |  |
|   | Moderator : Explain more to me   |  |  |
|   | (All talk at the same time)  |  |  |

|  | One stated: Let us be clear, my fellow fishermen are trying to warn you of damages that dynamite might cause. However, it is banned.   |  |  |
|--|--|--|--|
|  | One stated: One explosive used to kill the fish while fishing, is enough to demolish this whole building if its as placed here.  |  |  |
|  | One stated: All kinds of fish.   |  |  |
| D. d. What have a fifther  | One stated : Le'os , Bezri, Sardin, Mallifa, Sferna,   |  |  |
| B4.1. What types of fish?  | One stated: Fish is seasonal. Depends on the time and weather.   |  |  |
|  | One stated: What does he know about kinds of fish? Nothing (Sarcastic). To many, anything that swims is fish.  |  |  |
|  | One stated: At the point of the tunnel. One stated: We fish in Al-Heri waters till the Syrian borders. One stated: We fish in the waters facing Al-Madfoun Checkpoint, One stated: It is near Selaata. |  |  |
|  | One stated: We fish at the depth of 120 to 50 meters. It is located four miles away from the shore.  |  |  |
|  | (Here attendees quarrel about the miles, some say it is four miles others claim they are six miles).   |  |  |
|  | Moderator: And those who use hooks?  |  |  |
| B4.2. Where do you go for fishing?  (Note to moderator: please probe into distances in kilometers, near/ far from shore (for anglers in specific), also ask if they fish from the shore) | One stated: We fish at the depth of 200 meters.  |  |  |
|  | One stated: No, it is 350 meters.  |  |  |
|  | One stated: In Al-Abdeh the usage of hooks is very low, while in Al-Mina, Tripoli, fishermen do use hooks a lot.   |  |  |
|  | One stated: Some fishermen sail to six or even twelve miles, and they have special licensed gears.   |  |  |
|  | One stated: I know one of those fishermen, Ahmad Sabra. They contact the marine military operationalists to inform them of their location.   |  |  |
|  | Moderator: Does anyone fish on the shore?  |  |  |
|  | One stated: No one.  |  |  |

|   | One stated: Of course, all land shovels users fish on shore.  One stated: There is another method of fishing on shore, and it needs twelve fishermen to spread the nets and the then pull them out.                |  |  |
|---|--|--|--|
|   |  |  |  |
|   | One stated: We sail to fish around four of five in the morning, and return four or five in the afternoon.  |  |  |
|   | Moderator: No one fishes at noon?  |  |  |
|   | One stated: Some fishermen do.   |  |  |
|   | One stated: It depends. I work on a shovel, my fellow fisherman here fishes with a padded net, he fishes at noon and take a lunch break.   |  |  |
| B5. When do you usually go for fishing?  (Note to moderator: please probe into hour, time of the day and seasons) | One stated: We are all fishermen but each one of us has his own method of fishing. I work on a shovel; I leave in the afternoon and return the next day.   |  |  |
|   | One stated: I fish with a padded net, I spread them four in the, morning and come back the next day.   |  |  |
|   | Moderator: Does your work vary with seasons ?  |  |  |
|   | One stated: Of course, in winter it is different than summer.  |  |  |
|   | One stated: In winter you have two methods of work with the nets, one might spread them in the afternoon and pulls them at eight p.m.; and the other method is to spread them at night and pull them the next day. |  |  |
|   | One stated: On a lucky day, we catch a ton of fish, or 700 to 800 kilos per day.   |  |  |
|   | All agreed.  |  |  |
| B6. How much fish do you catch on an average fishing trip?  | One stated: A shovel's catch is a minimum of seven tons. On usual days it pulls 400 to 500 kilos.  |  |  |
|   | One stated: Now he (the moderator) will think that he is in Mauritania.  (Joking)  |  |  |
|   | One stated: I do not want to talk about others.  |  |  |

One stated: I have been working three months to pay for a debt of 3.100.000 L.L. I didn't even earn a 100.000L.L.

One stated: You might unlucky, but that does not mean others have to be unlucky.

One stated: I did not say that.

One stated: We have a production of 4000 tons per year; this is according to the Ministry of Agriculture. We need 20.000 tons per year to cover the market. So, when we pull 3.000or 4.000 kilos we are forced to import fish from Mauritania, Senegal, or from Egypt.

One stated: And Turkey.

One stated: We have 270 generators (meaning fishing boats). The majority of us pull 20, or 40 kilos per trip. Those who pull hundreds of kilos are other category of fishermen. In Lebanon there are no fish anymore.

Moderator: Why is that?

One stated: Pollution is a reason. Sometimes the reason is the huge number of boats in limited water.

One stated: The Ministry of Agriculture is absent.

One stated: I will tell you why. The Mediterranean Sea contains fish more than Mauritania, but there is not preserving of the Fishery. Sometimes I pull a ton of fish, and I throw it all away as waste; the whole ton! There is no Syndicate for the Fishermen, the Ministry of Agriculture does not support us.

All Stated: We do not preseve it.

One stated: There has been discussions among the Ministry of Agriculture, The Ministry of Defence, and the Monastery of Al-Balamand about us.

#### **B7.** How do you preserve the fish?

(Note to moderator: ice or smoked, other?)

Moderator: They want to buy fish from you?

One stated: The discussions are about the future, where are we heading to. The fish is reproducing in all countries except here, they want to know the reason. There is a document which is still in the Parliament, it is not issued yet. They want to find a way to get big fishing boats for trial. They will try them from Al-Naqoura till al-Abdeh. They want to study the fish in regional waters.

| B8. Does anyone help you with fishing?  (Note to moderator: please probe into who are the crew members if any e.g family members, poorer members of community, refugees) | One stated : Family members.  One stated : People from Bebnin.  One stated : Relatives.  All stated : No refugees help us.  One stated : My children and my nephews help me.  |
|--|---|
| B8.a. If yes, what is their role? How do they exactly help you?  | One stated: They help us with fishing. They pull nets with us.  One stated: They pull nets.   |
| B8.b. How females are involved in fishing? Are there gender differentiated roles?  | One stated: The prepare nets for their husbands.  One stated: Not all women help.  One stated: There is a specific group of females that help with nets.  One stated: There is an association that hires a rate of thirty Syrians to ten Lebanese, and they change their program continuously. The association lets the women prepare nets, and sometimes they sell the nets. |
| B8.c.1. Are there any similar examples in community?   |   |
| B8.c.2. What are the roles of people engaged in fishing in your community?   |   |
| B9. What type of fish do you catch and what do you do with the fish catch?   |   |

|  | One stated : We sell in Al-Mina and Al-Abdeh.   |  |  |
|--|---|--|--|
| B9.a. Are these goods for sale/ Used for own consumption/ For leisure? If for sale, please describe how.                           | One stated: I own a fishery and they bring their catches to me to sell them.  |  |  |
| (through a cooperative, wholesaler, street vendors, how much per kilo)   | One stated : We sell to Beirut.   |  |  |
|  | One stated : I sell by auction.   |  |  |
|  | One stated: I fish, the mayor has a fishery, I take my fish to him and sell them there. I take my fish and sell them wherever I want. I put them in my van and drive to Al-Karantina - Beirut to sell them there. |  |  |
| <b>B9.b.1.</b> How do you advertise your fish?   | One stated: It is the same as the vegetables market. You take your goods to the market and the market advertises them.  |  |  |
|  | One stated: Market owners take a commission of 10%.   |  |  |
|  | One stated: The market i take my fish to, takes a commission of 10%.  |  |  |
| B9.b.2. Who is involved in the marketing and sales process?  |   |  |  |
| (Note to moderator: please probe into the roles of men vs. women in the household)   |   |  |  |
| B9.c. Are there markets available for fishermen/ individuals conducting marine activities to sell their fishes/products/ services? | One stated: There is the fish market in Al-Abdeh, the COOP, and street sellers.   |  |  |
| B9.d.1. Do you/ or does any household member earn any income from fishing?   |   |  |  |
| B9.d.2. If yes, what is its share from the total household income?   | All stated: The total household income is from fishing.   |  |  |

All Stated: No.

One stated: We all inherited the work from our fathers and grandfathers.

Moderator: What is the rate of expenses from your income?

One stated: There are nets that cost 20.000L.L. and nets that cost 5.000L.L.

One stated: If my income is 1.000.000L.L. I pay 250.000L.L. expenses on the nets and deisel.

Moderator: You all agree that quarter of your income is expenses?

All stated: Yes we do.

Moderator: How much is your monthly income?

One stated: It depends on the catch.

### **B9.d.3.** Do you have any alternative livelihood activities that you undertake alongside fishing?

One stated: It is between 250.000L.L. and 500.000L.L.

Moderator: How much does a kilo of fish costs? Especially the kind you catch in large numbers?

One stated: the price is not stable, it varies between 100.000L.L. and 20.000L.L.

One stated: Sometimes we throw the fish away.

Moderator: What about Le'os and Jarbidi?

One stated: A kilo of Le'os costs 40.000L.L.

Moderator: What kind is the most expensive?

One stated: Shrimps, a kilo costs 100.000L.L.

One stated: Sultan, shrimps, and Le'os.

One stated: All kinds are variable, a kilo that costs 100.000L.L. today, costs 40.000L.L. in few months.

| <b>B10.</b> Approximately, how many fishermen are there in your village (as a livelihood or as a recreational activity please specify)?                                | One stated: I have a file, it says that there are 970 families.  Moderator: How many fishermen?  One stated: About 4.000 to 5.000 fishermen.  One stated: 270 generators.  Moderator: Are amateurs included?  One stated: We do not have any amateur,  |
|--|--|
| B11.1. From your experience, what problems at seas are there?  | One stated: Explosives.  One stated: Garbage and waste.  One stated: There is a marine law that bans explosives and guns, but they are being used. The is an absence of the government. If i ask someone to stop using a certain methods, he answers: « Go stop those who catch larger numbers before stopping me ».  Others stated: Garbage and waste.  Moderator: What about the gears? Don't they get damaged? Isn't that a problem?  One stated: The garbage causes damage to our gears.  One stated: Nets get torn because of garbage and we throw them away. |
| B11.2. What changes have you noticed over the years?  (Note to moderator: please probe into safety, equipment, pollution, fish stock (plenty of fish or few fish)etc.) | One stated: The fish stock decreased for sure.  One stated: The reason is the garbage.  One stated: The fish stock decreased about 70%.  One stated: If the government does not protect the sea, the se ais gone. Our sea was the richest sea in the world.  |

|   | Moderator: How could the government protect it?  |  |  |
|---|--|--|--|
|   | One stated: In many ways, it can spread boats, to stop those who use explosives.  One stated: It can protect the sea from dynamite, the shovels, etc  One stated: The camp throws garbage in the river, in winter, the river carries all the garbage to the sea. I spent 4.000.000 L.L. to 5.000.000 L.L. on nets, I spread them in the sea, and pull either fish, or I throw it away. |  |  |
|   |  |  |  |
|   |  |  |  |
| <b>B12.</b> What are the factors that positively and negatively influence fishing activities in your area?      |  |  |  |
| (Note to moderator: please probe into problems faced by fishermen in this village, work conditions and welfare) | All stated : There is nothing positive.  |  |  |
| C. 9  | SOCIO-ECONOMIC INDICATORS AT THE LOCAL LEVEL   |  |  |
| C1. How would you describe the current coastal resource conditions in your community?                           | One stated: The port needs work.   |  |  |
|   | One stated: the port is closed, in winter, the wind and tides carries sand into the port. The shore is filled with garbage.  |  |  |
|   | One stated: It is disgusting.  |  |  |
|   | Moderator: Does the weather affect fishing?  |  |  |
|   | One stated: Yes, in winter you cannot enter the port.  |  |  |
| C2. What are the top 3 major threats to the health of coastal resources in your community?                      | One stated: The port must be deepened and cleaned. All ports in the country are clean except ours, especially the port of Tripoli.   |  |  |
| C3. Who do you identify as vulnerable in your community?  | One stated : The fishermen.  |  |  |
|   | One stated : All the people here are vulnerable.   |  |  |
|   | One stated: Nets that cost 3.000.000 L.L. are vulnerable, they get damaged.  |  |  |
|   | One stated: We borrow money to work, and to fix our gears. We used to spend from our income on fixing, not it is not enough. We borrow the money; we go to Beirut to borrow 3.000.000L.L. and 4.000.000L.L.  |  |  |
|   | One stated : All fishermen are in debt.  |  |  |

One stated: All the people of Bebnin are vulnerable. One stated: The fishermen are the most vulnerable. One stated: Who said that? You, specifically, are doing well. One stated: This is another subject, my kids are employees. One stated: The fisherman in Bebnin is spending time in the casino. Some of them gamble, and the people of Kaslik do not gamble. All chalet owners are from Bebnin. The situation is very good. One stated: With what money are they gambling? One stated: I do not know. C4. Besides fishing, are there any other marine activities available in One stated: When a net is damaged, some buy new ones and others give them this village? to the women for repairing. When it comes to boat repairing, there are workers who repair boats. (Note to moderator: Please probe into boat repairing, net making, collecting seashells, sand extraction, salt extraction, sea worm All stated: We do not have any other activities. collection, molluscs or small fish collection, rubbish scavengers...etc.) C4.a. Which activities? Who performs those activities and where? (Note to moderator: Please probe into gender: female vs. male, age groups: youth vs. adults vs. elderly, nationality groups: Lebanese vs. refugees) One stated: Yes they are involved. One stated: The woman works with everything. Moderator: What about youth? Are they involved? One stated: Children start helping from the age of eleven. C4.b. How women are involved in such activities? Moderator: The percentage of children? One stated: 10%. Moderator: And youth from the ages 18 to 24? One stated: 150%.

|  | Moderator : And the eldely ?  |  |  |
|--|---|--|--|
|  | One stated: 15% to 20%.   |  |  |
|  |   |  |  |
| C4.c. Which season in a year are these activities performed?   |   |  |  |
| C4.d.1. Do they earn income from those activities?   | One stated: The wives do not earn anything, but the stranger women are paid by the net.   |  |  |
| C4.d.2. And do they have alternative livelihoods?  |   |  |  |
| C4.e. Do they have any major problems or sensitivities in community?   | All stated : No.  One stated : Most women work from their homes.  |  |  |
| C5.a. What other types of economic activities are available in this village?  (Note to moderator: Please probe into land-based livelihoods like farming, businesses, markets, artisans etc.) | One stated: We have agriculture, industries, and other works.  Moderator: Industries like what?  One stated: Furniture.  One stated: We have traders. But add all those together, they are not as much as the fishermen.  Moderator: What about artisans?  One stated: Yes we have artisans, they design trays and baskets. |  |  |

|   | One stated : Nothing.   |     |          |  |
|---|---|-----|----------|--|
| C5.b. What about those specifically located on the coastline?  (Note to moderator: please probe into beach resorts, hotels, marine tourism by tour operators, diving/surfing schools, retail/rental services of fishing supplies or | is absent.  |     |          |  |
|   | Moderator: What is the percentage of fishermen among these?           |     |          |  |
| sea equipmentetc.)  | One stated: Here it is 60% to 65%, and in the whole region it is 45%. |     |          |  |
|   | All agree.  |     |          |  |
| C5.c. Can you give estimate shares of each of those economic activities, at the local level?  |   |     |          |  |
| C6.1. Do you have any touristic site in this village?   | ☐ Yes ☑ No  |     |          |  |
| C6.2. If yes, what is it exactly? where is it located and do you have tour operators? Boat trips?   |   |     |          |  |
|   |   | Y/N | Location |  |
| C7. Do you have any of the following in your village? If yes, please describe and indicate the location   | <b>m.</b> Nature reserves   | No. |          |  |
|   | <b>n.</b> Temples, palaces, castles                                   | No. |          |  |

|   | o. Ottoman structures   | No.  |                             |
|---|---|------|-----------------------------|
|   | <b>p.</b> Museums   | No.  |                             |
|   | <b>q.</b> Religious heritage  | Yes. | There are some old mosques. |
|   | <b>r.</b> World Heritage  | No   |                             |
| C8. Do you have adequate water supplies in your village?  | ⊠ Yes □ No  |      |                             |
| C9. What about electricity and waste management services?  (Note to moderator: Please probe on the coastal part of the village as well) | One stated: The electricity is all illegal.  One stated: The waste management is fine. The municipality is responsible for it.  One stated: No one collects the garbage on the shore. |      |                             |

| C10.1. In general, are the roads in your village in good condition?  |  |
|--|--|
| C10.2. Are there any public transport services?  | One stated : No.   |
| (Note to moderator: Please probe on the  | Moderator: How do you go to Beirut?                      |
| coastal part of the village as well)   | One stated: We go in our car or we rent a bus.           |
|  | All stated : Cancer.                                     |
| C11.a.1. What illnesses are most prevalent in your community?  | One stated : Cancer is spreading the entire Middle East. |
| C11.a.2. And does fishing cause any health hazards?  | One stated : Not at all.                                 |
| C11.b. Which healthcare facilities are available in your village?  (Note to moderator: Please probe into hospitals, public clinics, mobile clinics, how far they areetc.). | All stated : We have public clinics.                     |
| C11.c.1. Are they reliable services?   | ⊠ Yes □ No   |
| C11.c.2. If no, why not?   |  |
| C11.d.1. Do they meet the community healthcare needs?  | ☑ Yes □ No   |

| C11.d.2. If no, why not and do you think you need more healthcare facilities in the area?   | All stated: Yes we need more healthcare facilities.  One stated: We should at least have a hospital.  |  |
|---|---|--|
| C12. a.1. What about the educational services?  |   |  |
| C12. a.2. Do you have schools/<br>training centers in your village?<br>(Note to moderator: please probe into the<br>different levels: primary schools, secondary<br>schools, universities and technical<br>schools) | One stated: We have schools.  One stated: The largest compound of schools is in Bebnin. It was built by Saad Al-hariri God rest his soul.  One stated: But the parents' committees steal all the money instead of enhancing the schools.  One stated: It is a public schools compound better than those of Europe. It was |  |
| C12.b. How do you evaluate the educational levels by age groups (youth, adults and elderly) in your communities?  | One stated: The biggest percentage on educated people here. People have many skills.  One stated: There are educated people but they are unemployed. Some fishermen are educated but have no jobs.  |  |
| C13.1. How do you describe the safety and security conditions in your area?   | One stated : There is no security in this country at all.   |  |
| C13.2. Which parties play the major role(s) in this regard?   | One stated : The Lebanese Armed Forces.  One stated : People with power.  |  |
| C14. Are there any associations or NGOs in your community (if so what do they do?)  | One stated : Yes we have.   |  |

| C15. What problems exist in the community?   | All stated : Poverty.   |  |  |
|--|---|--|--|
| THEME 3:   | THEME 3: COMMUNICATION AND FEEDBACK MECHANISMS                                |  |  |
| Q1. What are your most important information needs in relation to the upcoming oil exploration activity? | One stated : We wish you all the best. We hope Oil Production starts          |  |  |
|  | One stated : Any way you find appropriate.                                    |  |  |
| Q2. How do you like to receive any future project updates?   | One stated : Through the municipality and telephones.                         |  |  |
|  | One stated: We wish you all the best, and we hop ewe flourish at least to pay |  |  |
|  | our debts.  |  |  |
| Q3. Are there any stakeholders that you would recommend that we talk with?                               |   |  |  |

# TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON FOCUS GROUPS DISCUSSION GUIDE FOR FISHERMEN / ANGLERS/ FISHING HOUSEHOLDS (WOMEN)

|                       | T  |                         | _<br>T                       |
|-----------------------|--|-------------------------|------------------------------|
| Name of village:      | Chekka   | Date of the discussion: | 22/05/2019                   |
| Name(s) of attendees: |  |                         |                              |
| Notes                 | Please introduce the oil drilling active opportunity for questions and answer. |                         | and give the participants an |
| THEME 1 DEMOGRAPHICS  | - STAKEHOLDER ENGAGEMENT A   | IND IMPACT ASSESSMENT   |                              |

| Q1. Please introduce the oil drilling activities using the BIDs and posters. Once completed give the participants an opportunity for questions and you provide an answers to their questions as far as possible. If you cannot answer then please take the stakeholders contact details and tell them you will get the answer and get back in contact as soon as possible. |   |      |
|--|---|------|
| Q2. Now, do you have questions?  |   |      |
|  | THEME 2: SOCIO-ECONOMIC   |      |
| A.1.1. What is your name?  | D. DEMOGRAPI  | nics |
| A.1.2.What is your age?  | <ul><li>- 57 years old.</li><li>44 years old.</li><li>49 years old.</li><li>50 years old.</li><li>65 years old.</li><li>47 years old.</li></ul> |      |

|                                    | 43 years old.                    |
|------------------------------------|----------------------------------|
|                                    | 57 Years old                     |
|                                    | 71 years old.                    |
|                                    |                                  |
|                                    | Yes                              |
|                                    | Yes                              |
|                                    | Yes.                             |
|                                    | Yes.                             |
| A2.1. Are you married?             | Yes.                             |
|                                    | No.                              |
|                                    | Yes.                             |
|                                    | Yes.                             |
|                                    | Yes                              |
|                                    | One stated Two                   |
|                                    | One stated I have two daughters. |
|                                    | One stated Two.                  |
| A2.2. If yes, how many kids do you | One stated I have one son.       |
| have?                              | One stated Three                 |
|                                    | One stated Three.                |
|                                    | One stated Two.                  |
|                                    | One stated Four.                 |
|                                    | One stated Yes                   |
| A3.1. Are you from this village?   | One stated Yes.                  |
|                                    | One stated No.                   |

|  | One stated Yes.  |  |
|--|--|--|
|  | One stated Yes   |  |
|  | One stated Yes, I am from El-Heri, same as Chekka, they are one.   |  |
|  | One stated Yes   |  |
|  | One stated: A long time ago.   |  |
| A3.2. How long have you been residing in this village?                               | One stated: Always been here.  |  |
|  | One stated: I live here since fifty years ago.   |  |
|  | One stated: Around 10000 people live here.   |  |
| A4. How many people live in the  | One stated: Around 4000 people.  |  |
| village?   | One stated: The number of people who live in Chekka is 20.000, but those who are originally from Chekka are about 4000 people. |  |
|  | Fisherman  |  |
|  | Fisherman.   |  |
|  | Employee in Al-Bahry Company.  |  |
| AE What is your profession?  | Fisherman.   |  |
| A5. What is your profession?   | Fisherman.   |  |
|  | E. FISHING ACTIVITIES  |  |
|  |  |  |
| <b>B1.1.</b> Are you/ or is anyone in your household, currently involved in fishing? | One stated: We sail two or three people together.  |  |
|  | One stated: No one sails alone.  |  |
|  | One stated: I sail alone.  |  |

|   | One stated: A worker – helper sails with me.  |
|---|---|
| B1.2. What types?  (Note to interviewer: please probe into artisanal/traditional, commercial, recreational) | One stated: The majority is commercial fishing.  One stated: We are all old fishermen with very modest social situation, we fish to live.   |
| B2. What type of boats/ powerboats  | One stated: We all use wooden fishing boats.  |
| are you using for fishing?  (Note to moderator: please probe into size                                      | One stated: All the boats are primitive because the government does not build ports for us, and does not offer facilities to us.  |
| of boat, motor/sail, number of fishermen in each boat)  | One stated: We have been literally crying for three months demanding ports but no one listenes, we need 10 men to pull us in and out of the shore.  |
|   | One stated: The size of boat is an average of seven to ten meters.  |
|   | One stated: Nets.   |
| B3. What are the specific fishing gears employed?   | One stated: Fishing Hooks.  |
| (e.g. hook and line, traps, nets, diving gears, dynamite etc)   | One stated: Traps.  |
|   | One stated: We do not dive.   |
|   | One stated: We do not use dynamite.   |
|   | One stated: There are various kinds of fish like (Le'os and Jarbidi )   |
|   | One stated: Manfakh (known as the Blowfish), the uncommercial type (They all laugh).  |
| B4.1. What types of fish?   | One stated: This type of fish is a foreign on and we are not sure where it originates from. It is a very ha]rmful fish, it has no teeth, it has cutter jaw. This fish cuts the net, and it eats the fish in the net. It is very dangerous. And it cannot be sold. |
|   | One stated: It eats fish eggs of all kinds and so it cut fish eggs from us.   |
|   | One stated: Chekka was famous for its shrimps, now it is not found.   |

|  | One stated: Sea Urchins, they are not found anymore because of the blowfish and the random fishing. Imagine that the blowfish bit a can of Pepsi put by two amateur divers.  |
|--|--|
|  | One stated: We fish in our region which is from Sel'ata to Anfeh.  |
| B4.2. Where do you go for fishing?  (Note to moderator: please probe into distances in kilometers, near/ far from shore (for anglers in specific), also ask if they fish from the shore) | One stated: Sometimes we reach Al-Barbara and Al-Batroun.  One stated: There are people from al-Abdeh fishing in our waters too. And at other times we expand too, we follow the fish we go farther than the usual.  One stated: We go as far as the armed forces allows us, and that is 12  Kilometers. But now the armed forces forbid us to go that far, at the end of six miles they are ordering us to retreat. |
|  | One stated: Sometimes we fish from the shore, at specific times like these days, in winter we go deep. In days like these we fish by swimming.  One stated: You need to know that each fish has its own waters, and we got to follow the fish.   |
| B5. When do you usually go for fishing?  (Note to moderator: please probe into hour, time of the day and seasons)  | One stated: It depends on the good weather and it is mostly in the very early mornings, around three in the morning.   |
|  | One stated: The fishers are devided to two groups, a group that sails at three in the morning and sails back around seven or eight in the morning; and another group that sails during the afternoon, they leave at six p.m. and return six a.m.   |
|  | One stated: Each fish has its own time. There is what is called the morning traps and the evening traps. (fishing expressions).  |
|  | One stated: These timelines are related to seasons, they differ in summer and winter, and so it is best to say that we follow the sunrise, when the sun rises, we start, no matter the season.   |
|  | One stated: The fish move during sunrise and during sunset.  |
| B6. How much fish do you catch on an average fishing trip?   | One stated: Sometimes you catch a kilo, sometimes it is five kilos, and very very rarely, and if you are lucky you catch ten kilos per fishing trip.   |
|  |  |

|  | One stated: But these days are very bad and we are barely catching, we do not allow our children to go fishing because to say it bluntly, it is a very poor business.  One stated: Fishery in Lebanon is very poor, the low shores of our coast caused the number of fish to deccrease. Five years ago, we did not need to sail 500 meters to fish. Today there are electric machines that fish at 450 – 500 meters, there are waters that do contain fish. |
|--|---|
|  | One stated: We have nets to catch a ton, we have what it takes, there just has to be fish.  |
|  | (They all talk at the same time)  |
|  | One stated: We sell it immediately.   |
| B7. How do you preserve the fish?  (Note to moderator: ice or smoked, other?)          | One stated: The fresh fish is sold immediately because it is of little amounts.   |
|  | One stated: We do not freeze. We sell within an hour of fishing.  |
|  | One stated: My brother.   |
|  | One stated: My brother.   |
| B8. Does anyone help you with fishing?   | One stated: My brother in law.  |
| (Note to moderator: please probe into who  | One stated: Anyone available hops in to help.   |
| are the crew members if any e.g family members, poorer members of community, refugees) | One stated: My brother.   |
|  | One stated: My son and sometimes Mr. Fadi Kfoury.   |
|  | One stated: Workers or refugees ask for money if they want to help you, they ask for a minimum of 10.000 L.L. or 20.000 L.L., and we are not willing to pay.  |
| B8.a. If yes, what is their role? How do they exactly help you?                        |   |
|  |   |

| B8.b. How females are involved in fishing? Are there gender differentiated roles? | One stated: My wife helps in throwing the net, I taught her so.  One stated: In Al-Abde, women are more involved in the work, they help in resewing the nets, and throwing the nets, and also in cleaning nets whereas here we do not involve them as much.  One stated: My wife gives me money to buy my tools, I do not have enough money. (again laughs, sarcastic talk) |
|---|---|
| B8.c.1. Are there any similar examples in community?                              |   |
| B8.c.2. What are the roles of people engaged in fishing in your community?        |   |
| B9. What type of fish do you catch and what do you do with the fish catch?        | One stated: We sell the fish we catch.  |
|   | One stated: There are times when each one of us catches a small amount of fish, here we group them all and lit the BBQ for our own consumption.  One stated: If the catch is high, we sell in two places, first in Anfe Square, the second in Al-Mina Square in Tripoli.  |
| vendors, now much per kilo)   | One stated: I sell in Tripoli too.  One stated: Some women come and buy fom us on the spot. We sell to our neighbors.  One stated: The price of one kilo varies from 10.000L.L. to 30.000 L.L.  One stated: Ghobbos, Abu Chawke, and Marmour (kinds of local fish) are sold for 10.000 L.L. per kilo.  One stated: Sferna and Jarbidi are sold for 20.000 L.L. per kilo.    |

|  | One stated: Sultan, Ghazel, Bouraa are sold for 30.000 L.L. per kilo   |
|--|--|
|  |  |
| <b>B9.b.1.</b> How do you advertise your fish?   | One stated: We present them in the squares, each kind seperate from the other.   |
| B9.b.2. Who is involved in the marketing and sales process?  |  |
| (Note to moderator: please probe into the roles of men vs. women in the household)   | One stated: No one helps us.   |
| B9.c. Are there markets available for fishermen/ individuals conducting marine activities to sell their fishes/products/ services? | One stated: There are markets available but there is no fish.  |
| B9.d.1. Do you/ or does any household member earn any income from fishing?   | □ Yes □ No   |
|  | One stated: It depends on the amount of fish we catch per trip.  |
|  | One stated: Some months we make 500.000 L.L. per month, other months we make 1.000.000 per month.  |
|  | One stated: On very rare times, we make 2.000.000 L.L. per month.  |
| B9.d.2. If yes, what is its share from the total household income?   | One stated: The share is more than 50-50. The fishing make us money more than the other jobs.  |
|  | One stated: The problem is that the tools are getting more and more expensive, and the generators too, and yet the fish is sold at the same price. |
|  | One stated: One kilo of net was priced five USD now it cots us 12 USD.   |

|   | One stated: We all have alternative work.   |
|---|---|
| <b>B9.d.3.</b> Do you have any alternative livelihood activities that you undertake alongside fishing?                                  | One stated: I do not work something else but i work double time, i go two fishing trips per 24 hours.   |
| <b>B10.</b> Approximately, how many fishermen are there in your village (as a livelihood or as a recreational activity please specify)? | One stated: Around 40 to 50 fishermen, and 30 fishing boats.  One stated: There is one touristic boat in our waters.  |
|   | One stated: We have no protection from the government.  |
|   | One stated: Random fishing.   |
|   | One stated: Non-abiding of laws.  |
|   | One stated: Plastic Bags are the biggest threat to the sea. Absence of appropriate ports.   |
|   | One stated: Al-Manfakh (Blowfish) is a present harm to the sea.   |
|   | One stated: The feul pollution on the surface of the water.   |
| <b>B11.1.</b> From your experience, what problems at seas are there?  | One stated: There are ships that carry fuel, they dock in Jounieh, and the staff washes the generators on deck, sp the wind carries all the fuel discharge to the shores.   |
| problems at seas are there!   | One stated: The government does not take good care of the fisherman, it did not take one single step towards helping us. For example, instead of seven meters I can build a boat of 10 to 15 meters, and catch more, but, where would i put it, there are no appropriate places to dock it. |
|   | One stated: Chekka today is very weak in fishing because it has become an industrial city. Some people are using a trap and night light, this is illegal and yet no one is stopping them.   |
|   | One stated: This illegal kind of trap is thrown into the sea for six and eight months, it does not get pulled, and so in times like the present, it is the season of eggs ovulating, and they pull it all.  |
|   | One stated: There is also all the shovels, they take away everything.   |

|  | Γ   |
|--|---|
|  | One stated: We simply need a law for fishing. That's it. The law is the solution even if it harmed us we are willing to abide with it.  |
| B11.2. What changes have you noticed over the years?  (Note to moderator: please probe into safety, equipment, pollution, fish stock (plenty of fish or few fish)etc.)   | One stated: Five years ago we had sea urchins, it disappeared. One used to see fish swimming in the shores, it disappeared.  One stated: We had seagrass in our waters, it disappeared too. This is due to pollution.  One stated: The result is the disappearance of certain kinds of fish, of seagrass, and the appearance of foreign harmful kinds of fish in our waters. In five years of time we lost the good and gained the bad.  One stated: A while ago Issam was bit by a Lionfish and he barely made it to the hospital. We never had this kind of fish in our waters. |
|  | One stated: The government rushes to help the farmers whose harvest is not spent, it also, for example, enhances the kid of wheat they plant, the farmer is looked upon by the government, the government cares about the farmer.  One stated: In all countries, if a certain kind of fish is beginning to vanish, the government helps in providing other kinds, or in getting eggs of this certain kind. Our government has no Fishery word in its agenda.  (other examples of farmers' help by government)   |
| B12. What are the factors that positively and negatively influence fishing activities in your area?  (Note to moderator: please probe into problems faced by fishermen in this village, work conditions and welfare) | One stated: The absent law is the only positive thing. Everything is negative when it comes to fishing.   |
| C. Socio-Economic Indicators at  | the Local Level   |
| C1. How would you describe the current coastal resource conditions in your community?  | One stated: The conditions are all bad.   |
| C2. What are the top 3 major threats to the health of coastal resources in your community?   | One stated: Random Fishing.  One stated: Pollution.  One stated: High prices of tools.  |

|  | For example, the feathers and blood discharged by Hawa Chicken factory (Lebanese poultry company), goes all into the sea.  (Fisherman showing photos of polluted river to moderator).      |
|--|--|
|  | One stated: The fisherman is the weakest link in the lebanese community. The reason is the absence of law and if the law exists, like that of supporting the fisherman, it is not applied. |
| C3. Who do you identify as vulnerable in your community?   | One stated: The syndicate used to provide fishermen with new updated tools, since four years ago till today we are receiving nothing.  |
|  | One stated: No facilitated loans to the Fishrmen.  |
|  |  |
|  | One stated: One touristic boat.  |
|  | One stated: We fix our own boats.  |
| C4. Besides fishing, are there any other marine activities available in  | One stated: We buy and make our own nets.  |
| this village?  (Note to moderator: Please probe into boat  | One stated: No one collects sea shells anymore.  |
| repairing, net making, collecting seashells, sand extraction, salt extraction, sea worm collection, molluscs or small fish collection, rubbish scavengersetc.) | One stated: Anfeh is famous for the salt ponds, but today a truck full of salt coming from Egypt costs the same as one salt pond. They prefer getting salt from abroad.                    |
|  | One stated: Sea worms disappeared too due to pollution.  |
| C4.a. Which activities? Who performs   |  |
| those activities and where?  |  |
| (Note to moderator: Please probe into gender: female vs. male, age groups: youth vs. adults vs. elderly, nationality groups: Lebanese vs. refugees)            |  |
| C4.b. How women are involved in such activities?   | One stated: One women in our region, in other places yes there are more.   |

| C4.c. Which season in a year are these activities performed?  |   |
|---|---|
| C4.d.1. Do they earn income from those activities?  | All stated : No   |
| C4.d.2. And do they have alternative livelihoods?   |   |
| C4.e. Do they have any major problems or sensitivities in community?  |   |
| C5.a. What other types of economic activities are available in this village?  | One stated: It is an industrial region that contains cement factories, Lime labs, sugar manufacturers, and gypsum factories.                                      |
| (Note to moderator: Please probe into land-<br>based livelihoods like farming, businesses,<br>markets, artisans etc.)   | One stated: Agriculture forms one percent of the region's economy, it was in the past when Chekka was about agriculture and fishermen.                            |
| C5.b. What about those specifically located on the coastline?   | One stated: There are beaches, St. Francois, Crystal Blue, Selena. They are a   |
| (Note to moderator: please probe into beach resorts, hotels, marine tourism by tour operators, diving/surfing schools, retail/rental services of fishing supplies or sea equipmentetc.) | one star rates beaches.  One stated: There is a diving teacher, Mr. David Fares, he plans on diving trips and takes people with him. He gives licenses and so on. |
| C5.c. Can you give estimate shares of each of those economic activities, at the local level?  | Marine – 10 %  Marine – two percent.  Factories –   |
|   | (They all talk at the same time)  |

| C6.1. Do you have any touristic site in this village?   | □ Yes □ No   |     |   |
|---|--|-----|---|
| C6.2. If yes, what is it exactly? where is it located and do you have tour operators? Boat trips?       | One stated: One person operates tours during the summer. |     |   |
|   |  | Y/N | Location  |
| C7. Do you have any of the following in your village? If yes, please describe and indicate the location | <b>s.</b> Nature reserves                                | No  |   |
|   | <b>t.</b> Temples, palaces, castles                      | No  |   |
|   | <b>u.</b> Ottoman structures                             | No  | (German specialists are expected to arrive to dig for a hidden structure and no one is yet sure what it is) |
|   | v. Museums   | No  |   |

|   | <b>w.</b> Religious heritage  | No |  |
|---|---|----|--|
|   | <b>x.</b> World Heritage  | No |  |
| C8. Do you have adequate water supplies in your village?  | ☐ Yes ☐ No  |    |  |
| C9. What about electricity and waste management services?  (Note to moderator: Please probe on the coastal part of the village as well) | One stated: Regarding electricity, we are like the rest of Lebanon, but when it comes to waste, we have 99% applicance of Waste Sorting.  |    |  |
| C10.1. In general, are the roads in your village in good condition?   | ☐ Yes ☐ No  |    |  |
| C10.2. Are there any public transport services?  (Note to moderator: Please probe on the coastal part of the village as well)           | One stated: No, people use privates taxis.  |    |  |
| C11.a.1. What illnesses are most prevalent in your community?   | One stated: Lung Cancer, caused by the pollution of factories.  One stated: There was an (Eternique) (Fake Ceiling) Factory in Chekka some time ago, the factory's pipes are still on the ground in the sun, visible to everyone, the factory's main material is eteriant, it causes cancer after twenty years of exposure to it. |    |  |

| C11.a.2. And does fishing cause any health hazards?   | One stated: Fishing is what makes you healthy.   |  |  |  |
|---|--|--|--|--|
| C11.b. Which healthcare facilities are available in your village?   | One stated: They started building a hospital but did not complete it till now.   |  |  |  |
| (Note to moderator: Please probe into hospitals, public clinics, mobile clinics, how far they areetc.).   | One stated: We have a public clinic but it is not for free, and we have private clinics.   |  |  |  |
| C11.c.1. Are they reliable services?  | □ Yes □ No   |  |  |  |
| C11.c.2. If no, why not?  | One stated: If the health situation is urgent, we go to hospitals like Hakyal Hospital, Al-koura Hospital, Batroun Hosital etc.              |  |  |  |
| C11.d.1. Do they meet the community healthcare needs?   | □ Yes □ No   |  |  |  |
| C11.d.2. If no, why not and do you think you need more healthcare facilities in the area?   | One stated: We do not have healthcare insurance, for example, if we make 2.000.000 L.L. per month we spend them in 15 minutes in a hospital. |  |  |  |
| C12. a.1. What about the educational services?  | One stated: We have public schools, private schools, and one private university the USEC.  One stated: We have one vocational school too.    |  |  |  |
| C12. a.2. Do you have schools/<br>training centers in your village?<br>(Note to moderator: please probe into the<br>different levels: primary schools, secondary<br>schools, universities and technical<br>schools) | One stated: There are primary schools and secondary schools and technical, everything is available.  |  |  |  |

| C12.b. How do you evaluate the educational levels by age groups (youth, adults and elderly) in your communities? | One stated: The new schools' educational levels are very good, but the old ones not so good.            |  |  |
|--|---|--|--|
|  | One stated: Elderly, very bad levels.   |  |  |
|  | One stated: Adults, medium levels, it was a time of war.  |  |  |
|  | One stated: Youth, very good levels.  |  |  |
| C13.1. How do you describe the safety and security conditions in your area?                                      | One stated: They are very good.   |  |  |
| C13.2. Which parties play the major role(s) in this regard?  | One stated: The Darak (local police), and the armed forces, and the Municipality.                       |  |  |
| C14. Are there any associations or NGOs in your community (if so what do they do?)                               | One stated: There are many associations.  |  |  |
|  | One stated: No we do not have, there is only our association the Fishermen's Coop.                      |  |  |
|  | One stated: There is a charity organization that help people in paying electricity and generator bills. |  |  |
|  | One stated: The economic situation.   |  |  |
|  | One stated: The financial problems.   |  |  |
| C15. What problems exist in the community?   | One stated: Healthcare.   |  |  |
|  | A One stated: bsence of a hospital in our area.   |  |  |
|  | (They all talk about the hardships of being treated in a far hospital).                                 |  |  |
| THEME 3:   | COMMUNICATION AND FEEDBACK MECHANISMS   |  |  |

| Q1. What are your most important information needs in relation to the upcoming oil exploration activity? | One stated: If the activity proves the existence of petrol, and if it affected our waters and fishing acitivities, we need compensation.  One stated: Everything is already against us, so in case a good thing happened and petrol was found, remember the fishermen. |  |  |
|--|--|--|--|
| apering on exploration activity:   | One stated: The sea is our life, so if work opportunities arise the people of the village are rightful for them, we have educated young men too.  One stated: Let the locals be the priority.  |  |  |
|  | one stated. Let the focule be the priority.  |  |  |
|  | One stated: Through seminars like this one.  |  |  |
| Q2. How do you like to receive any future project updates?   | One stated: Through the internet too, we will always check the email you provided for us.  |  |  |
|  | We need to have rights to these contracts too.   |  |  |
|  | One stated: In chekka there is a Con who manages the ships' movements according to his moods. He is known as a (Pilot).  |  |  |
|  | One stated: The (Pilot) issue gets all the benifits from the ships.  |  |  |
| Q3. Are there any stakeholders that you would recommend that we talk with?                               | One stated: We want TOTAL to know that we are ready with our boats if they need help.  |  |  |
|  | ADDITIONAL NOTES   |  |  |

## TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON FOCUS GROUPS DISCUSSION GUIDE FOR FISHERMEN / ANGLERS/ FISHING HOUSEHOLDS (WOMEN)

| Name of village:  | Byblos  | Date of the discussion: | 23/5/2019                   |
|---|---|-------------------------|-----------------------------|
| Name(s) of attendees:   |   |                         |                             |
| Notes   | Please introduce the oil drilling activity     opportunity for questions and answer |                         | nd give the participants an |
| THEME 1 DEMOGRAPHICS  | – STAKEHOLDER ENGAGEMENT A  | ND IMPACT ASSESSMENT    |                             |
| Q1. Please introduce the oil drilling activities using the BIDs and posters. Once completed give the participants an opportunity for questions and you provide an answers to their questions as far as possible. If you cannot answer then please take the stakeholders contact details and tell them you will get the answer and get back in contact as soon as possible.  Q2. Now, do you have questions? |   |                         |                             |
|   |   |                         |                             |
| THEME 2: SOCIO-ECONOMIC OVERVIEW  F. DEMOGRAPHICS   |   |                         |                             |
| A.1.1. What is your name?   |   |                         |                             |
| A.1.2.What is your age?   | 60<br>49<br>65  |                         |                             |

|  | Age not disclosed  |
|--|--|
|  | 70   |
|  | 65   |
| A2.1. Are you married?   | All of them are married  |
|  | Three daughters  |
|  | No children  |
| A2.2. If yes, how many kids do you   | Two children; a son and a daughter   |
| have?  | Two daughters  |
|  | Four children  |
|  | Two children   |
| A3.1. Are you from this village?   | None. All just residents.  |
| A3.2. How long have you been residing in this village?                                   | Not answered.  |
| A4. How many people live in the village?   |  |
|  | All of them are currently fisherman  |
| A5. What is your profession?   | Two are retired soldiers.  |
|  | B. FISHING ACTIVITIES  |
|  | One stated: My brother and father were both involved, but my father passed   |
| B1.1. Are you/ or is anyone in your  | away.  |
| household, currently involved in   | Moderator: But mainly all of you are the only members of the family involved   |
| fishing?   | in fishing?  |
|  | All stated: Yes  |
|  |  |
|  | Moderator: You all fish to make a living or is just a hobby?   |
|  | Moderator : You all fish to make a living or is just a hobby ?  One stated : To eat and make a living.   |
|  | One stated: To eat and make a living.  Moderator: What types of boats do you own?  |
|  | One stated: To eat and make a living.  |
|  | One stated: To eat and make a living.  Moderator: What types of boats do you own?  |
| B1.2. What types?  | One stated: To eat and make a living.  Moderator: What types of boats do you own?  One stated: I have a boat that is about 7 meters long. Around seven to eight people fit in it.  One stated: I also own a seven meter long boat.   |
| (Note to interviewer: please probe into  | One stated: To eat and make a living.  Moderator: What types of boats do you own?  One stated: I have a boat that is about 7 meters long. Around seven to eight people fit in it.  One stated: I also own a seven meter long boat.  Moderator: it also fits the same amount of people?   |
| (Note to interviewer: please probe into artisanal/traditional, commercial,               | One stated: To eat and make a living.  Moderator: What types of boats do you own?  One stated: I have a boat that is about 7 meters long. Around seven to eight people fit in it.  One stated: I also own a seven meter long boat.  Moderator: it also fits the same amount of people?  One Stated: Yes. We all have the same type of boats. They only differ in   |
| (Note to interviewer: please probe into  | One stated: To eat and make a living.  Moderator: What types of boats do you own?  One stated: I have a boat that is about 7 meters long. Around seven to eight people fit in it.  One stated: I also own a seven meter long boat.  Moderator: it also fits the same amount of people?  One Stated: Yes. We all have the same type of boats. They only differ in lenght.   |
| (Note to interviewer: please probe into artisanal/traditional, commercial,               | One stated: To eat and make a living.  Moderator: What types of boats do you own?  One stated: I have a boat that is about 7 meters long. Around seven to eight people fit in it.  One stated: I also own a seven meter long boat.  Moderator: it also fits the same amount of people?  One Stated: Yes. We all have the same type of boats. They only differ in lenght.  One staated: It depends on what they use it for. In terms of touristic cuises or   |
| (Note to interviewer: please probe into artisanal/traditional, commercial,               | One stated: To eat and make a living.  Moderator: What types of boats do you own?  One stated: I have a boat that is about 7 meters long. Around seven to eight people fit in it.  One stated: I also own a seven meter long boat.  Moderator: it also fits the same amount of people?  One Stated: Yes. We all have the same type of boats. They only differ in lenght.  One staated: It depends on what they use it for. In terms of touristic cuises or fishing.  |
| (Note to interviewer: please probe into artisanal/traditional, commercial,               | One stated: To eat and make a living.  Moderator: What types of boats do you own?  One stated: I have a boat that is about 7 meters long. Around seven to eight people fit in it.  One stated: I also own a seven meter long boat.  Moderator: it also fits the same amount of people?  One Stated: Yes. We all have the same type of boats. They only differ in lenght.  One staated: It depends on what they use it for. In terms of touristic cuises or fishing.  Moderator: So there are people that help you during your fishing trip?  |
| (Note to interviewer: please probe into artisanal/traditional, commercial,               | One stated: To eat and make a living.  Moderator: What types of boats do you own?  One stated: I have a boat that is about 7 meters long. Around seven to eight people fit in it.  One stated: I also own a seven meter long boat.  Moderator: it also fits the same amount of people?  One Stated: Yes. We all have the same type of boats. They only differ in lenght.  One staated: It depends on what they use it for. In terms of touristic cuises or fishing.  Moderator: So there are people that help you during your fishing trip?  One stated: Yes defintely.  |
| (Note to interviewer: please probe into artisanal/traditional, commercial, recreational) | One stated: To eat and make a living.  Moderator: What types of boats do you own?  One stated: I have a boat that is about 7 meters long. Around seven to eight people fit in it.  One stated: I also own a seven meter long boat.  Moderator: it also fits the same amount of people?  One Stated: Yes. We all have the same type of boats. They only differ in lenght.  One staated: It depends on what they use it for. In terms of touristic cuises or fishing.  Moderator: So there are people that help you during your fishing trip?  One stated: Yes defintely.  One stated: Some of use need help so they get help from Syrian helpers. |
| (Note to interviewer: please probe into artisanal/traditional, commercial,               | One stated: To eat and make a living.  Moderator: What types of boats do you own?  One stated: I have a boat that is about 7 meters long. Around seven to eight people fit in it.  One stated: I also own a seven meter long boat.  Moderator: it also fits the same amount of people?  One Stated: Yes. We all have the same type of boats. They only differ in lenght.  One staated: It depends on what they use it for. In terms of touristic cuises or fishing.  Moderator: So there are people that help you during your fishing trip?  One stated: Yes defintely.  |

| (Note to moderator: please probe into size of boat, motor/sail, number of fishermen in each boat)  |  |
|--|--|
| B3. What are the specific fishing gears employed?  (e.g. hook and line, traps, nets, diving gears, dynamite etc)   | All stated: Traps, nets, hooks, cages and taps.  |
| B4.1. What types of fish?  | All types of fish, sardine, Sultan, Akkeis, Jarbidi. Shrimps.  One stated: There are many types of fish. There are some fish that can't be eaten.  One stated: There are many fish, if you want me to name them all, it will take me two hours. During the night, we throw our nets and hooks and pull out Trichogaster leeri fish, Ankawa fish and the leon deadly fish. If this fish's needle pokes you, you won't have enough time to run to the hospital. This fish was thrown into our water by our government.  Moderator: What do you mean the government?  One stated: It was just a story.  One stated: nThe government through fish eggs into the ocean and the eggs were Leon fish eggs. This fish is not edible and may be deadly and dangerous because it cuts our nets as if using a laser machine. The thing is that it is not sure whether or not the government really did throw these eggs, even though they were trying to do good with us. But anyway, we don't have a government to refer to. |
| B4.2. Where do you go for fishing?  (Note to moderator: please probe into distances in kilometers, near/ far from shore (for anglers in specific), also ask if they fish from the shore) | One stated: From Byblos to Batroun, three to four kilometers deep. One stated: Nothing affects us within six kilometers. One stated: It depends on the ground where we can stop. We sometimes go as far as three to four km away. One stated: Those who go to fish Tuna fish go six KM away from shore. One stated: Six to seven miles away. One stated: Sometimes even more. It depends. One stated: But I think if someone wants to go farther, the UN will interfere. One stated: In general, nothing affects us within the six km region. But we don't know whether or not this project will affect us; us who fish at six km away from shore. Moderator: You all go with your boats to fish? Do you stand at shore or where? One stated: Not on shore. One stated: Some stay at shore. But we don't. One stated: Shore as in land? Is this what you mean? Moderator: Yes. One stated: No, we don't. Those people don't live in the ocean.   |

|  | Several stated: Everyday.  One stated: It depends on the weather.  One stated: I told you, if you don't work, then you won't eat.  One stated: We sometimes sleep in the sea. We go from 7;00 P.M. till sunset if we were able to catch a lot of fish. Sometimes they come back and go again in  |
|--|--|
| B5. When do you usually go for fishing?  (Note to moderator: please probe into hour, time of the day and seasons)  | the morning. One stated: In general, people go from 11:00 A.M. to 15:30 P.M. One stated: It differs on the type of person. For instance, I go from 7:00 A.M. until sunset, I use nets and have two to three drivers with me. I use this  |
|  | technique to catch big fish. I sometimes leave the net in the ocean for several days, but this technique is used in specific seasons.  Moderator: Which season?  |
|  | One stated: Depends on the fish when they come. I have been throwing my nets on shore.   |
| B6. How much fish do you catch on an average fishing trip?   | One stated: Five to 10 kgs.  One stated: I stayed in the ocean all night last night and only brought back five kilos of fish.  Onen stated: We sometimes catch 10 kilo grams and barely sell them for LBP 40,000 and sometimes you may catch two kilo grams but sell them for LBP 150,000. But in general it all depends on the type of net used.  |
| B7. How do you preserve the fish?  (Note to moderator: ice or smoked, other?)  | One stated: Coops, marke s and fisheries.  One stated: If large quantities the fish is taken to Beirut to the Fish Market.   |
| B8. Does anyone help you with fishing?  (Note to moderator: please probe into who are the crew members if any e.g family members, poorer members of community, refugees) | One stated: We sell the fish to the coop, markets and fisheries. One stated: Our fishermen cooperative is an actual fishery. We are the ones who created it. One stated: We did this cooperative and provided rooms for our helpers. One stated: Refugees help in taking out the nets and help with cleaning the fish. One stated: Not everyone follows this strategy. Some go to cooperatives and markets, others go to sell their catch outside. Moderator: Where do you mean? |
|  | One stated: I go to fisheries and the Fish Market in Beirut. One stated: Sometimes if I have one ton of fish, a fishery can't really take them all, so I have to go sell them at an auction. These auctions are in Beirut or in Tripoli.   |

Moderator: You don't have a fish market here? One stated: No. We either go to Tripolii or Beirut. One stated: There are a few fisheries here. Moderator[Asking a participant]: How much fish do you catch? One stated: Let me tell you something, a fishermen has lies for dinners and cold for breakfast. It all depends on Gods will to give us fish this day. We sometimes catch fish that are worth LBP1,000,000 or LBP2,000,000, and sometimes you go and come back with nothing; Nothing to even cover the expenses paid on the whisky and finger food we take with us. Moderator: So you sometime suse equipement and tools that you can't even gather their price? Three stated: yes. One stated: For example, if we do a small net out of around six hooks; this would cost around USD1,500. We may benefit from it for the first one or two days but then a dophin swims into our waters and ruins our nets. The dolphin hasn't come for around a week now. One stated: I threw a net out of four hooks two days ago, but the ocean suddenly got stronger, so my net ended up on stones that ripped it. Moderator: So you can't say that you have a monthly income out of this job? One stated: No one can live out of being fisherman only. One stated: The money that comes from fishing stays in the fishing field. If we profit from our fish, the money goes to repairing equipment. Moderator: Someone was telling me that it costs him around USD1,500 to do a net that would eventually get ruined. One stated: Yes, for instance, sometimes even if we catch a lot of fish, the dolphin manages its way to rip our nets under water. So all we caught goes to waste. Additionally, if its not a dolphin, it would be something else in the sea. My net got ruined the other day because of a bumper car object in the water. One stated: You can find everything in our ocea, don't forget we are in Lebanon. Saida and Karantina's garbage are coming towards us. Where do you think they are going? Before you start drilling, you'll need two days just to remove the garbage from the water. B8.a. If yes, what is their role? How do They buy the fish from us and resell to people. they exactly help you? One stated: They pray for us. One stated: Not here. There are in Tabarja and Tripoli. One stated: Women here are class. [Sarcastically] B8.b. How females are involved in fishing? Are gender there One stated: Working in the sea is exhausting. If a women went and did her differentiated roles? nails, she would never accept to go into the ocean and throw nets and smell the smell of fish all day. Moderator: Do you think this is the only obstacle, or there is something else?

|  | One stated: No, this thing is not for women.                                   |
|--|--|
|  | One stated: In our cooperative, we are 30 men, but only 10 go into the ocean.  |
|  | Why do you think its like this? Because there isn't enough fish [not relevant] |
|  | Moderator: How many fishermen are there here? Those who make a living out      |
|  | of it.   |
|  | One stated: Around 30. In Halat there are about 20.                            |
|  |  |
|  |  |
| B8.c.1. Are there any similar examples     |  |
| in community?                              |  |
| -  |  |
|  |  |
|  |  |
|  |  |
| B8.c.2. What are the roles of people       |  |
| engaged in fishing in your community?      |  |
|  |  |
|  |  |
|  |  |
|  |  |
| B9. What type of fish do you catch and     |  |
| what do you do with the fish catch?        | [Answered above]   |
|  |  |
|  |  |
| B9.a. Are these goods for sale/ Used       |  |
| for own consumption/ For leisure? If       |  |
| for sale, please describe how.             | [A normana di alta avai]   |
| (through a cooperative, wholesaler, street | [Answered above]   |
| vendors, how much per kilo)                |  |
|  |  |
|  |  |
|  |  |
| B9.b.1. How do you advertise your          | [Answered above]   |
| fish?                                      | [Aniswered above]  |
|  |  |
|  |  |
|  | [Answered above]   |
|  |  |
| B9.b.2. Who is involved in the             |  |
| marketing and sales process?               |  |
| (Note to moderator: please probe into the  |  |
| roles of men vs. women in the household)   |  |
|  |  |
|  |  |
|  |  |

| B9.c. Are there markets available for fishermen/ individuals conducting marine activities to sell their fishes/products/ services?                                     | [Answered above]  |
|--|---|
| B9.d.1. Do you/ or does any household member earn any income from fishing?   | ☐ Yes ☐ No  |
| B9.d.2. If yes, what is its share from the total household income?   |   |
| B9.d.3. Do you have any alternative livelihood activities that you undertake alongside fishing?  |   |
| <b>B10.</b> Approximately, how many fishermen are there in your village (as a livelihood or as a recreational activity please specify)?                                |   |
| <b>B11.1.</b> From your experience, what problems at seas are there?   | Yes. Moderatoe: What are your problems? One stated: Pollution. There is a little pollution in the sea today, but hopefully it wont get worse after the oil drilling in the sea. Moderator: What other than the drilling are you worried about? Total has a plan for everything so don't worry. One stated: Fish may travel away due to waste in the sea. Moderator: What other than pollution and garbage? One stated: Only garbage. I change the gear of my boat because of plastic bag in the ocean. It got stuck in my boat. One stated: The petroleum in the South pushes fish away. This is a problem. |
| B11.2. What changes have you noticed over the years?  (Note to moderator: please probe into safety, equipment, pollution, fish stock (plenty of fish or few fish)etc.) | We have a port today but got wrecked due to storms three years ago.   |

|  | Moderator: You told me a lot of negative aspects, but what about the positive  |
|--|--|
|  | things?  |
|  | One stated: They aren't only negative aspects; they're they truth.   |
| B12. What are the factors that                           | One stated: Are you asking about your company?   |
| positively and negatively influence                      | Moderator: No, I am asking about the positive things about your lifestyle as   |
| fishing activities in your area?                         |  |
| (Note to moderator: please probe into                    | fishermen. I mean what are the positive factors in your area?  |
| problems faced by fishermen in this village,             | One stated: Positively? nothing. We have the marine that might help but it is  |
| work conditions and welfare)                             | not available now. They demolished it.   |
|  | Moderator: How was the port beneficial to you?   |
|  | One stated: Before having the port, we used to park outside, it was very hard  |
|  | on us. Plus, the drastic and harsh weather we had ruined it. We are still waiting  |
|  | for the government to fix it for us.   |
| C. 9   | SOCIO-ECONOMIC INDICATORS AT THE LOCAL LEVEL   |
|  |  |
| C1. How would you describe the                           |  |
| current coastal resource conditions in                   |  |
| your community?  |  |
|  |  |
| C2. What are the top 3 major threats to                  |  |
| the health of coastal resources in your                  |  |
| community?   |  |
|  | All stated: Us fishermen.  |
|  | One stated: All Lebanese are vulnerable, especially fishermen.   |
|  | One stated: Let me tell you something, we as people from Halat don't own a   |
|  |  |
|  | port. All areas such as Okaibeh, Jbeil and all Kesserwan own ports except for  |
|  | us.  |
|  | One stated: Why?   |
|  | One stated: We don't have politicians to do a port for us.   |
|  | One stated: We asked the government to add us fishermen to the NSSF system.  |
|  | But they only did cards for 2000 people only. The elections happened and   |
|  | everything after that and yet no one is thinking about us. All fishermen and not   |
|  | only us as fishermen in Jbeil.   |
| 63 Mbs. da idantife. aa ambaantila                       | One stated: But fishermen in the North and the South have certain  |
| C3. Who do you identify as vulnerable in your community? | characteristics.   |
|  | Moderator: What are these characteristics?   |
|  | One stated: For example, in Sarafand, fishermen there have the fastest boats.  |
|  | Army can't even follow them.   |
|  |  |
|  | Moderator: How far in the ocean are you allowed to go?   |
|  | One stated: Six miles or you have to speak to the naval base to go farther.  |
|  | Moderator: You never went farther than six miles? What happens if you do?  |
|  | One stated: We don't do it. It is illegal.   |
|  | One stated: The fine is around LBP 3,600,000 for every net. In the North they  |
|  | still get small fish.  |
|  | Moderator: You men in the North and South.   |
|  | One stated: For example, we are not allowed to use a bottle of water in the  |
|  | ocean, while the wholesaler or the customs.  |
|  | The state of the s |

|   | One stated: If I don't go to the ocean, then my family won't eat.               |
|---|---|
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |
|   | Moderator: Activities such as repairers?  |
|   | One stated: Yes. Not in Byblos in Tripoli.                                      |
|   | One stated: Net making is found in Tripoli where female Syrian refugees make    |
|   | nets and sell them to us fishermen.   |
|   | Moderator: What about seashell collectors?                                      |
|   | One stated: There isn't seashell collection. When a fishermen goes to catch     |
|   | fish, he wouldn't be able to wait to come back home to rest or sell his         |
|   | fish .Those who collect seashells do it as a hobby, although it is something    |
|   | that's makes good money. When one works in the ocean and gets attached to       |
| C4. Besides fishing, are there any  | the ocean, he won't be able to work something else.                             |
| other marine activities available in  | Moderator: What about sea worm collectors and diving classes?                   |
| this village?   | One stated: We font haveworm collectors either. It also makes good money.       |
| (Note to moderator: Please probe into boat  | One stated: Our shore is full of rocks. Worms can't be collected here. You can  |
| repairing, net making, collecting seashells,  | find them in Jounieh. The shore there is sandy.                                 |
| sand extraction, salt extraction, sea worm collection, molluscs or small fish collection, | One stated: There are diving classes but not in Byblos. There is in Dora.       |
| rubbish scavengersetc.)   | One stated: There are. They teach diving in pools and not in the sea. There are |
|   | diving classes in San Paul.   |
|   | Moderators: Who teaches diving?   |
|   | One stated: San Paul.   |
|   | Moderator: Are there women who teach diving?                                    |
|   | One stated: No, not in our area.  |
|   | Moderator: Is there income from these activities?                               |
|   | One stated: Yes, of course.   |
|   | One stated: You need money to open such a activity. Definitely not us           |
|   | fishermen.  |
| C4.a. Which activities? Who performs  |   |
| those activities and where?   |   |
| (Note to moderator: Please probe into   | Female Syrian refugees.   |
| gender: female vs. male, age groups:  | [Answered above]  |
| youth vs. adults vs. elderly, nationality groups: Lebanese vs. refugees)                  |   |
| g. saps. Lebunese vs. relagees,   |   |
|   |   |
| C4.b. How women are involved in such  |   |
| activities?   | No.   |
|   |   |
|   |   |

| C4.c. Which season in a year are these activities performed?   |   |
|--|---|
| C4.d.1. Do they earn income from those activities?   | Yes. People who do such activities have money and high budget. Hence we fishermen are not responsible for such activities.  |
| C4.d.2. And do they have alternative livelihoods?  |   |
| C4.e. Do they have any major problems or sensitivities in community?   |   |
| C5.a. What other types of economic activities are available in this village?  (Note to moderator: Please probe into landbased livelihoods like farming, businesses, markets, artisans etc.)  | One stated: Yes there is agriculture such as planting cucumber and tomatoes. One stated: honey making from bees. One stated: Electronics. Moderator: Are there any artisans here in the area? One stated: Artisans are rare. One stated: They are found in the rural areas.   |
| C5.b. What about those specifically located on the coastline?  (Note to moderator: please probe into beach resorts, hotels, marine tourism by tour operators, diving/surfing schools, retail/rental services of fishing supplies or sea equipmentetc.) | One stated: There are resorts but mostly residential buildings. There are industries too. One stated: There no longer is a shore for our area anymore. All shore lands are owned by people or resorts. One stated: You have to pay money now, wherever you go. One stated: Fishing supplies.                          |
| C5.c. Can you give estimate shares of each of those economic activities, at the local level?   | One stated: Most people live from the sea.  One stated: Agricultural share: 1% [sarcastically showing the few share]  One stated: Business (hotels etc.): all profits are for the private owners.  One stated: There is only one store for fishing supplies.  One stated: We buy our supplies from Halat and Tabarja. |
| C6.1. Do you have any touristic site in this village?  | <mark>⊠ Yes</mark> □ No   |

| C6.2. If yes, what is it exactly? where is it located and do you have tour operators? Boat trips?       | One stated: Byblos Castle. One stated: Mina as people pay for boat trips. Souk Jbeil. |     |                                    |  |
|---|---|-----|------------------------------------|--|
|   |   | Y/N | Location                           |  |
|   | y. Nature reserves  | No  |                                    |  |
|   | z. Temples, palaces, castles  | Yes | The Castle in Byblos and the port. |  |
| C7. Do you have any of the following in your village? If yes, please describe and indicate the location | aa. Ottoman structures  |     |                                    |  |
|   | <b>bb.</b> Museums  | Yes | The Candle museum on the Sea side. |  |
|   | cc. Religious heritage  | Yes |                                    |  |

|   | dd. World Heritage  |
|---|---|
| C8. Do you have adequate water supplies in your village?  | ☐ Yes ☑ No Not so good.   |
| C9. What about electricity and waste management services?  (Note to moderator: Please probe on the coastal part of the village as well) | One stated: The municipality is responsible to collect the waste. The government throws all the garbage in Gherfine.  One stated: There is state electricity and private electric generators. |
| C10.1. In general, are the roads in your village in good condition?   | ☐ Yes ☑ No One stated: Very bad. Accidents can happen due to the bumpy roads. Moderator: What about the seaside road? One stated: It is worse. One stated: You need to buy a jeep.            |
| C10.2. Are there any public transport services?   |   |
| (Note to moderator: Please probe on the coastal part of the village as well)  |   |
| C11.a.1. What illnesses are most prevalent in your community?   | One stated: No illnesses. No hereditary disease.  One stated: [argues] yes there are illnesses. Due to dumpsters and factories tha get rid of their waste into the environment.               |
| C11.a.2. And does fishing cause any health hazards?   | One stated: No. One stated: But there is danger in case of hazardous waves.   |

| C11.b. Which healthcare facilities are available in your village?  (Note to moderator: Please probe into hospitals, public clinics, mobile clinics, how far they areetc.). | One stated: Yes, pharmacies are available but no hospitals in Byblos. However available in the neighborhood. |
|--|--|
| C11.c.1. Are they reliable services?   | ☑ <mark>Yes</mark> ☐ No<br>But very expensive  |
| C11.c.2. If no, why not?   |  |
| C11.d.1. Do they meet the community healthcare needs?  | ☐ Yes ☐ No   |
| C11.d.2. If no, why not and do you think you need more healthcare facilities in the area?  | One stated: Fishermen should be enrolled in the NSSF system.   |
| C12. a.1. What about the educational services?   | One stated: Yes there are.   |
| C12. a.2. Do you have schools/<br>training centers in your village?  |  |
| (Note to moderator: please probe into the different levels: primary schools, secondary schools, universities and technical schools)  |  |
| C12.b. How do you evaluate the educational levels by age groups (youth, adults and elderly) in your communities?   |  |

| C13.1. How do you describe the safety and security conditions in your area?                              | One stated: Under control. One stated: It is safe here.                             |
|--|---|
| C13.2. Which parties play the major role(s) in this regard?  | One stated: The government.   |
| C14. Are there any associations or NGOs in your community (if so what do they do?)                       | One stated: In Keserwan, school that has a lower tuition fee by Symbolic education. |
| C15. What problems exist in the community?   |   |
| THEME 3:   | COMMUNICATION AND FEEDBACK MECHANISMS   |
| Q1. What are your most important information needs in relation to the upcoming oil exploration activity? |   |
| Q2. How do you like to receive any future project updates?   | One stated: Facebook.   |
| Q3. Are there any stakeholders that you would recommend that we talk with?                               | One stated: Restaurants and hotel owners.   |
|  | ADDITIONAL NOTES  |

| TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON      |
|---|
| FOCUS GROUPS DISCUSSION GUIDE FOR               |
| FISHERMEN / ANGLERS/ FISHING HOUSEHOLDS (WOMEN) |

Name of village: Okaibe (Safra) Date of the discussion: 21 May 2019

| Name(s) of attendees:  |  |                                 |
|--|--|---------------------------------|
| Notes  |  |                                 |
| THEME 1 DEMOGRAPHICS   | L – STAKEHOLDER EN                     | IGAGEMENT AND IMPACT ASSESSMENT |
| Q1. Please introduce the oil drilling activities using the BIDs and posters. Once completed give the participants an opportunity for questions and you provide an answers to their questions as far as possible. If you cannot answer then please take the stakeholders contact details and tell them you will get the answer and get back in contact as soon as possible. |  |                                 |
| Q2. Now, do you have questions?  |  |                                 |
|  |  | O-ECONOMIC OVERVIEW             |
| A.1.1. What is your name?  | G.                                     | DEMOGRAPHICS                    |
| A.1.2.What is your age?  | -47<br>-64<br>-62<br>-55<br>-42<br>-57 |                                 |

|   | -49   |
|---|---|
|   | -51   |
|   | -73   |
| A2.1. Are you married?                                | Yes (all fishermen are married)   |
|   | -one kid  |
|   | -four kids  |
|   | -five kids  |
|   | -two kids   |
| A2.2.If yes, how many kids do you                     | -two kids   |
| have?   | -two kids<br>-three kids  |
|   | -three kids   |
|   | -two kids   |
|   |   |
|   | -four kids  |
|   | -no from North of Lebanon, living in Safra  |
|   | -no i live in Nahr Ibrahim  |
|   | -no from Halat  |
|   | -no from El Ka'a  |
| A3.1.Are you from this village?                       | -Yes  |
|   | -Yes  |
|   | -from El Ka'a born in Okaibe  |
|   | -Yes  |
|   | -Yes  |
|   | -for about 24 years   |
|   | - for about 20 years in Nahr Ibrahim  |
|   | -since I've been a kid  |
| A3.2.How long have you been residing in this village? | -for about 70 years   |
| residing in this vinage:                              | -since birth  |
|   | -since birth  |
|   | -since birth  |
|   | -(the response cannot be heard)   |
|   | -(some unclear negotiations) about 2,500 persons  |
| A4. How many people live in the                       | -about 3,000 persons  |
| village?  | - Okaibe: about 10,000 people   |
|   | -residents in Okaibe: about 10,000 but only 6,000 are natives                               |
|   | -fisherman and owns a pickup  |
| A5. What is your profession?                          | -fisherman  |
|   | -fisherman and diver  |
|   | -fisherman  |
|   | -fisherman  |
|   | -fisherman  |
|   |   |
|   | -fisherman and sea investor during summer -fisherman and a fisherman technician/mechanician |
|   | -iisneriiian and a iisneriiian technician/mechanician                                       |
| B. FISHING ACTIVITIES                                 |   |

|  | 0   |
|--|---|
|  | One stated: alone, no one helps me  |
|  | One stated: my brother  |
|  | One stated: my five kids  |
|  | One stated: my son  |
| <b>B1.1.</b> Are you/ or is anyone in your household, currently involved in            | One stated: sometimes my son or a Lebanese worker   |
| fishing?   | One stated: my son used to help me but now he's pursuing his dream of becoming  |
|  | a captain abroad  |
|  | One stated: my son  |
|  | One stated: all alone   |
|  | One stated: sometimes my son helps me, but mainly I work alone  |
|  | One stated: Yes of course it is commercial fishing, it is our profession.   |
|  | One stated: This engagement was our daily job but it massively deteriorated   |
| B1.2. What types?  | during these recent years.  |
| (Note to interviewer: please probe into  | Moderator: Since what year exactly?   |
| artisanal/traditional, commercial,   | One stated: From ten years till now the fishing activity has decreased and it's   |
| recreational)  | impossible nowadays to support a whole family from this only job.   |
|  | One stated: Especially when fuel was thrown in the sea many major components  |
|  | of the fishing culture have disappeared, for instance like the Toutya, seashells  |
|  | We all use wooden boats and powerboats. (they all agreed on that)   |
|  | Zakhia stated: I use a nine and a half meters (9.5meters) boat, an eight and a half   |
|  | meters (8.5meters) and four meters boat.  |
|  | Moderator: How much is the size of each boat?   |
|  | One stated: The size of boats varies from four meters to 15 meters.   |
| D2 What time of boots / newspheats   | Moderator: Who has a 15 meters boat?  |
| <b>B2.</b> What type of boats/ powerboats are you using for fishing?                   | One stated: I do.   |
|  |   |
| (Note to moderator: please probe into size of boat, motor/sail, number of fishermen in | Moderator: How many fishermen can it contain?   |
| each boat)   | One stated: 5 fishermen are needed to work in a 15 meters boat but recently a   |
|  | machine is being used as a fishing net instead of people.   |
|  | Moderator: How many people help you Mr. Rabih?  |
|  | Rabih: My friends usually assist me.  |
|  | One stated: The number of workers varies according to the boat size and the kind  |
|  | of fishing gear employed.   |
|  | Moderator: What about you Tony?   |
|  | Tony: I have a boat where I fish deeply (two to three meters deep).   |
|  | One stated: I usually use nets, and a bakra بكرة  |
|  | Moderator: What are some other fishing gears employed?  |
| B3. What are the specific fishing gears employed?                                      | One stated: Everyone relies on a different fishing gear. Some prefer a hook and   |
|  | a line or a reel  |
| (e.g. hook and line, traps, nets, diving   | Two stated: we use a net and a diving gear.   |
| gears, dynamite etc)   | One stated: All fishermen use a fishing pole.   |
|  | Moderator: What about dynamites?  |
|  | One stated: None of us depends on dynamite since it's considered illegal.   |
|  | The second control of |

| B4.1. What types of fish?  | One stated: No specific type in particular, we fish all different kinds. Each month is characterized by its own unique fish and as the sea speeds up and strengthens, a new kind is discovered.  Moderator: Tell me more what does winter season produces fish?  One stated: Usually during winter, fish like white sea bream سرغوس are widespread,  One stated: بريدي are widespread,  One stated: During summer?  One stated: During summer fish like مريدي grouper, sultan are found.  One stated: For example, you can catch by my net fish like sultan, جريدي ,ملفة ملكة ما الله الله الله الله الله الله الله ا  |
|--|--|
| B4.2. Where do you go for fishing?  (Note to moderator: please probe into distances in kilometers, near/ far from shore (for anglers in specific), also ask if they fish from the shore) | One stated: I go fishing in Halat, it's two kilometers away from the shore One stated: I go fishing from Tabarja going to Jbeil and it is two three kilometers away from the shore.  Moderator: You usually go to one specific place all the time? One stated: We got used to go fishing in specific places but not further than two or three and a half kilometers away from the shore Moderator: Why not further than than two or three and a half kilometers away from the shore One stated: Since the sea will get deeper. (some unclear conversation afterwards) Moderator: You told me you can go further than ten kilometers? And how do you go? One stated: We sometimes go further than 10 kilometers taking into consideration the state of the sea. We go in those normal small boats. Moderator: Does any of you fish from the shore? All agreed and stated: We don't usually fish from the shore. |
| B5. When do you usually go for fishing?  (Note to moderator: please probe into hour, time of the day and seasons)  | One stated: We usually go for fishing at night. (all agreed on that) One stated: Sometimes we put the net at night and remove it after a couple of hours, One stated: whereas other times we put the net at night and remove it the following morning. One stated: We also alter our fishing hours according to sunrises and sunsets. One stated: For instance, mr. Alfred chooses to fish in the morning, while Jean prefers going at night; everyone has his own different timing. Moderator: But mainly how are the seasons divided in terms of a rich fishing culture? One stated: Summer is the richest season in fish due to the nice weather and calm air currents. One stated: The sea doesn't know summer or winter, both ways it will be rich in plenty of fish  |

| B6. How much fish do you catch on an average fishing trip?   | One stated: We could catch one ton of fish a day or no fish at all, it depends. One stated: Some days the sea produces strong currents (like the case in Nahr Ibrahim) only the fishermen and these currents ruin the fishing nets in their turn and hinder our activity.  One stated: The sea's strategy is limited so fish don't settle in one place; everything should be studied and examined in order to know the exact position for the nets to catch fish.  Moderator: How many fish do you collect in case of a successful day.  One stated: I catch a maximum of 25 to 30 kilograms of fish and earn in return 200L.L – 300L.L, but that's not the case every day.  |
|--|--|
| B7. How do you preserve the fish?  (Note to moderator: ice or smoked, other?)  | One stated: Honestly, we Lebanese people live each day by its day and don't think about preserving the fish. In Lebanon purchasers import rotten fish and sell them in our markets, where on the other hand we are restricted to freeze fish for other days.  Moderator: Why?  One stated: Sadly companies that purchase our fish and sell them in different markets don't provide us with specific materials to freeze our fish for upcoming days, but they have the right to import iced fish from other nearby countries.  Moderator: This means that you sell fresh fish?  One stated: We sell fresh fish only and advertise them in Beirut markets and eventually end up with great losses and (20 kilograms of fish for 30,000L.L that may reach 5,000L.L or 2,000L.L at the end of the day)  One stated: Some fish may be thrown in the harbor.  One stated: Abroad companies motivate and help fishermen in freezing fish unlike our case. |
| B8. Does anyone help you with fishing?  (Note to moderator: please probe into who are the crew members if any e.g family members, poorer members of community, refugees) | One stated: Our kids normally help us in fishing (all agreed on that) One stated: We employ sometimes Syrian or Egyptian workers.  |
| B8.a. If yes, what is their role? How do they exactly help you?  | One stated: We employ them for harsh duties in some issues that don't suit a Lebanese worker (like cleaning). Some workers depend on this job they pursue during these 7-8 months to fulfill some necessary financial obligations.   |
| B8.b. How females are involved in fishing? Are there gender differentiated roles?  | One stated: No (All agreed that this activity or job doesn't suit a woman and none of the females in their families are involved in fishing except for one Fisherman) One stated: My wife and daughter help me in cleaning the fish and sometimes in throwing the net and catching fish.   |
|  |  |

| B8.c.1. Are there any similar examples in community?   | One stated: Women these days don't desire working such jobs.  Moderator: What are they interested in?  One stated: They are interested in business jobs   |
|--|---|
| B8.c.2. What are the roles of people engaged in fishing in your community?   |   |
| B9. What type of fish do you catch and what do you do with the fish catch?   |   |
| B9.a. Are these goods for sale/ Used for own consumption/ For leisure? If for sale, please describe how.  (through a cooperative, wholesaler, street vendors, how much per kilo) | One stated: For sure we catch some fish to consume ourselves with our families (all agreed on that) One stated: However, selling these goods is a necessary task for us and especially placing the renowned fish for sale. One stated: The ruined torn fish will be taken with us home (in a sarcastic manner).  Moderator: How much is usually the price of one kilogram of fish? One stated: The prices are put according to demand and supply. The prices approximately vary between 8,000L.L and 60-80,000L.L. Moderator: Which fish attains a price of 80,000 L.L One stated: Sultan since it is the most expensive kind of fish. One stated: For example, the rocky grouper hasn't ever reached a price less than 30,000L.L- 35,000L.L, but now it attained a price of 12,000L.L. One stated: So this depends on the supply and demand, if the supply increased the price will decrease and the opposite is true. Moderator: What is the cheapest kind of fish? One stated: $\wp$ |
| B9.b.1.How do you advertise your fish?   | One stated: We usually advertise our fish in the fishery (all agreed on that) One stated: Whereas the excess fish are transported to Beirut markets and coops.  |

| B9.b.2. Who is involved in the marketing and sales process?  (Note to moderator: please probe into the roles of men vs. women in the household) | One stated: We don't actually advertise our fish in cars or display them on roads. One stated: Fish are displayed in markets.   |
|---|---|
| B9.c. Are there markets available for fishermen/ individuals conducting marine activities to sell their fishes/products/ services?              | One stated: Yes, there are specific markets that permit fishermen to advertise their sea products and services. (all agreed on that)  |
| B9.d.1. Do you/ or does any household member earn any income from fishing?  | □ <mark>Yes</mark> □ No   |
| B9.d.2. If yes, what is its share from the total household income?  | One stated: 0, some days you cannot save 100,000L.L and other days you save maximum an amount of 400,000L.L to 500,000L.L; this all vary accordingly. Moderator: Throughout 12 months, how many months of work are accomplished?  One stated: Throughout a year of 12 months, only six months of work is accomplished. (all agreed)  Moderator: How much do you earn in during these six months.  One said: Personally speaking, during these 6 months of work I earn a maximum of 40 million L.L and 20 million L.L as a minimum.  Moderator: How much is the income ratio in counter with the fishing expenses? One stated: 40% of our work is allocated to the expenses since this latter that includes specific materials and equipments is very costly and may be greater than the income earned at some points.  One stated: Some fishermen earn two million L.L during six months, meanwhile the equipments cost 100 million L.L  One stated: Losses are very imminent in our work.  Moderator: Mr. Alfred please tell us what has changed throughout the recent years?  One stated: Nothing my health case deteriorated (sarcastically) |
| B9.d.3. Do you have any alternative livelihood activities that you undertake alongside fishing?   |   |

#### One stated: If you conduct a survey you can realize that 60% of the people in our village are sailors who love the sea and go there frequently but in reality the number of fishermen doesn't exceed 14. Moderator: How many available boats are available in the village? Approximately, how B10. manv fishermen are there in your village (as One stated: There are plenty of boats. a livelihood or as a recreational Moderator: Are they all dedicated to fishing? And how many sailors are? activity please specify)? One stated: Yes, there are 14 sailors. One stated: We are saying that there are 14 active sailors, while there are 70 who practice fishing and depend on another profession at the same time. Moderator: Pollution is the major problem right? What are there other major problems? One stated: Another problem is the dominance of several companies occupying the sea and fighting over the distances between their neighboring companies. B11.1. From your experience, what problems at seas are there? This is illegal but what can be done in a country where bribery and clout pervade. One stated: For example, the ATCL compound in Kaslik (Bain militaire) threatens fishing and all the maritime activities due to the establishment of several companies so near the sea and from all sides. One stated: Honestly, the sea became old and void of fish. One stated: The population has increased and the fishing methods have deteriorated and decreased. In addition to that, the wastes and garbage (from Saida recently) thrown in the sea have worsened the sea's image and sanitation. One stated: The pollution and spread sewage are major problems along with indiscriminate fishing through breaking the laws. Thus, the sea is in a total B11.2. What changes have you destruction. If we didn't put the adequate safeguards to protect the sea and its noticed over the years? resources, it will sadly worsen day by day until reaching collapse. (Note to moderator: please probe into (some unclear example about matchsticks) safety, equipment, pollution, fish stock One stated: Throughout my whole experience in sea, pollution is the worst (plenty of fish or few fish)...etc.) catastrophe that caused the sea since it is not polluted anymore it's toxic. You start seeing nylon and cartoon boxes floating in the middle of the sea. This is really shameful. I don't believe in what they claim that the sewage and chemicals are affecting the sea, but the wastes thrown are deadly harming the water. One stated: If you cut the fish from the middle, you realize something like asphalt present in the heart of the fish. B12. What are the factors that One stated: There's only one positive influence which is the technological positively and negatively influence fishing activities in your area? dominance on our current generations, yet the fisherman has the chance to go fishing without holding any cell phone but doing some physical effort throughout (Note to moderator: please probe into his day. problems faced by fishermen in this village, work conditions and welfare) C. SOCIO-ECONOMIC INDICATORS AT THE LOCAL LEVEL One stated: We already discussed this matter a couple of minutes ago, and it's C1. How would you describe the that there are several companies so near and close to the shore and this threatens current coastal resource conditions in

our sea and its resources.

-[One ambiguous example mentioned]

your community?

| C2. What are the top 3 major threats to the health of coastal resources in your community?   |   |  |  |
|--|---|--|--|
|  | One stated: We the fishermen are considered the most vulnerable party in our community  One stated: No no I don't accept such talk, we are not the weakest party in   |  |  |
| C3. Who do you identify as vulnerable in your community?   | Okaibe, and if you think yourself weak then it's your opinion. The fisherman's faith is big but his calculations are very little. (in an angry manner)  One stated: That's my personal opinion, since we have no insurances, whether medical or financial and they've been promising us with these grants since 20 years and we both know in case of entering a hospital with no insurance you've got to hold the favor of people. That's the reason behind my harsh opinion, since the state doesn't provide us with any of our rights like the social security, Old-Age security, and medical insurances. |  |  |
|  | We also need Old-Age security to help and aid us during our final years of life. Similarly to our current state, we don't know at what time our health condition might worsen or need a medical revision.  One stated: He's definitely right, being vulnerable is not being weak but being  |  |  |
|  | unprotected from the state.   |  |  |
|  | One stated: is a technician, he fixes motors and boats.  One stated: I'm a diver  |  |  |
|  | Moderator: why didn't you study diving in a specialized school?   |  |  |
|  | One stated: I did study diving and graduate with a diving license, but in the   |  |  |
| C4. Besides fishing, are there any   | meantime my age doesn't allow me to practice this sports.   |  |  |
| other marine activities available in   | Moderator: Does anyone of you create and construct nets?  |  |  |
| this village?  | One stated: Some of us do   |  |  |
| (Note to moderator: Please probe into  | One stated: No, we mainly import basic equipments from abroad and we  |  |  |
| boat repairing, net making, collecting seashells, sand extraction, salt extraction,  | construct boats.  |  |  |
| sea worm collection, molluscs or small fish  | Moderator: Does anyone extract salt, stones or sand from the sea in your village?   |  |  |
| collection, rubbish scavengersetc.)  | One answered: It's forbidden to extract stones and salt or else we'll be  |  |  |
|  | sanctioned, and as for salt we don't quite have in our region, except for someone   |  |  |
|  | who personally manages salt extraction by himself; he's called Semaan if you'd  |  |  |
|  | like to talk to him (in a sarcastic manner).  |  |  |
|  | One stated: No seashells nor sea worm collections take place in our region.   |  |  |
|  | One stated: Women in our region are not really involved in such activities, but   |  |  |
| C4.a. Which activities? Who performs   | maybe women in Northern villages help in catching fish and throwing nets.  Moderator: How much is the percentage of youths who are participating in   |  |  |
| those activities and where?  | fishing activities?   |  |  |
| (Note to moderator: Please probe into  | One stated: Very low percentage of youths are indulging in fishing activities   |  |  |
| gender: female vs. male, age groups:   | One stated: This is due to the lack of insurances to protect this growing party in  |  |  |
| youth vs. adults vs. elderly, nationality groups: Lebanese vs. refugees)   | our community and the inconsistency of this profession.   |  |  |
| January Control of the Control of th | Moderator: Do you earn from being a technician?   |  |  |
|  | Alfred: I earn, but not enough.   |  |  |
|  | Moderator: Who had an additional profession besides fishing?  |  |  |

| C4.b. How women are involved in such activities?   | One stated: I have a pickup, in the morning I work on the pickup and in the night I go fishing in the sea. One stated: I invest in a shore Moderator: Who usually help you? One stated: My kids One stated: The majority of us are mainly fishermen (all agreed) One stated: There are high percentage of women working in such activities and especially serving in the touristic places and restaurants on the shore and managing businesses. One stated: The percentage of working women has reached equality with that of men.                      |
|--|---|
| C4.c. Which season in a year are these activities performed?   | One stated: These touristic activities are mainly performed during the three months of summer, even the licenses are seasonal ones in which as soon as summer ends, licenses will be canceled.  |
| C4.d.1. Do they earn income from those activities?   | -Yes, ofcourse  |
| C4.d.2. And do they have alternative livelihoods?  |   |
| C4.e. Do they have any major problems or sensitivities in community?   |   |
| C5.a. What other types of economic activities are available in this village?  (Note to moderator: Please probe into land-based livelihoods like farming, businesses, markets, artisans etc.) | One stated: The agricultural activity of course is highly widespread in our region along with a small percentage of industrial activities.  Moderator: Are there any craftwork? One stated: There are very talented craftsmen in our region, but they are very small in number.  Moderator: What about tourism? One stated: We have no touristic places in our village. One stated: However we are mainly renowned for our sandy shore in Okaibe, without denying the presence of all activities but with a very small of percentage of their practice. |

| aC5.b. What about those specifically located on the coastline?  (Note to moderator: please probe into beach resorts, hotels, marine tourism by tour operators, diving/surfing schools, retail/rental services of fishing supplies or sea equipmentetc.) | One stated: No diving schools present in Okaibe nor any touristic programs and due to little or no youths and adult activity and presence.  One stated: I've got a tour boat several years ago, but it didn't succeed due to poor activity.  |                   |          |
|---|--|-------------------|----------|
| C5.c. Can you give estimate shares of each of those economic activities, at the local level?  |  |                   |          |
| C6.1. Do you have any touristic site in this village?   | □Yes □ No  |                   |          |
| C6.2. If yes, what is it exactly? where is it located and do you have tour operators? Boat trips?   | One stated: It is Kanater Zbaide (قناطر زبيدة) located in Naher Ibrahim-Okaibe, accurately in a region called Al Jazaer(الجزائر).  Moderator: Do they organize boat trips and stuff like that? One stated: Neither tour operators nor boat trips are organised there. One stated: There's also the Roman Bridge الجسر الروماني, it links between Okaibe region and Nahr Ibrahim. Moderator: Are there more touristic sites? One stated: No |                   |          |
|   |  | Y/N               | Location |
| C7.Do you have any of the following in your village? If yes, please describe and indicate the location  | ee. Nature reserves  | One<br>stated :No |          |
|   | ff. Temples, palaces, castles  | One stated :No    |          |

|   | gg. Ottoman structures   | One<br>No  | stated: |   |
|---|--|------------|---------|---|
|   | hh. Museums  | One<br>No  | stated: |   |
|   | ii. Religiousheritage  | One<br>Yes | stated: | One stated: There are seven churches and many old monasteries including St. John Monastery aged more than 70 years. |
|   | <b>jj.</b> World Heritage  | One<br>No  | stated: |   |
| C8. Do you have adequate water supplies in your village?  | □Yes □ No  | 0          |         |   |
| C9. What about electricity and waste management services?  (Note to moderator: Please probe on the coastal part of the village as well) | One stated: The wastes are managed by the Sukleen company and others.  One stated: The electricity is backed up by the State and the motors available. |            |         |   |
| C10.1. In general, are the roads in your village in good condition?   | □Yes   | ] No       |         |   |

| C10.2. Are there any public transport services?  (Note to moderator: Please probe on the coastal part of the village as well)   | One stated: No particular public transportation services mainly available in the village but some buses pass on the highway daily going to Tripoli, Byblos and other nearby regions.  One stated: The railway has stopped.   |  |
|---|--|--|
| C11.a.1.What illnesses are most prevalent in your community?  | One stated: The most prevalent illnesses are cancer, blood pressure and diabetes.  |  |
| C11.a.2. And does fishing cause any health hazards?   | One stated: On the contrary One stated: The sea comforts and relaxes the human being and escapes him from life's problems.   |  |
| C11.b.Which healthcare facilities are available in your village?  (Note to moderator: Please probe into hospitals, public clinics, mobile clinics, how far they areetc.). | One stated: No hospitals and infirmaries available in our village.  Moderator: What is the nearest hospital? One stated: The nearest hospital is in Bouar region (public hospital). One stated: There are near hospitals in Jounieh and Byblos and St. Martine Byblos. Moderator: Where do you go in case of a medical instability? One stated: We go to Jounieh and Jbeil hospitals. One stated: The public hospital located in Bouar is in a deplorable and pathetic condition. Everyone who goes there stays there (dies there) (sarcastically) Moderator: Are there any mobile clinics? One stated: No there aren't. |  |
| C11.c.1. Are they reliable services?  | □Yes □ No (no healthcare facilities in our village)  |  |
| C11.c.2. If no, why not?  | One stated: The public hospital located in Bouar is in a deplorable and pathetic condition. Everyone who goes there stays there (dies there) (sarcastically) One stated: It's still new and not fully equipped One stated: It's one of the modernist buildings in Lebanon from outside but it requires loads of equipments and materials needed in a hospital.   |  |
| C11.d.1. Do they meet the communityhealthcare needs?  | □Yes □ No  |  |

| C11.d.2. If no, why notand do you think you need more healthcare facilities in the area?  | One stated: Yes definitely since first of all we don't have hospitals nor infirmaries in our region and the nearby hospitals located in Jounieh and Jbeil are costly. So if you're poor with no health insurance they won't accept you and you might die at their hospital doors.  |  |
|---|--|--|
| C12. a.1. What about the educational services?  | One stated: The educational services in our region is quite good (no negative comments in this regard)   |  |
| C12. a.2. Do you have schools/<br>training centers in your village?<br>(Note to moderator: please probe into the<br>different levels: primary schools,<br>secondary schools, universities and<br>technical schools) | One stated: We have two private schools: one primary (مدرسة إم النور), and one secondary (مدرسة مار يوحنا)   |  |
| C12.b. How do you evaluate the educational levels by age groups (youth, adults and elderly) in your communities?  | One stated: Nowadays, the youths' educational level has greatly changed from previous years. 99% of the youths are studying and pursuing their educational studies in schools and universities.  One stated: Whereas the adults' educational level is kind of poor since they've been living in a village with no awareness for education but practicing professions were the trend.  One stated: Very few elderly are educated and have the knowledge of writing and reading. |  |
| C13.1. How do you describe the safety and security conditions in your area?   | One stated: Safety conditions are secured in our area  |  |
| C13.2. Which parties play the major role(s) in this regard?   | One stated: The municipality and the state plays a major role in this regard. ( all agreed)  |  |
| C14. Are there any associations or NGOs in your community (if so what do they do?)  | One stated: No particular association present in Okaibe One stated: But there exists a renowned gym(champions in volleyball) that comprises many famous athletes from our village like George Azzi One stated: We have a coop association and we used to have an agricultural association but it stopped functioning.  |  |

| C15. What problems exist in the community?   | One stated: Politically, it's normal for everyone to favor a particular political party, but no witnessed problems. Okaibe is a very safe region.  Moderator: What about economic and social problems?  One stated: Economically, many problems are present in each and every home and family.  |  |  |
|--|---|--|--|
| THEME 3: COMMUNICATION   | N AND FEEDBACK MECHANISMS   |  |  |
| Q1. What are your most important information needs in relation to the upcoming oil exploration activity?  One stated: We are interested to know whether the fishing culture was affected, knowing that it's already affected and in a deteriorating state. We hope there'll be proceeds in return for the sea and in case of oil exister really hope our youths and people will be recruited to ensure their future stated: They shall take into consideration the fisherman and prioritize the different job opportunities. |   |  |  |
| Q2. How do you like to receive any future project updates?   | One stated: We'd like to receive any future project updates by an interview similar to the one happening now.  One stated: We'd like to receive direct phone calls as well.  Moderator: If we sent an announcement to the municipality, will you receive it?  One stated: Our reference and resort is not the municipality but the fishermen coop we're really proud of and its director. |  |  |
| Q3. Are there any stakeholders that you would recommend that we talk with?   | One stated: Our main current interest is to God be with him and bless him and if everything planned succeed we'd like to be prioritized and put on top of the list if employment vacancies are available.  One stated: If possible, we'd like to be assisted and helped in the issue concerning the port.   |  |  |
| ADDITIONAL NOTES   |   |  |  |

| • | Some fishermen were complaining about the companies that depended on chemical substances and the attacked the sea and harmed it's resources. One example he mentioned was about a company in Marin Dbaye where it released brimstones into the sewages and eventually into the sea. This activity resulted killing millions of fish.  Another mentioned example was also about throwing plenty of garbage and sewage in rivers which lead the same result and damage for the fishing culture.  One fishermen said that when fishing, strange chemicals and dirt are found in the heart of the fish and the is something deplorable since it is worsening the fishing activity.  Some other fisherman said mocking the youths and companies indulged in this oil drilling plan saying the fitheyouths need answers from the poor fishermen, then there's a huge problem here. While the interview replies saying that Total is a company specialized in Oil, and it is conducting this study in order to colle social and environmental evaluations and reach an adequate solution for all by recruiting specialists to stawith the oil drilling. |
|---|--|
|   |  |
|   |  |

TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON FOCUS GROUPS DISCUSSION GUIDE FOR FISHERMEN / ANGLERS/ FISHING HOUSEHOLDS (WOMEN)

| Name of village:   | Dbayeh   | Date of the discussion: | 30/05/2019                  |
|--|--|-------------------------|-----------------------------|
| Name(s) of attendees:  |  |                         |                             |
| Notes  | Please introduce the oil drilling active opportunity for questions and answer. |                         | nd give the participants an |
| THEME 1 DEMOGRAPHICS   | – STAKEHOLDER ENGAGEMENT A   | ND IMPACT ASSESSMENT    |                             |
| Q1. Please introduce the oil drilling activities using the BIDs and posters. Once completed give the participants an opportunity for questions and you provide an answers to their questions as far as possible. If you cannot answer then please take the stakeholders contact details and tell them you will get the answer and get back in contact as soon as possible. |  |                         |                             |
| Q2. Now, do you have questions?  |  |                         |                             |
|  | THEME 2: SOCIO-ECONOMIC  |                         |                             |
|  | H. DEMOGRAPH   | 105                     |                             |
| A.1.1. What is your name?  |  |                         |                             |
| A.1.2.What is your age?  | -26<br>-37<br>-57<br>Two stated :55<br>-33                                     |                         |                             |
| A2.1. Are you married?   | One stated : I am engaged<br>Four stated : Yes<br>One stated : I am single     |                         |                             |

| A2 2 Three hour many hide do you   | One stated : One  |  |
|--|---|--|
| A2.2. If yes, how many kids do you have?   | Three stated: Two   |  |
|  | One stated: I am from Sin El Fil  |  |
|  | One stated: I am from Broummana   |  |
| A3.1. Are you from this village?   | One stated: I am from Ashrafieh   |  |
| Activity of Hell this thinge.  | One stated: I am from Antelias  |  |
|  | One stated: I live in Zouk Mosbeh   |  |
|  | One stated . I five in Zouk Wosben  |  |
| A3.2. How long have you been residing in this village?   | Not asked   |  |
| A4. How many people live in the village?  Not asked  |   |  |
|  | [inaudible]   |  |
|  | One stated: IT in Balamand  |  |
|  | One stated: I work as an audit  |  |
| A5. What is your profession?   | One stated : I own a library  |  |
|  | One stated: I own a cab driving business  |  |
|  | One stated : Electronic   |  |
|  | B. FISHING ACTIVITIES   |  |
| B1.1. Are you/ or is anyone in your household, currently involved in fishing?  | Not asked   |  |
|  | One stated: It has two sides, commercial and recreational   |  |
|  | One stated: Each trip to the sea costs money, so it is normal that a person aims  |  |
| B1.2. What types?  | to make profit out of the fish he catches   |  |
| (Note to interviewer: please probe into  | One stated: Fishermen that go down to catch fish everyday, it is normal that  |  |
| artisanal/traditional, commercial,   | this is there profession and they are making use of it, but people that go down   |  |
| recreational)  | once a month that's would probably be just recreational fishing   |  |
|  | One stated: For me it's more of recreational fishing, but for time to time it   |  |
|  | does happen that I sell some of the fish [one agreed]   |  |
|  | does happen that I sen some of the fish [one agreed]  |  |
|  | One stated: We all have boats   |  |
|  |   |  |
| B2. What type of boats/ powerboats are you using for fishing?  | One stated : We all have boats  |  |
| are you using for fishing?   | One stated: We all have boats One stated: I don't own one, my friends have a boat and I tag along, they have  |  |
| are you using for fishing?  (Note to moderator: please probe into size   | One stated: We all have boats One stated: I don't own one, my friends have a boat and I tag along, they have a small yacht, and it's about 15 meters long   |  |
| are you using for fishing?   | One stated: We all have boats One stated: I don't own one, my friends have a boat and I tag along, they have a small yacht, and it's about 15 meters long One stated: I have two wooden fishing boats, approximately six meters each,   |  |
| are you using for fishing?  (Note to moderator: please probe into size of boat, motor/sail, number of fishermen in   | One stated: We all have boats One stated: I don't own one, my friends have a boat and I tag along, they have a small yacht, and it's about 15 meters long One stated: I have two wooden fishing boats, approximately six meters each, and another boat  |  |
| are you using for fishing?  (Note to moderator: please probe into size of boat, motor/sail, number of fishermen in   | One stated: We all have boats One stated: I don't own one, my friends have a boat and I tag along, they have a small yacht, and it's about 15 meters long One stated: I have two wooden fishing boats, approximately six meters each, and another boat One stated: I am currently making a wooden fishing boat that runs on benzene   |  |
| are you using for fishing?  (Note to moderator: please probe into size of boat, motor/sail, number of fishermen in   | One stated: We all have boats One stated: I don't own one, my friends have a boat and I tag along, they have a small yacht, and it's about 15 meters long One stated: I have two wooden fishing boats, approximately six meters each, and another boat One stated: I am currently making a wooden fishing boat that runs on benzene One stated: I have two fiber boats, one is five meters, and the other is six, they  |  |
| are you using for fishing?  (Note to moderator: please probe into size of boat, motor/sail, number of fishermen in   | One stated: We all have boats One stated: I don't own one, my friends have a boat and I tag along, they have a small yacht, and it's about 15 meters long One stated: I have two wooden fishing boats, approximately six meters each, and another boat One stated: I am currently making a wooden fishing boat that runs on benzene One stated: I have two fiber boats, one is five meters, and the other is six, they run on benzene One stated: I have a seven meter long boat that runs on benzene   |  |
| are you using for fishing?  (Note to moderator: please probe into size of boat, motor/sail, number of fishermen in each boat)  | One stated: We all have boats One stated: I don't own one, my friends have a boat and I tag along, they have a small yacht, and it's about 15 meters long One stated: I have two wooden fishing boats, approximately six meters each, and another boat One stated: I am currently making a wooden fishing boat that runs on benzene One stated: I have two fiber boats, one is five meters, and the other is six, they run on benzene One stated: I have a seven meter long boat that runs on benzene One stated: Each season has its gear [several agreed]   |  |
| are you using for fishing?  (Note to moderator: please probe into size of boat, motor/sail, number of fishermen in each boat)  B3. What are the specific fishing gears           | One stated: We all have boats One stated: I don't own one, my friends have a boat and I tag along, they have a small yacht, and it's about 15 meters long One stated: I have two wooden fishing boats, approximately six meters each, and another boat One stated: I am currently making a wooden fishing boat that runs on benzene One stated: I have two fiber boats, one is five meters, and the other is six, they run on benzene One stated: I have a seven meter long boat that runs on benzene One stated: Each season has its gear [several agreed] One stated: None of us uses nets or padded nets |  |
| are you using for fishing?  (Note to moderator: please probe into size of boat, motor/sail, number of fishermen in each boat)  B3. What are the specific fishing gears employed? | One stated: We all have boats One stated: I don't own one, my friends have a boat and I tag along, they have a small yacht, and it's about 15 meters long One stated: I have two wooden fishing boats, approximately six meters each, and another boat One stated: I am currently making a wooden fishing boat that runs on benzene One stated: I have two fiber boats, one is five meters, and the other is six, they run on benzene One stated: I have a seven meter long boat that runs on benzene One stated: Each season has its gear [several agreed]   |  |

| B4.1. What types of fish?   | One stated: When fishing on shore you can catch Marmout, Sraghis, Ajej, Frafir, and Zerrek. If you go deeper you catch, Dakar Jarbidi, Jarbidi, Behlouk, Shtroubbet, and Abou Tabloush similar to Farride, you catch Douradroz on maybe 300 meters  |
|---|---|
| В   | One stated: From Ras Beirut to Tabarja One stated: We sometimes get to Khaldeh One stated: If you are going for a deep drop [fishing at the deep] then you will go from Ras Beirut to Jounieh or Tabarja One stated: I go from Nakoura to Abdeh, i go maybe 12 meters deep One stated: There are permits you need to have, to go in between six and 12 miles you need to have a permit from the army One stated: We take it from Head of the Mina, but the army keeps track on us Moderator: Where do you usually use a fishing hook One stated: Maximum, two or three kilometeres from shore. As long as you are still under 100 meters deep you can fish with a fishing hook  |
| B5. When do you usually go for fishing?  (Note to moderator: please probe into hour, time of the day and seasons) | One stated: At times like these, if we weren't with you right now we would be at sea [they had this focus group at around 06:30 P.M.], and we stay out until maybe 03:00 A.M.  One stated: Timing differs according to seasons  One stated: If we wanted to go fish Jarjara, we need to eiher go really early in the morning, or late in the afternoon  Moderator: What differs in winter? Does anything change?  One stated: In winter we usually didn't try to fish, because the Mina used to be open, so we don't know. We usually bring our boats down starting April 25 <sup>th</sup> .  Now the port is more secure so maybe we can leave our boats in until November maybe  One stated: It differs from port to port |
| B6. How much fish do you catch on an average fishing trip?  | One stated: I usually fish for Marmour, so at least you can have five or six kilos u until ten or 12 kilos depends on the time you spend at sea.  One stated: We fish out more than 100 kilos  Moderator: So you have the same boat size but you fish out more because you use a trolley  One stated: Yes  Moderator: So what is the maximum weight you've reached?  One stated: Today we don't fish out as much as we used to maybe 20 years ago  One stated: In the season where Abou Sin is out, we might catch seven or eight fish, each one weighs minimum one kilo  |
| B7. How do you preserve the fish?  (Note to moderator: ice or smoked, other?)                                     | One stated: We sell them One stated: We sell them or eat them One stated: No one process it   |

|   | One stated: If someone is going at night, he can't go alone he needs help, it's   |  |
|---|---|--|
|   | rare to find someone going alone at night   |  |
|   | One stated : I take my freinds  |  |
|   | Moderator: How many are they?   |  |
|   | One stated: I sometime go with one, or two friends                                |  |
|   | One stated: I go alone, i take no one with me                                     |  |
| B8. Does anyone help you with fishing?  | One stated: I usually go by myself, but like he said if i'm going at night I take |  |
| bot bots uniform near you with histories.   | someone with me   |  |
| (Note to moderator: please probe into who are the crew members if any e.g family  | One stated: If we dive we would be two  |  |
| members, poorer members of community,   | One stated: I take my brother with me   |  |
| refugees)   | One stated: My father tags along sometimes  |  |
|   | One stated: I take my uncle with me   |  |
|   | Moderator: Do you help each other out? Or is it every fisherman for himself?      |  |
|   | One stated: Of course we cooperate in everything, maybe in taking the fish out    |  |
|   | of the sea, give each other bait  |  |
|   | Moderator: But we are not talking about nets here right?                          |  |
|   | One stated: No, no one of us uses nets  |  |
|   | [Inaudible]   |  |
| B8.a. If yes, what is their role? How do they exactly help you?                   | Not asked   |  |
| B8.b. How females are involved in fishing? Are there gender differentiated roles? | Not asked   |  |
| B8.c.1. Are there any similar examples in community?                              | Not asked   |  |
| B8.c.2. What are the roles of people engaged in fishing in your community?        | Not asked   |  |

| B9. What type of fish do you catch and what do you do with the fish catch?   | Not asked  |  |  |
|--|--|--|--|
| B9.a. Are these goods for sale/ Used for own consumption/ For leisure? If for sale, please describe how.  (through a cooperative, wholesaler, street vendors, how much per kilo) | One stated: We give some out One stated: You need to know something about fishing, if we are talking just as anglers, this job is not sustainable it is more of a hobby than a job, if you want to talk about sustainability, you then talk about the use of nets and traps  |  |  |
| <b>B9.b.1.</b> How do you advertise your fish?   | Not asked  |  |  |
| B9.b.2. Who is involved in the marketing and sales process?  (Note to moderator: please probe into the roles of men vs. women in the household)                                  | Not asked  |  |  |
| B9.c. Are there markets available for fishermen/ individuals conducting marine activities to sell their fishes/products/ services?   | One stated: Yes [several agreed] Several stated: We sometimes have our own customers to sell, we sell friends One stated: We sell fisheries Moderator: How much would you sell a kilo? One stated: You have a margin between 5,000 and 45,000 LBP Moderator: So you don't need to advertise your fish One stated: The local fish are in high demand, because it is tastier, eventhough there is competition, people want to eat local fish, that is why you sometimes find fish that are very expensive. Some of those fish are almost extinct |  |  |
| B9.d.1. Do you/ or does any household member earn any income from fishing?   |  |  |  |
| B9.d.2. If yes, what is its share from the total household income?   | Not asked  |  |  |

| B9.d.3. Do you have any alternative livelihood activities that you undertake alongside fishing?  | All stated: Yes of course  Moderator: If we want to discuss the expenses you pay for fixing and repairs One stated: The revenues we get from fishing doesn't cover it we need to pay more out of our own pockets Moderator: How much would you pay? One stated: I will give you the example of fishing for Marmour. If I want to fish for Marmour, I have to go to Jounieh, I will need three cans of worms which cost 30,000 LBP, and a half of tank of benzene, so that's 45,000 LBP per night for both worms and benzene, that's a minimum besides repairs, fishing hooks Moderator: How much would you make? One stated: I catch between five to eight kilos of fish One stated: A tuna fishing trip costs about 200 USD for Benzene only One stated: Benzene expenses are huge |  |
|--|---|--|
| B10. Approximately, how many fishermen are there in your village (as a livelihood or as a recreational activity please specify)?   | One stated: The fishermen cooperative has about 260 members, but not all members own boats  Moderator: How many boats are there?  One stated: This question you will have to ask to the head of the cooperative we are not authorized to say  Moderator: If we want to talk about recreational fishing, are there a lot of boats for that?  One stated: Yes, there's about 200 maybe  One stated: They go on seasons, they start to bring there boats now at this time of year and they take them out by the end of summer  |  |
| B11.1. From your experience, what problems at seas are there?  | One stated: Fish decreased these days, there isn't as much fish anymore. We used to catch shrimp or [incomprehensible], but we don't anymore. I fish Marmour, but it's been two years since I've fished any, I don't know why. All I know is that there is some sort of black sand, maybe oil residues, they come from the power company, so you can't fish Marmour from there until Dbayeh. Last year I've only fished maybe seven or eight fish, I pay 50,000 LBP per trip and all I get are two or three fish One stated: The large quantity of fishermen. They sometimes make trouble. Moderator: So they do them on purpose  |  |
| B11.2. What changes have you noticed over the years?  (Note to moderator: please probe into safety, equipment, pollution, fish stock (plenty of fish or few fish)etc.)   | [Note that while the moderator was asking question B11.1 he merged question B11.2 with it]  |  |
| B12. What are the factors that positively and negatively influence fishing activities in your area?  (Note to moderator: please probe into problems faced by fishermen in this village, work conditions and welfare) | One stated: No there isn't any factors that influence fishing positively [several agreed] One stated: Something can be done though, they can make fish farms. Sometimes fish eggs don't survive in the natural habitat that they were laid in,  |  |

so due to fish farms they can re-place them to somewhere fish egg-friendly, and when the hatch they can bring them back to sea.

One stated: I saw it with my own two eyes, they catch small fish with nets and then throw them at the surface, so fish aren't growing like they should.

One stated: In lebanon we have something that is called Guerguere, which is a net with very small netting, they throw it in and use a light, and take out the fish when they're still very small. A fish that could grow from here to there [the participant most probably did a hand gesture] is getting taken out when it's still small.

One stated: This is a subject that we specialized in at Fishermen Lebanon. Other than global warming, pollution, and trespassing marine property, we see all of those walls and resorts being build up next to shore, and this affects fish culture. Let's not forget that a lot of our beaches in Lebanon are either sand or rock beaches. Rocks are where fish gather, and most of the rocks are near shore, where they build those walls or resorts. We also face reckless fishing

#### C. SOCIO-ECONOMIC INDICATORS AT THE LOCAL LEVEL

## C1. How would you describe the current coastal resource conditions in your community?

One stated: The most important thing we have in Lebanon is wind current, in some part you might not have any waste, in other places it might be filled with waste. It all depends on how the current moves the waste

Moderator: What happens then?

One stated: The water becomes troubled

One stated: Pollution and reckless fishing [several agreed]

One stated : Guerguere

measures

One stated: There should be some sort of law enforcement regarding this matter

One stated: There is a page on Facebook called Sohhit Sayadeen Rmeish, they post on a daily basis what is the length of the fish that fishermen can catch. For example the legal length of Brak [type of fish] is 26 centimeters. Here fishermen catch them when they're maybe ten centimeters long One stated: That is the context of reckless fishing and not abiding by the law One stated: There was this video posted by this page of someone that is throwing is net at a depth of ten meters, and it was sent to the Agriculture Municipality that is supposedly responsible for fishing, yet they never took any

## C2. What are the top 3 major threats to the health of coastal resources in your community?

One stated: The government is very neglecting towards this field of work, because this profession is not even specified, we don't have social security, if god forbids a fisherman needed to go to the hospital, he will pay his year's profit for only one night at the hospital. We need social security. Why won't every fisherman be registered in social security, we need to have our rights preserved, we at least need hospitalization, we face many dangers in our job. I personally have faced life threatening events, no one knows what might happen. So as a company that is benefiting with millions from this project, how will it compensate for us

Moderator: The paper you hold in hand has an email that you can send to whatever question comes to mind, or whatever complaint you might have

| C3. Who do you identify as vulnerable in your community?  | One stated: All of the fishermen are considered from the poor class, no fisherman can only make a living out of fishing One stated: Fishermen and liberal professions, my dad is a carpenter for example. All local carpenters and blacksmiths are considered poor. They don't have a social security, nor do they have an old age security, and on top of that they have to deal with foreign competition |  |  |
|---|--|--|--|
| C4. Besides fishing, are there any  |  |  |  |
| other marine activities available in this village?  | One stated: Yes, we have sand extractors, they are located in Nahr El-Kalb One stated: We have worm collectors   |  |  |
| (Note to moderator: Please probe into boat repairing, net making, collecting seashells, sand extraction, salt extraction, sea worm collection, molluscs or small fish collection, rubbish scavengersetc.) | One stated: Salt extraction and sea worm collections don't hurt the sea, there's a certain way they can do those things to not hurt or damage the sea  |  |  |
| C4.a. Which activities? Who performs those activities and where?  |  |  |  |
| (Note to moderator: Please probe into gender: female vs. male, age groups: youth vs. adults vs. elderly, nationality groups: Lebanese vs. refugees)   | Not asked  |  |  |
| C4.b. How women are involved in such activities?  | One stated: No One stated: I have been seeing many female teenagers recently that are getting involved One stated: Are you talking about fishing? Moderator: All sort of marine activities One stated: We have diving, canoeing, sailing Moderator: Do you have any touristic trips? One stated: Yes Moderator: Approximately how many boats are there for tourism? Several stated: I don't know           |  |  |
| C4.c. Which season in a year are these activities performed?  | Not asked  |  |  |
| C4.d.1. Do they earn income from those activities?  | Not asked  |  |  |
| C4.d.2. And do they have alternative livelihoods?   | Not asked  |  |  |

| C4.e. Do they have any major problems or sensitivities in community?  | Not asked  |                  |                    |
|---|--|------------------|--------------------|
| C5.a. What other types of economic activities are available in this village?  |  |                  |                    |
| (Note to moderator: Please probe into land-<br>based livelihoods like farming, businesses,<br>markets, artisans etc.)   | Not asked  |                  |                    |
| C5.b. What about those specifically located on the coastline?   | One stated : Yes we l  | have a diving sc | hool, and canoeing |
| (Note to moderator: please probe into beach resorts, hotels, marine tourism by tour operators, diving/surfing schools, retail/rental services of fishing supplies or sea equipmentetc.) | Moderator: Do you know how many fishermen are there in this area?  One stated: Thousands, way too many  One stated: Professional fishermen are not that much, but recreational fishers are plenty          |                  |                    |
| C5.c. Can you give estimate shares of each of those economic activities, at the local level?  | Not asked  |                  |                    |
| C6.1. Do you have any touristic site in this village?   | ☐ Yes ☐ No One stated: As tourism we can say that we have those boat touristic trips One stated: We have diving trips One stated: Trips that go around Nahr El-kalb One stated: We also have fishing trips |                  |                    |
| C6.2. If yes, what is it exactly? where is it located and do you have tour operators? Boat trips?   | Not asked  |                  |                    |
|   |  | Y/N              | Location           |
| C7. Do you have any of the following in your village? If yes, please describe and indicate the location   | <b>kk.</b> Nature reserves   | N                |                    |

|  | II. Temples, palaces, castles    | N                | One stated : Castles we have the castle in Jbeil |
|--|----------------------------------|------------------|--|
|  | <b>mm.</b> Ottoman<br>structures | N                |  |
|  | <b>nn.</b> Museums               | N                |  |
|  | <b>oo.</b> Religious heritage    | N                |  |
|  | <b>pp.</b> World Heritage        | N                |  |
| C8. Do you have adequate water supplies in your village? | ☐ Yes ☐ No One stated: Yes we    | have a big water | pressure   |

|  | [inaudible they were all laughing]   |
|--|--|
|  | One stated: I think it's the same in all of Lebanon [several agreed]             |
|  | One stated: We dealt with a problem here in Keserwan when the whole waste        |
|  | management issue occurred in Burj Hammoud. We got swamped with waste             |
|  | because it was dealt in an unorganized way. And that waste dump already has a    |
|  | huge negative influence on all generations that will come later on.              |
|  | Moderator: What was the effect on you?   |
|  | One stated: The water there is always black                                      |
|  | One stated: You can't even stand   |
|  | One stated: Water there has no longer any life. The dump is full now and there   |
|  | is no more room to dump waste. If this matter isn't treated in a correct way.    |
|  | We have over two million refugees that are dumping their waste in the river.     |
|  | And Lebanon's infrastructure isn't big enough to contain our waste, let along    |
| C9. What about electricity and waste management services?                    | two other millions. There isn't any functional treatment for water, electricity, |
| _  | sewage   |
| (Note to moderator: Please probe on the                                      | One stated: Do you think that this project will come back with benefits on the   |
| coastal part of the village as well)   | country concerning these maters?   |
|  | Moderator: The project will bring back revenues, but that concerns the           |
|  | government   |
|  | One stated: The problem is that revenues go straight to the government, so the   |
|  | people won't benefit from them, and I think we can all agree on that             |
|  | One stated: If we talk about this project and its impact on fishermen, just like |
|  | you said they will no longer be able to fish in certain zones, and the           |
|  | environmental impact might endanger fish culture                                 |
|  | One stated: I personally think that fishermen won't get affected by the          |
|  | prohibited zones, because no fisherman goes that deep into the sea, he aid that  |
|  | it will be between six and 12 kilometers from shore, no one goes that deep.      |
|  | One stated: We might not reach that deep, but any oil leakage or the building    |
|  | of platforms can endangers our work  |
|  |  |
|  |  |
| C10.1. In general, are the roads in your village in good condition?          | ☑ Yes ☐ No   |
| your vinage in good condition:   |  |
|  |  |
| C10.2. Are there any public transport  |  |
| services?  |  |
|  |  |
| (Nata to made devetory Plance mucho on the                                   |  |
| (Note to moderator: Please probe on the coastal part of the village as well) |  |
|  |  |
|  | Several stated : Cancer  |
| C11.a.1. What illnesses are most   | One stated : Heart diseases  |
| prevalent in your community?   | One stated : Diabetes  |
|  | One stated . Diabetes  |
|  |  |

| C11.a.2. And does fishing cause any health hazards?   | One stated: On the contrary, it boosts your health One stated: There are some exceptional cases where maybe a fishhook might get stuck in a man's arm   |  |
|---|---|--|
| C11.b. Which healthcare facilities are available in your village?   | One stated: We have hospitals, clinics Moderator: What is the closest hospital here?  |  |
| (Note to moderator: Please probe into hospitals, public clinics, mobile clinics, how far they areetc.).   | One stated : Abou Jaoude Hospital One stated : Saydit Lebanon Jounieh   |  |
| C11.c.1. Are they reliable services?  | One stated: The hospitals that are well known and trusted are far Moderator: Such as? One stated: Bellvue it's in Mansourieh, Hotel Dieux, AUB Moderator: how much time would you need to get there One stated: If there's traffic you need maybe two hours |  |
| C11.c.2. If no, why not?  | Not asked   |  |
| C11.d.1. Do they meet the community healthcare needs?   | ☐ Yes ☐ No One stated: If we wanted to talk about governmental hospitals, no they don't   |  |
| C11.d.2. If no, why not and do you think you need more healthcare facilities in the area?   | Several stated : Yes of course  |  |
| C12. a.1. What about the educational services?  | Not asked   |  |
| C12. a.2. Do you have schools/<br>training centers in your village?<br>(Note to moderator: please probe into the<br>different levels: primary schools, secondary<br>schools, universities and technical<br>schools) | One stated: Yes they are all available [all agreed] One stated: Public schools need to be renovated, so that we can put our children in them and not pay our life's work as school fees   |  |

|  | One stated: If we want to talk about this area specifically, the youth are all    |  |  |
|--|---|--|--|
| C12.b. How do you evaluate the educational levels by age groups (youth, adults and elderly) in your communities? | educated  |  |  |
|  | One stated: The rate is high, but you need to see how many people are getting     |  |  |
|  | hired in their line of education  |  |  |
|  | One stated: The rate decreases when it comes to adults and elderly, but we        |  |  |
|  | don't have any illiteracy   |  |  |
|  | One stated: The generation before us surely didn't get the education they         |  |  |
|  | wanted due to war   |  |  |
|  | One stated: There is safety but there's no law                                    |  |  |
|  | One stated: Crimes do occur but not in big quantities                             |  |  |
|  | One stated: Law enforcement is practically non-existent at sea because they       |  |  |
|  | don't have the right equipment, such as boats, and if equipment were              |  |  |
|  | available, they lack maintenance and essentials                                   |  |  |
|  | One stated: There isn't any safety, you feel that safety is only applied in       |  |  |
| C13.1. How do you describe the safety and security conditions in your area?                                      | certain cities  |  |  |
| and security conditions in your areas  | Moderator: How come?  |  |  |
|  | One stated: We have certain places here in Keserwan where safety is               |  |  |
|  | available, meanwhile in other places such as Bekaa, it lacks security             |  |  |
|  | [inaudible]   |  |  |
|  | One stated: There are a lot of people who are wanted and the government           |  |  |
|  | knows who they are and where they are, but they keep on roaming free              |  |  |
|  |   |  |  |
| C13.2. Which parties play the major role(s) in this regard?  | Not asked   |  |  |
|  | One stated: Yes, we have Work Vision, Granuble, New Heights                       |  |  |
| C14. Are there any associations or   | Moderator: What do they do?   |  |  |
| NGOs in your community (if so what do  | One stated: They do social awareness on illnesses, hygiene, sexual assault,       |  |  |
| they do?)  | everything related to assaults. They care for helping the children with their     |  |  |
|  | education   |  |  |
|  | One stated : Financial problems   |  |  |
|  | One stated: Economical problems   |  |  |
| C15. What problems exist in the  | One stated: Lack of job opportunities, and if you do find a job then it would be  |  |  |
| community?   | of low wage.  |  |  |
|  | One stated: And if we want to talk about the problems a fisherman faces, then     |  |  |
|  | theres is a very low income   |  |  |
| THEME 2  | COMMUNICATION AND FEEDBACK MECHANISMS   |  |  |
| IIIEME 3   | One stated: The important thing is that this project benefits the entire country, |  |  |
| Q1. What are your most important   | the sea, fishermen, and fish, it shouldn't have any damages, not even a one per   |  |  |
| information needs in relation to the   | cent. It should have a positive effect not a negative effect                      |  |  |
| upcoming oil exploration activity?   | One stated: As long as Total brought us in here today, and it cares for our       |  |  |
|  | opinions, then I advise it to collaborate with the Agriculture Municipality, and  |  |  |
|  | the Fishermen cooperative, to do what's best for the fishermen                    |  |  |
|  | the rishermen cooperative, to do what s best for the fishermen                    |  |  |

|  | someone from Total, that way we can discuss the current and future situation of the project, and whatever we can help with, we are more than happy to   |
|--|---|
| Q3. Are there any stakeholders that you would recommend that we talk with? | One stated: It would be really good if we could sit down with the CEO or  |
| Q2. How do you like to receive any future project updates?                 | Two stated: In a meeting similar to this one One stated: They can create a Facebook page  |
|  | One stated: It is very important that they provide us with jobs, if there is going to be damages, they should provide job opportunities instead. We can be boat taxis, if they need people to drive people or things, then they shouldn't bring in stangers, they should uses us  One stated: Even though fishermen might not all be competent to work on this project, they can work the things they do know how to do, because they know the sea. Especially that there are some seasons where a fisherman cannot fish, so he would be making use of his time and making money at the same time One stated: Leaving fishermen out of this, Total can provide jobs for Lebanese, maybe working in their gas stations. I see many foreigners that work in the stations  One stated: There are some stations that are completely run my Total, and usually the employees are all foreigners  One stated: Total can help create an education regarding the idea of a gas station worker, it's not shameful, it just needs a new set of mind |

# TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON FOCUS GROUPS DISCUSSION GUIDE FOR FISHERMEN / ANGLERS/ FISHING HOUSEHOLDS (WOMEN)

| Name of village:      | Anfeh   | Date of the discussion: | 21/05/2019   |
|-----------------------|---|-------------------------|--|
| Name(s) of attendees: |   |                         |  |
| Notes                 | <ul> <li>While the interviewer was explaining the negative side effects that could occur, polluting the sea with oil specifically, one of the attendees interrupted to give him the example of 2006 when Israel bombed the oil in Jiyeh, they found the next day traces of oil in Anfeh. [everyone agreed to this] The interviewer responded that there is an email where they can give their complaints and ask questions, which will be studied and evaluated. Then they will get back to the people with suggestions on how to deal with the matter at hand.</li> <li>The interviewer said at the end of the session if there are any questions they would like to ask. Nevertheless, none of the attendees asked anything, so he reminded them with the email that they can find on the paper in hand where they can ask any</li> </ul> |                         | Ily, one of the of 2006 when Israel ay traces of oil in er responded that implaints and ask. It is then they will get deal with the matter if there are any none of the im with the email that |

| THEME : DEMOGRAPHICS   | L – STAKEHOLDER ENGAGEMENT AND IMPACT ASSESSMENT                                    |
|--|---|
| Q1. Please introduce the oil drilling activities using the BIDs and posters. Once completed give the participants an opportunity for questions and you provide an answers to their questions as far as possible. If you cannot answer then please take the stakeholders contact details and tell them you will get the answer and get back in contact as soon as possible. |   |
| Q2. Now, do you have questions?  |   |
|  | THEME 2: SOCIO-ECONOMIC OVERVIEW  |
|  | I. DEMOGRAPHICS   |
| A.1.1. What is your name?  |   |
| A.1.2.What is your age?  | -64<br>-70<br>-63<br>-60<br>-55<br>-38<br>-65                                       |
| A2.1. Are you married?   | All stated: yes we are  |
| A2.2. If yes, how many kids do you have?   | Two stated: four One Stated: two Two stated: three One Stated: one One Stated: five |
| A3.1. Are you from this village?   | All stated: yes   |
| A3.2. How long have you been residing in this village?   | All stated: more than ten years [all of them have been residing in this village]    |

| A4. How many people live in the village?   | One stated: We have approximately 6,000 people that are from Anfeh, and between 3,700 and 3,800 that currently live here. [they all said the same] Interviewer: Where are the rest of the 6,000? One stated: they immigrate to America [they all agreed]   |  |  |
|--|--|--|--|
| A5. What is your profession?   | All stated: fisherman  |  |  |
|  | B. FISHING ACTIVITIES  |  |  |
| <b>B1.1.</b> Are you/ or is anyone in your household, currently involved in fishing?   |  |  |  |
|  | One Stated: Fishing by using nets, all types of nets [they all agreed]. It is commercial fishing [they all agreed]. One Stated: It is our source of living One Stated: Right now, we are facing difficulties in fishing, because of  |  |  |
| B1.2. What types?  | the municipality.  |  |  |
| (Note to interviewer: please probe into artisanal/traditional, commercial, recreational)   | Interviewer: Why One Stated: Because of organizing fishing, to protect fish. One Stated: They want to secure fish, or at least that's what it looks like [said sarcastically] Interviewer: Is there a law that backs it up? One Stated: There is what can be considered a law, and in Lebanon  |  |  |
| B2. What type of boats/ powerboats are you using for fishing?  (Note to moderator: please probe into size of boat, motor/sail, number of fishermen in each boat) | specifically, you chose the parts of the law that you want to apply.  One Stated: Fishing boats that are made of wood [they all agreed] One Stated: Mine is seven meters long One Stated: Mine is eight One Stated: Mine is 11 One Stated: Each boat differs from another, it comes down to the number of fishermen One Stated: My boat is 11 meters long so I have nine fishermen on board One Stated: I have five fishermen, myself plus four others, that is what my fishing papers say I should have on board One Stated: It differs, you can have one or two maybe five One Stated: Depends on the business |  |  |
| B3. What are the specific fishing gears employed?  (e.g. hook and line, traps, nets, diving gears, dynamite etc)   | One Stated: Nets One Stated: Padded nets One Stated: Nets that are smaller than 20 millimeters are prohibited. In order for small fish to not get caught. One Stated: Cages Interviewer: So you are not involved in any diving procedure One Stated: It depends for example I dive when using the net. Depends on the type of net. I place the net and remove it while I am under water.   |  |  |

|  | Interviewer: what is the length of the surface that you throw your nets    |
|--|--|
|  | at?  |
|  | One Stated: About 50 meters [one replied to that question]                 |
|  | One Stated: The same length as the net                                     |
|  | One Stated: Depends on the length of the net, mine is 500 meters long      |
|  | One Stated: Lekkouz  |
|  | One Stated: Jarbidi  |
|  | One Stated: Abou chawke  |
|  | One Stated: Marmour  |
|  | One Stated: Barnida  |
| B4.1. What types of fish?  | One Stated: Basically all the types of fish you see in markets, and the    |
|  | quantity depends on the season   |
|  | Interviewer: If you want to categorize fish by season what would we        |
|  | have?  |
|  | One Stated: In winter we have Barnida [the rest was inaudible]             |
|  | One Stated: The warmer the water the more fish there will be               |
|  | One Stated: Every day is spent at a certain spot [they all said the same]  |
|  | One Stated: We have a strategy, someone would go to the right              |
|  | another to the left another upwards another downwards.                     |
|  | One Stated: I work right next to my house                                  |
|  | One Stated: I work from Alloun until Al Cheka near Al Nouriyeh             |
|  | One Stated: Fishing from shore depends on the type of fish, sometimes      |
|  | we could go 100 meters from the shore, and sometime we could go for        |
|  | about 4 or 5 miles.  |
|  | Interviewer interrupted: So 5 miles is the furthest point you reach, so if |
| <b>B4.2.</b> Where do you go for fishing?                        | there was work beyond that distance you would not mind                     |
| (Note to moderator: please probe into                            | One Stated: No [they all agreed]   |
| distances in kilometers, near/ far from shore                    | Interviewer: So you sometimes go 500 meters from shore, and do you         |
| (for anglers in specific), also ask if they fish from the shore) | catch the same fish you would catch on shore?                              |
| Trom the shorey  | One Stated: No each depth has its catch, it all depends on the fish [two   |
|  | of the participants answered that question]                                |
|  | Interviewer: Does anyone of you fish right on the shore using a fishing    |
|  | hook?  |
|  | One Stated: No, that is more of a hobby                                    |
|  | Interviewer: Does anyone of you uses fishing hooks in the middle of the    |
|  | Sea? One Stated: Ves. but the depth of the sea would be about 500 meters   |
|  | One Stated: What we do is that we tip up several books together using      |
|  | One Stated: What we do is that we tie up several hooks together using      |
|  | a plastic thread so they reach the bottom of the sea.                      |

|  | One Stated: Morning   |
|--|---|
|  | One Stated: Morning One Stated: At night                                  |
|  | One Stated: It depends  |
| B5. When do you usually go for fishing?  | ·   |
| (Note to moderatory places and a interference                                    | One Stated: Some go in the morning, others go at dawn                     |
| (Note to moderator: please probe into hour, time of the day and seasons)         | One Stated: I would go from 02:30 P.M. and would return home by           |
| ,  | 08:00 or 09:00 A.M.   |
|  | One Stated: I would go from 05:00 P.M. until 05:00 A.M.                   |
|  | One Stated: I would go from 05:00 A.M. until 08:00 A.M.                   |
|  | One Stated: I would go from 12:00 A.M. until 07:00 A.M.                   |
|  | One Stated: It could be five or six kilos per trip                        |
|  | One Stated: It could be 30 kilos  |
|  | One Stated: We could come back empty handed because a sea lion            |
|  | tore the net  |
|  | One Stated: Sometimes it could be up to 200 kilos                         |
|  | Interviewer: when is the season where fish fill the sea?                  |
|  | One Stated: June and July.  |
|  | One Stated: Nowadays the sea has changed and we can't know for            |
| B6. How much fish do you catch on an   | sure, for example in three days I only fished what was worth 50,000       |
| average fishing trip?  | LBP. The reason is that there are many people in this business.           |
|  | One Stated: The way people fish is reckless; there is no more fish in the |
|  | sea. [outraged]   |
|  | One Stated: Fish is extinct [said in a sarcastic/disappointed way]        |
|  | One Stated: We used to place nets, now we no longer can because of        |
|  | the municipality  |
|  | Interviewer: So when does the fishing season get better?                  |
|  | One Stated: When the water gets warmer [one replied to that question]     |
|  | One Stated: Spring time   |
|  | One Stated: The best season for fishing is from spring to autumn          |
|  |   |
| B7. How do you preserve the fish?  |   |
| (Note to moderator: ice or smoked, other?)                                       | One Stated: No, we sell it right after fishing it [they all agreed]       |
| (Note to moderator. Ice of Smoked, other!)                                       |   |
|  |   |
|  | One Stated: Yes, we have workers that help                                |
|  | One Stated: Other fishermen   |
|  | Interviewer: Are they all from Anfeh?                                     |
| B8. Does anyone help you with fishing?   | One Stated: Yes [they all agreed]   |
|  | One Stated: Some are family members, others are just workers              |
| (Note to moderator: please probe into who are the crew members if any e.g family | One Stated: My brother, other fishermen                                   |
| members, poorer members of community,  | Interviewer: Are the workers Lebanese?                                    |
| refugees)  | One Stated: Yes they are all Lebanese [they all agreed]                   |
|  | One Stated: My two sons   |
|  | One Stated: I work on my own, my brothers used to help me, but now        |
|  | they are each in a different place  |
|  | and duction a amorotic place  |

|  | One Stated: I work on my own too, sometimes my brother tags along One Stated: I work on my own One Stated: If I catch fish, Chawki here helps me One Stated: Friends help each other One Stated: We cannot hire foreign workers to help, workers have to be Lebanese and in hold of their fishing papers according to the Lebanese law |
|--|--|
| B8.a. If yes, what is their role? How do they exactly help you?  | One Stated: One would throw the net in the sea, another would pull it, and another would be in charge of setting the boat right above the thrown net   |
| B8.b. How females are involved in fishing? Are there gender differentiated roles?  | One Stated: There are no female fishermen One Stated: Back in the days, if I needed help I would call my wife and kids and they would come and help me   |
| B8.c.1. Are there any similar examples in community?   | [not asked]  |
| B8.c.2. What are the roles of people engaged in fishing in your community?   | One Stated: A fishermen is one of the most vulnerable parties in society One Stated: Currently we are the weakest link One Stated: We do not have social security One Stated: What we make sometimes is not enough to buy one pack of medication One Stated: Currently a fisherman is considered poor                                  |
| B9. What type of fish do you catch and what do you do with the fish catch?   | One Stated: All kinds of fish One Stated: We sell them One Stated: sometimes sell each other fish, depends on the market's need One Stated: I sell him the fish at a retail price, and he would sell them at the market price  |
| B9.a. Are these goods for sale/ Used for own consumption/ For leisure? If for sale, please describe how.  (through a cooperative, wholesaler, street vendors, how much per kilo) | One Stated: For sale, each one has his own shop where we sell the fish. Sometimes we sell it to the fish market [they all stated the same]   |

| <b>B9.b.1.</b> How do you advertise your fish?  | One Stated: We don't [they all agreed]  |
|---|---|
| B9.b.2. Who is involved in the marketing and sales process?  (Note to moderator: please probe into the roles of men vs. women in the household) | Interviewer: Do you sell your fish in person One Stated: Yes [they all agreed]  |
| B9.c. Are there markets available for fishermen/ individuals conducting marine activities to sell their fishes/products/ services?              | Interviewer: So there are no markets for your produce. You sell them by yourselves or through local retailers. All stated: Yes  |
| B9.d.1. Do you/ or does any household member earn any income from fishing?  | ☐ Yes ☐ No One stated: i work at the municipality too.  |
| B9.d.2. If yes, what is its share from the total household income?  | [Answered below]  |
| B9.d.3. Do you have any alternative livelihood activities that you undertake alongside fishing?   | One Stated: Yes, I work at the municipality One Stated: No that's my only income [more than one said this] Interviewer: Isam since you have another job, how much expenses does the income you get from fishing covers? Isam stated: It covers approximately 50% of the expenses Interviewer: if I want to talk about the expenses for fishing procedures how much would you say it might cost you? One Stated: Sometimes it could cost 10% of the income, sometimes it could cost 100% One Stated: Approximately 40% of the yearly income would go as expenses for the boat, and 60% goes to the fishermen's pocket [more than one agreed] |
| B10. Approximately, how many fishermen are there in your village (as a livelihood or as a recreational activity please specify)?                | One Stated: Between 80 and 100 One Stated: There are 64 boats, multiply it by two One Stated: We have approximately 30 fishermen that have nothing but fishing, the rest are retired soldiers   |

|  | ntanziowari. And if we want to talk about needle that as fishing itset for |
|--|--|
|  | nterviewer: And if we want to talk about people that go fishing just for   |
|  | un   |
|  | One Stated: They are countless [laughing]                                  |
|  | One Stated: We said we have 64 fishing boats in Anfeh, multiply that by    |
| te   | en, that would be the number of boats people use to fish for fun.          |
| C  | One Stated: The nets could disappear, you could throw a net but never      |
| ta   | ake it out of the water, due to weather                                    |
| B11.1. From your experience, what  | One Stated: We need social security  |
| problems at seas are there?  | One Stated: Reckless fishing, every fishing that is illegal                |
| C  | One Stated: Dynamite, poison, everything that is illegal                   |
| C  | One Stated: Fish are becoming extinct                                      |
|  | One Stated: I speak as a diver, the bottom of the sea changed severely.    |
| B11.2. What changes have you noticed   | There used to be types of plants that we saw ten years ago on the          |
| over the years?  | pottom of the sea, that no longer exist today. The quantity of fish we     |
| (Note to moderator: please probe into  | used to see is no longer available. We used to see some types of fish      |
| safety, equipment, pollution, fish stock (plenty of fish or few fish)etc.)                 | right on shore, now we have to go 5 miles deep to see them.                |
|  | One Stated: The sea is polluted, the majority of fish is becoming extinct  |
| C  | One Stated: Pollution  |
|  | One Stated: The plants that no longer exist at the bottom of the sea       |
|  | One Stated: Diving at night and using projectors, this is a reason why     |
|  | ish are leaving.   |
| <b>B12.</b> What are the factors that positively and negatively influence                  | One Stated: The municipality is currently affecting us negatively          |
|  | One Stated: There are no positive factors at this moment                   |
| (Note to moderator: please probe into  | One Stated: They reopened the refinery a few days ago and it was the       |
| problems faced by fishermen in this village,   | cherry on top of the cake  |
| work conditions and welfare)   | nterviewer: What are they throwing in the sea now, and how deep is         |
| th   | he refinery?   |
| C  | One Stated: They are throwing everything, not just from Anfeh from         |
| C  | Chekka as well, and it is plunged 500 meters deep in sea [They all         |
|  | agreed]  |
|  | OCIO-ECONOMIC INDICATORS AT THE LOCAL LEVEL                                |
|  | One Stated: The conditions are terrible, and fishermen don't have          |
|  | anything set up in order for the conditions to be any good. The port, the  |
| C1. How would you describe the   | area, and the resources we use in fishing are not equipped.                |
| current coastal resource conditions in   | nterviewer: What are the port's problems?                                  |
|  | One Stated: The port needs renovation. The amount of sand in it has,       |
|  | eft at some spots 10 to 15 centimetres of water underneath the boats.      |
|  | The boats are getting bigger and bigger, but the port is staying the       |
|  | same.  |
|  |  |
| C2. What are the top 3 major threats to  | One Stated: Reckless fishing, people that are fishing yet they are not     |
| C2. What are the top 3 major threats to the health of coastal resources in your community? |  |

|  | One Stated: Nowadays, everyone who is poor is vulnerable               |
|--|--|
| C3. Who do you identify as vulnerable  | Interviewer: Let's consider Anfeh as the community                     |
|  | One Stated: Fishermen [they all agreed]                                |
| in your community?   | One Stated: Fishermen are the poorest of the poor                      |
|  | One Stated: No don't have a social security                            |
|  | One Stated: We work in summer, and then in winter we stay at home      |
| C4. Besides fishing, are there any   |  |
| other marine activities available in this village?   | One Stated: No [they all agreed]                                       |
| tills villager   | One Stated: We get people to fix our boats                             |
| (Note to moderator: Please probe into boat   | One Stated: We make and fix our nets with our bare hands               |
| repairing, net making, collecting seashells,<br>sand extraction, salt extraction, sea worm | One Stated: They tried to make new touristic projects, but because the |
| collection, molluscs or small fish collection,   | port is not equipped, I did not work.                                  |
| rubbish scavengersetc.)  |  |
| C4.a. Which activities? Who performs those activities and where?                           |  |
|  |  |
| (Note to moderator: Please probe into gender: female vs. male, age groups:                 | [nanswered below]  |
| youth vs. adults vs. elderly, nationality  |  |
| groups: Lebanese vs. refugees)   |  |
|  |  |
|  |  |
| C4.b. How women are involved in such activities?   | [not asked]  |
| activities.  | [int daked]  |
|  |  |
|  |  |
| C4 - Which in  |  |
| C4.c. Which season in a year are these activities performed?                               | One state dr Duving the suppose  |
|  | One stated: During the summer  |
|  |  |
|  |  |
|  |  |
| C4.d.1. Do they earn income from   |  |
| those activities?  | [not asked]  |
|  |  |
|  |  |
|  |  |
|  |  |
| C4.d.2. And do they have alternative   | [nanswered below]  |
| livelihoods?   |  |
|  |  |
|  |  |
|  |  |
| C4.e. Do they have any major problems or sensitivities in community?                       | [nanswered below]  |
| or sensitivities in community?   | [manawered below]  |
|  |  |
|  |  |

| C5.a. What other types of economic activities are available in this village?   | One Stated: Right one Stated: Restated:   |                 |  |
|--|---|-----------------|--|
| (Note to moderator: Please probe into land-<br>based livelihoods like farming, businesses,<br>markets, artisans etc.)  | One Stated: Farming One Stated: We had not then you do no   | ive nothing but | the sea. You work, you eat, you do                                 |
| C5.b. What about those specifically located on the coastline?  | One Stated: We ha   | ve one divina : | school at Lasalinas  |
| (Note to moderator: please probe into beach resorts, hotels, marine tourism by tour operators, diving/surfing schools, | Interviewer: Is tour  | ism boosting th | e economy in your town? economy [most answered to that             |
| retail/rental services of fishing supplies or<br>sea equipmentetc.)  | One Stated: Lasali  | nas have now    | 5 other branches   |
| C5.c. Can you give estimate shares of each of those economic activities, at the local level?                           |   | ike about 60%,  | 20%, fishing takes about 10%, and the 10% left is the sum of other |
| C6.1. Do you have any touristic site in this village?  | ☑ Yes □ No  |                 |  |
| C6.2. If yes, what is it exactly? where is it located and do you have tour operators? Boat trips?                      | One Stated: Ras Anfeh. It is a castle that was buried, and people are excavating it.  One Stated: It is located at Ras Anfeh  One Stated: The castle dates back to the Phoenicians  One Stated: They began to work on touristic trips  One Stated: I have already told you about touristic boat trips, they have tried to achieve it, but because the port is not equipped they could not go through with it. |                 |  |
|  |   | Y/N             | Location   |
| C7. Do you have any of the following in your village? If yes, please describe and indicate the location                | qq. Nature reserves   | no              |  |

|  | <b>rr.</b> Temples, palaces,<br>castles | yes | One Stated: Several old churches |
|--|---|-----|----------------------------------|
|  | <b>ss.</b> Ottoman structures           | no  |                                  |
|  | tt. Museums                             | No  |                                  |
|  | <b>uu.</b> Religious heritage           | No  |                                  |
|  | <b>vv.</b> World Heritage               | No  |                                  |
| C8. Do you have adequate water supplies in your village? | ⊠ Yes □ No                              |     |                                  |

| C9. What about electricity and waste management services?  (Note to moderator: Please probe on the coastal part of the village as well)                                    | One Stated: The electricity is like everywhere else in Lebanon, we have both generators and government electricity.  One Stated: As for waste, the municipality has that covered. Even when we had a waste crisis, the municipality has never left waste in front of our homes  One Stated: We do have waste on the costal part of the village, because waste comes from Beirut  One Stated: Personally, I gather the waste I find near my house and burn it.  One Stated: The municipality cleaned the entire costal part |
|--|--|
| C10.1. In general, are the roads in your village in good condition?  | ⊠ Yes □ No   |
| C10.2. Are there any public transport services?  (Note to moderator: Please probe on the coastal part of the village as well)  | One Stated: No [they all agreed] One Stated: You have to go up the main road for you to get a bus down to Beirut   |
| C11.a.1. What illnesses are most prevalent in your community?  | One Stated: Cancer One Stated: Heart disease One Stated: Diabetes One Stated: High blood pressure  |
| C11.a.2. And does fishing cause any health hazards?  | One Stated: No, fishing gives you health itself [several agreed] One Stated: It is a type of sports.   |
| C11.b. Which healthcare facilities are available in your village?  (Note to moderator: Please probe into hospitals, public clinics, mobile clinics, how far they areetc.). | One Stated: Nothing [they all agreed] One Stated: The closest hospital is a 15 to 20 minute drive  |
| C11.c.1. Are they reliable services?   | ☐ Yes ☐ No [the participants said that the most reliable service is Al Batroun Hospital]   |

| C11.c.2. If no, why not?  | [not asked]  |
|---|--|
| C11.d.1. Do they meet the community healthcare needs?   | □ Yes □ No [not asked]   |
| C11.d.2. If no, why not and do you think you need more healthcare facilities in the area?   | One Stated: Yes we need more healthcare facilities One Stated: A clinic like the one in Chekka   |
| C12. a.1. What about the educational services?  | One Stated: we have only one public school One Stated: The closest university is in Chekka   |
| C12. a.2. Do you have schools/<br>training centers in your village?<br>(Note to moderator: please probe into the<br>different levels: primary schools, secondary<br>schools, universities and technical<br>schools) | [not asked]  |
| C12.b. How do you evaluate the educational levels by age groups (youth, adults and elderly) in your communities?  | One Stated: Youth have the highest educational level, approximately 80% of the youth One Stated: 25% of adults have a good educational level One Stated: Elderly such as us barely even had an education, I only made it to grade four |
| C13.1. How do you describe the safety and security conditions in your area?   | One Stated: They are really good   |
| C13.2. Which parties play the major role(s) in this regard?   | One Stated: Recently the army were set in the middle of the town, a very strategic point One Stated: The municipality ensures safety and security  |

| C14. Are there any associations or NGOs in your community (if so what do they do?)                       |  |  |  |  |  |
|--|--|--|--|--|--|
| C15. What problems exist in the community?   | One Stated: We don't have problems One Stated: We are peaceful One Stated: We don't have fights or killings One Stated: We only have problems concerning our livelihood One Stated: We have many graduates who have earned high degrees, and the ones who are working, they are working in some job that is below the educational level they have reached. Many of those graduates have not found a job at the first place. This is the most dangerous problem we are facing and not only here, but in all of Lebanon. |  |  |  |  |
| THEME 3:   | COMMUNICATION AND FEEDBACK MECHANISMS  |  |  |  |  |
| Q1. What are your most important information needs in relation to the upcoming oil exploration activity? | One Stated: Where will be at One Stated: We don't want anything that could affect the fishing culture One Stated: Oil leakage One Stated: We are scared that if oil was found, fishing will be prohibited One Stated: After maybe one or two years if they actually find oil they will want to bring it back to shore, so they will ban us from entering that zone.  |  |  |  |  |
| Q2. How do you like to receive any future project updates?   | One Stated: A meeting similar to this one [they all agreed] One Stated: We exchange ideas, opinions, doubts and fears One Stated: We prefer that the party in charge comes and gives us the updates  |  |  |  |  |
| Q3. Are there any stakeholders that you would recommend that we talk with?                               | [not asked]  |  |  |  |  |
| ADDITIONAL NOTES   |  |  |  |  |  |

## TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON FOCUS GROUPS DISCUSSION GUIDE FOR FISHERMEN / ANGLERS/ FISHING HOUSEHOLDS (WOMEN)

| Name of village:   | Okaiba   | Date of the discussion: | 21/05/2019                  |
|--|--|-------------------------|-----------------------------|
| Name(s) of attendees:  |  |                         |                             |
| Notes  | Please introduce the oil drilling activity opportunity for questions and answer. |                         | nd give the participants an |
| THEME 1 DEMOGRAPHICS   | - STAKEHOLDER ENGAGEMENT A   | ND IMPACT ASSESSMENT    |                             |
| Q1. Please introduce the oil drilling activities using the BIDs and posters. Once completed give the participants an opportunity for questions and you provide an answers to their questions as far as possible. If you cannot answer then please take the stakeholders contact details and tell them you will get the answer and get back in contact as soon as possible. |  |                         |                             |
| Q2. Now, do you have questions?  |  |                         |                             |
|  | THEME 2: SOCIO-ECONOMIC  | OVERVIEW                |                             |
| J. DEMOGRAPHICS  |  |                         |                             |

| A.1.1. What is your name?                |   |
|--|---|
|  | 53<br>50  |
| A.1.2.What is your age?                  | 55  |
|  | 49  |
|  | 45  |
|  | One stated: Yes   |
|  | One stated: Yes   |
| A2.1. Are you married?                   | One stated: Yes   |
|  | One stated: Yes   |
|  | One stated: yes   |
|  | One stated: Three   |
|  | One stated: Three   |
| A2.2. If yes, how many kids do you have? | One stated: Three   |
|  | One stated: Two   |
|  | One stated: Two   |
|  | One stated: Yes   |
|  | One stated: Yes   |
| A3.1. Are you from this village?         | One stated: Yes   |
|  | One stated: Our origin is from Al-Qaa but we were born here and we live here. |
|  | One stated: yes   |

| A3.2. How long have you been residing in this village?  | Two stated : Thirty years.  |  |  |  |  |
|---|---|--|--|--|--|
| A4. How many people live in the village?  | All stated: We do not know.   |  |  |  |  |
|   | One stated: I work in the hospital.   |  |  |  |  |
|   | One stated: No, i dont work   |  |  |  |  |
| A5. What is your profession?  | One stated: Housewive   |  |  |  |  |
|   | One stated: No, i dont work   |  |  |  |  |
|   | One stated: I work with the Lebanese Armed Forces   |  |  |  |  |
|   | B. FISHING ACTIVITIES   |  |  |  |  |
| B1.1. Are you/ or is anyone in your household, currently involved in  | Only two women have their sons help their husbands.   |  |  |  |  |
| fishing?  | One stated: I used to go work with my husband.  |  |  |  |  |
| B1.2. What types?  (Note to interviewer: please probe into artisanal/traditional, commercial, recreational) | They all live from this profession so it is commercial of course.   |  |  |  |  |
|   | They all talk at the same time about the hardships of the fisherman's work.                                   |  |  |  |  |
|   | One stated: The boats are about nine meters long.   |  |  |  |  |
|   | One stated: The boat of husband is about 10 meters long.  |  |  |  |  |
| B2. What type of boats/ powerboats are you using for fishing?   | One stated: They all talk at the same time.   |  |  |  |  |
| (Note to moderator: please probe into size of boat, motor/sail, number of fishermen in                      | One stated: The boats can have two or three people on board.  |  |  |  |  |
| each boat)  | One stated: Sometimes they use the help of Syrian crews (workers) because the Lebanese do not work like that. |  |  |  |  |
|   | One stated: My son can help or it might be a Syrian man.  |  |  |  |  |
|   |   |  |  |  |  |
|   | One stated: Nets, traps, hooks  |  |  |  |  |
| B3. What are the specific fishing gears employed?   | One stated: I go out with him all the time last year I left my daughter with her grandmother to go with him.  |  |  |  |  |
| (e.g. hook and line, traps, nets, diving gears, dynamite etc)   | One stated: No I get dizzy.   |  |  |  |  |
|   | One stated: On the contrary it is very nice.  |  |  |  |  |

| B4.1. What types of fish?  | One stated: Whitebait, Ghobbos, Dakar, Paramida, Okkes, Mallifa, Leptobarbus hoevenii, and sometimes crab. (kinds of local fish)   |
|--|--|
|  | One stated: No more than a kilometer. Theys sail more to the left or the right side but forward it is about a kilometer.   |
|  | One stated: It depends on the gear they are using.   |
| B4.2. Where do you go for fishing?   | One stated: The fishing trips occur in the early mornings. The men fish in the sea not from the shore, it might be close to the shore but the fishing happens in sea.  |
| (Note to moderator: please probe into distances in kilometers, near/ far from shore (for anglers in specific), also ask if they fish | One stated: Some poeple used to use a Land Shovel, but it was banned.  |
| from the shore)  | One stated: No it is still used, One stakeholder (Last name not clear) still uses them.  |
|  | Moderator : Why is it illegal or banned ?  |
|  | One stated: It is banned because when the fish approches shallow waters, it is to ovulate and such the shovel might destroy the eggs.  |
|  | One stated: Before sunset they go to put light or traps, and they come back to have dinner, and then sail in the night. Sometimes they catch and other times they do not.  |
| B5. When do you usually go for fishing?  | One stated: The fishing business is highly dependent on the weather and on seasons.  |
| (Note to moderator: please probe into hour, time of the day and seasons)   | One stated: There is no schedule.  |
|  | One stated: The moon might affect.   |
|  | One stated: The summer work differs from winter.   |
|  | One stated: In winter they leave at dawn during very early mornings.   |
|  | One stated: It depends.  |
| <b>B6.</b> How much fish do you catch on an average fishing trip?  | One stated: Let me tell you about my son, he went on a fishing trip two days ago, he caught a worth of 20.000 L.L., but if you see the gearhe is using, one might feel he should have caught a worth of 100.000 L.L. |

One stated: Some people catch the worth of 50.000 L.L. and 60.000 L.L. One stated: Sometimes they catch nothing at all only dirt. Moderator: Does the catch cover the price of the gear used? One stated: No, not in winter nor in summer. One stated: They all talk about the problems that damage the gear. One stated: Fixing and repairing your boat is very expensive, the fishing business is a loser business. One stated: In the Fishing Coop in Okaiba, and they are presented for selling. One stated: They catch fish and sell lit after an hour. It is sold fresh. One stated: There is no coolers on board the boats. One stated: Please I need to ask you, why are you asking us these questions. Moderator: Because this study is to know the locals' fears and questions they have, all the people who live along the coast. All the people who live by the sea are asked the same thing. One stated: Sorry I need to ask another question, B7. How do you preserve the fish? The fisherman in lebanon has no social security, no healthcare, he has a family, (Note to moderator: ice or smoked, other?) who is looking after this person? If we raise those fears here with you, will we benifit? Is our voice going to be heard through this meeting? Moderator: I can promise you that every single word said in this meeting will reach the specialists. But we want results, we want benifits, in Lebanon we are used to fake promises. We did come to this meeting w agreed to your invitation, will you agree to our demands? Moderator:

|  | Excuse me but we are gathering information, and not more than that.  |
|--|--|
|  | We know that but we are asking if you can help in taking in our name and taking our fears with you to whom it may concern.   |
|  | We should have told them that yes the fishing business is booming and we catch humangous numbers so that when they see there is no fish then they would compensate us. |
|  | No, we should not lie to anyone. (They all laugh).   |
| B8. Does anyone help you with fishing?   |  |
| (Note to moderator: please probe into who are the crew members if any e.g family members, poorer members of community, refugees) | One stated: helps her husband.   |
| B8.a. If yes, what is their role? How do they exactly help you?  | One stated: I used to help him pull the nets from the sea, or pull the fish from the nets, it does not matter if you are a man or a woman.                             |
| B8.b. How females are involved in fishing? Are there gender differentiated roles?  | One stated: I go as a relaxing trip.  One stated: I do not go with him.  |
| B8.c.1. Are there any similar examples in community?   | One stated: No, Okaiba no. But to the north you might find more women who help their husbands. In Tripoli maybe.   |
| B8.c.2. What are the roles of people engaged in fishing in your community?   |  |
| B9. What type of fish do you catch and what do you do with the fish catch?   | One stated: Many kinds.  |

|  | One stated: Here we do not have a market for fish.  |  |  |  |  |
|--|---|--|--|--|--|
|  | Moderator :Does the COOP help in selling the fish ?   |  |  |  |  |
| B9.a. Are these goods for sale/ Used   | One stated: No it does not.   |  |  |  |  |
| for own consumption/ For leisure? If for sale, please describe how.  | One stated: The COOP built a square where the fishermen sell their fish. The COOP was made to help the fisherman that are registered to it, and to ensure   |  |  |  |  |
| (through a cooperative, wholesaler, street vendors, how much per kilo)   | that the fish is not sold for low prices, but it was not designed to contain huge numbers of fish. That is when the fisherman goes to Beirut.   |  |  |  |  |
|  |   |  |  |  |  |
|  |   |  |  |  |  |
|  |   |  |  |  |  |
| <b>B9.b.1.</b> How do you advertise your fish?   |   |  |  |  |  |
|  |   |  |  |  |  |
| <b>B9.b.2.</b> Who is involved in the marketing and sales process?   |   |  |  |  |  |
| (Note to moderator: please probe into the roles of men vs. women in the household)   |   |  |  |  |  |
| B9.c. Are there markets available for fishermen/ individuals conducting marine activities to sell their fishes/products/ services? |   |  |  |  |  |
|  |   |  |  |  |  |
| <b>B9.d.1.</b> Do you/ or does any household member earn any income from fishing?  | ☑ Yes □ No  |  |  |  |  |
|  | One stated: As we told you, if they catch then they share with the income if they   |  |  |  |  |
|  | do not catch they do not share. If you do not fish you do not eat. ( A figure of speech).   |  |  |  |  |
| B9.d.2. If yes, what is its share from the total household income?   | One stated: To say it bluntly, you find someone to loan you money, and when you have a good catch you repay back. There comes a time when there is no catch for a long time, there should be someone helping with the income. This is the life system of the fisherman. |  |  |  |  |
|  |   |  |  |  |  |

| <b>T</b>   |   |
|--|---|
|  | One stated: In winter, you have three to four month of no catch and they are horrible. And if they go on fishing trips it is very dangerous. The wind, the storms, one fisherman, Jergi died. |
|  | One stated: He was my uncle, he died from the cold during a trip.   |
|  | Moderator :Fishermen have no stable income ?  |
|  | One stated: No.   |
| B9.d.3. Do you have any alternative livelihood activities that you undertake alongside fishing?                                  |   |
| Dia Americantale have many   | One stated: Not much, maybe twenty fishermen.   |
| B10. Approximately, how many fishermen are there in your village (as a livelihood or as a recreational activity please specify)? | One stated: No more than forty.   |
|  | One stated: There are many amateurs.  |
|  | One stated: Here we say that the sea is treachery, one minute you are fine the other you are threatened and faced by dangers.   |
|  | One stated: My husband faced an accident while pulling a trap on board his boat, his back stiffened and he was alone on the boat and only god's protection brought him back safe.             |
| B11.1. From your experience, what  | One stated: It is unstable for a family.  |
| problems at seas are there?  | One stated: A fisherman is banned from social security.   |
|  | One stated: Protection of the fishery, pollution is killing it; the government is not providing any help. There are no laws for fishing. Fishermen migh catch eggs just so they get a catch.  |
|  | One stated: It is disastrous.   |
| B11.2. What changes have you noticed over the years?   |   |
| (Note to moderator: please probe into safety, equipment, pollution, fish stock (plenty of fish or few fish)etc.)                 |   |
|  |   |

|  | One stated: In our region one positive thing is that we have rivers in our water   |  |  |  |  |
|--|--|--|--|--|--|
| B12. What are the factors that   | which fish are attracted to.   |  |  |  |  |
| positively and negatively influence fishing activities in your area?               |  |  |  |  |  |
|  | One stated: The chaos is everywhere.   |  |  |  |  |
| (Note to moderator: please probe into problems faced by fishermen in this village, |  |  |  |  |  |
| work conditions and welfare)   | One stated: The positive thing is that the fisherman gets used to relaxing and     |  |  |  |  |
|  | patience, they are not subject to constant stress like us. (They all laugh)        |  |  |  |  |
|  |  |  |  |  |  |
| С. 9   | SOCIO-ECONOMIC INDICATORS AT THE LOCAL LEVEL                                       |  |  |  |  |
|  | One stated: There are some beaches and restaurants, there are few (Big Heads)      |  |  |  |  |
|  | - referring to important people in the country, eating everything but there are    |  |  |  |  |
|  | small bits and pieces for the people.  |  |  |  |  |
|  | sman one and proces for the people.  |  |  |  |  |
|  | One stated: Last year the beach was amazing and beautiful, there was a             |  |  |  |  |
|  | municipality, you would go to the beach with ease and comfort. Whereas this        |  |  |  |  |
| C1. How would you describe the   | year, there are many strangers and there is no one to stop them, the               |  |  |  |  |
| current coastal resource conditions in your community?                             | municipality's men are not there.  |  |  |  |  |
| ,  |  |  |  |  |  |
|  | One stated: I heard that they will start arriving at the beach to stop the         |  |  |  |  |
|  | strangers.   |  |  |  |  |
|  |  |  |  |  |  |
|  | One stated: The beach and water are very clean, the municipality cleans the beach. |  |  |  |  |
|  | beach.   |  |  |  |  |
|  | One stated: Locals rent spots on the beach and this is an advantage.               |  |  |  |  |
|  | One stated: Pollution, sewage and oil in the water.                                |  |  |  |  |
|  |  |  |  |  |  |
| C2. What are the top 3 major threats to  | One stated: Digging, when the river carries soil into the sea, this is a threat to |  |  |  |  |
| the health of coastal resources in your community?                                 | the fishermen.   |  |  |  |  |
|  |  |  |  |  |  |
|  | One stated: Before cleaning the beach, you sea many medical discharge and          |  |  |  |  |
|  | this is a kind of pollution and it causes damage to the body.                      |  |  |  |  |
|  |  |  |  |  |  |
| CO Who do you identify a surface bloom   |  |  |  |  |  |
| C3. Who do you identify as vulnerable in your community?                           | One stated: The fishermen, they talk about their rights but no one listens to      |  |  |  |  |
|  | them. They are deprived of their rights.   |  |  |  |  |
|  |  |  |  |  |  |
|  | One stated: People fix their own boats and gear. They might rent people from       |  |  |  |  |
| C4. Besides fishing, are there any   | outside the town like Tripoli to do the fixing.                                    |  |  |  |  |
| other marine activities available in this village?                                 | outside the town like Tripon to do the fixing.                                     |  |  |  |  |
| (Note to moderator: Please probe into boat   | One stated: There used to be seashells collecting but not anymore.                 |  |  |  |  |
| repairing, net making, collecting seashells,                                       | ,  |  |  |  |  |
| sand extraction, salt extraction, sea worm   |  |  |  |  |  |
|  |  |  |  |  |  |

| collection, molluscs or small fish collection, rubbish scavengersetc.)  |  |
|---|--|
|   |  |
| C4.a. Which activities? Who performs those activities and where?  |  |
| (Note to moderator: Please probe into gender: female vs. male, age groups: youth vs. adults vs. elderly, nationality groups: Lebanese vs. refugees) |  |
| C4.b. How women are involved in such activities?  | One stated: I clean my husband's net and gear. |
| C4.c. Which season in a year are these activities performed?  |  |
| C4.d.1. Do they earn income from those activities?  | One stated: No                                 |
|   | One stated: No                                 |
| C4.d.2. And do they have alternative livelihoods?   | One stated: Private businesses.                |
|   | One stated: We plant in our own gardens.       |
| C4.e. Do they have any major problems or sensitivities in community?  |  |
| C5.a. What other types of economic activities are available in this village?  | One stated: Restaurants.                       |
| (Note to moderator: Please probe into land-<br>based livelihoods like farming, businesses,<br>markets, artisans etc.)                               | One stated: Tourism                            |
|   |  |

| C5.b. What about those specifically located on the coastline?   |  |     |          |  |
|---|--|-----|----------|--|
| (Note to moderator: please probe into beach resorts, hotels, marine tourism by tour operators, diving/surfing schools, retail/rental services of fishing supplies or sea equipmentetc.) |  |     |          |  |
| C5.c. Can you give estimate shares of each of those economic activities, at the local level?  | One stated: We do not know.  One stated: It might reach 50%.   |     |          |  |
| C6.1. Do you have any touristic site in this village?   | ≥ Yes □ No   |     |          |  |
| C6.2. If yes, what is it exactly? where is it located and do you have tour operators? Boat trips?   | One stated: The old bridge of Nahr Ibrahim and Zbayde Archs.  One stated: No, they do not operate tours to them. |     |          |  |
|   |  | Y/N | Location |  |
| C7. Do you have any of the following in your village? If yes, please describe and indicate the location   | <b>ww.</b> Nature reserves   | No  |          |  |
|   | <b>xx.</b> Temples, palaces, castles   | No  |          |  |

|   |                                       |                   | <del>-</del>                                     |
|---|---------------------------------------|-------------------|--|
|   | <b>yy.</b> Ottoman structures         | No                |  |
|   | <b>zz.</b> Museums                    | No                |  |
|   | <b>aaa.</b> Religious<br>heritage     | No                |  |
|   | <b>bbb.</b> World Heritage            | No                | Note: They talk about touristic sites in Byblos. |
| C8. Do you have adequate water supplies in your village?  | ☐ Yes ⊠ No                            |                   |  |
| C9. What about electricity and waste management services?  (Note to moderator: Please probe on the coastal part of the village as well) | One stated: No, nothing, no services. |                   |  |
| C10.1. In general, are the roads in your village in good condition?   | ☐ Yes <mark>☒ No</mark> The road      | s are all dug up. |  |

| C10.2. Are there any public transport services?  |   |
|--|---|
| (Note to moderator: Please probe on the coastal part of the village as well)   | One stated: Yes, because the beaches are easy to reach.   |
| C11.a.1. What illnesses are most prevalent in your community?  | One stated: Mosquito bites are being poisonous.  One stated: Diabetes and high blood pressure are evident.  |
| C11.a.2. And does fishing cause any health hazards?  | One stated: They cause health hazards to the fisherman himself.  One stated: The cold and humid weather cause thinning bones.   |
| C11.b. Which healthcare facilities are available in your village?  (Note to moderator: Please probe into hospitals, public clinics, mobile clinics, how far they areetc.). | One stated: There is a hospital Al-Bwar located 10 to 15 minutes away from here.  One stated: We have no healthcare, if we need to perform any medical procedure the doctor fills up papers for the Ministry of Health.  One stated: For serious situations one goes to Lamartin Hospital or to Beirut.  One stated: We do not have public clinics. |
| C11.c.1. Are they reliable services?   |   |
| C11.c.2. If no, why not?   |   |
| C11.d.1. Do they meet the community healthcare needs?  | ☐ Yes ☑ No  |

| One stated: The fisherman needs healthcare and social security. We need a good public clinic.  |
|--|
| One stated: Any medical surgery needs the minimum of 5000 USD or 6000 USD.   |
| One stated: The hospital in Bwar is a public one.  |
| One stated: No healthcare, I did a surgery, on the expense of the Ministry of Health, and if not for all the connections and if not of the doctor, I would not have done it. |
| One stated: Not good.  |
|  |
| One stated: There are Primary Schools in our village.  |
| One stated: Females and males are both educated. Among the elderly, the males are more educated than the females.  |
| One stated: The Municipality Police protect the village, and the municipality lights the roads and so on.  |
| One stated: Our village runs on solar energy.  |
|  |
| One stated: No we do not know anything of the sort.  |
|  |

| C15. What problems exist in the community?   |  |  |
|--|--|--|
| THEME 3:   | COMMUNICATION AND FEEDBACK MECHANISMS  |  |
|  | One stated: We need at least social security for the fishermen.  |  |
| Q1. What are your most important information needs in relation to the upcoming oil exploration activity? | One stated: I wish that our children and men work with this project, not only foreigners.  |  |
|  | One stated: We hope that in case any damage was done to the fishery, we would  |  |
|  | be compensated.  |  |
| Q2. How do you like to receive any future project updates?   | One stated: Give us a phone number.  |  |
|  | One stated: We agree to whatever our men agreed to.  |  |
| Q3. Are there any stakeholders that you would recommend that we talk with?                               | One stated: We need our future youth to participate and have a chance to be part of this new work that might be resulted by this exploration drilling. |  |
| ADDITIONAL NOTES   |  |  |

## TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON FOCUS GROUPS DISCUSSION GUIDE FOR FISHERMEN / ANGLERS / FISHING HOUSEHOLDS (WOMEN) Name of village: Anfeh Date of the discussion: 21/05/2019 \*\*Please introduce the oil drilling activities using the BIDs and posters and give the participants an opportunity for questions and answers

| THEME :  | L – STAKEHOLDER ENGAGEMENT AND IMPACT ASSESSMENT  |
|--|---|
| Q1. Please introduce the oil drilling activities using the BIDs and posters. Once completed give the participants an opportunity for questions and you provide an answers to their questions as far as possible. If you cannot answer then please take the stakeholders contact details and tell them you will get the answer and get back in contact as soon as possible. |   |
| Q2. Now, do you have questions?  |   |
|  | THEME 2: SOCIO-ECONOMIC OVERVIEW  |
|  | K. DEMOGRAPHICS   |
| A.1.1. What is your name?  |   |
| A.1.2.What is your age?  | One stated: 55 years old One stated: 63 years old One stated: 45 years old One stated: 62 years old One stated: 60 years old                                    |
| A2.1. Are you married?   | One stated: Eight were married One stated: Two were not married   |
| A2.2. If yes, how many kids do you have?   | One stated: My husband has two kids, non for me. One stated: Three kids One stated: Five kids One stated: One boy One stated: Four boys One stated: Three girls |
| A3.1. Are you from this village?   | One stated: Yes [ all are from this village]  |
| A3.2. How long have you been residing in this village?   | One stated: Around 10 years One stated: 43 years One stated: A very long time, since birth [ five of them] One stated: 45 years                                 |

| A4. How many people live in the village?   | One stated: One said around 4,505 people are originally from here. One stated: Another, said aound half of the 4,505 are living abroad.   |
|--|---|
| A5. What is your profession?   | One stated: Two were tailors One stated: Seven were housewives One stated: Cleaning fish  |
|  | B. FISHING ACTIVITIES   |
| B1.1. Are you/ or is anyone in your household, currently involved in fishing?  | One stated: The majority said the husband is the one involved in fishing One stated: One of the women works herself in fishing One stated: Some said that their fathers work in fishing One stated: Previously mentioned that one of the womens children also work in fishing   |
| B1.2. What types?  |   |
| (Note to interviewer: please probe into artisanal/traditional, commercial, recreational)   | One stated: They fish to trade as a job One stated: They fish to eat One stated: They fish with a net [ They all agreed that they fish to eat and trade]  |
| B2. What type of boats/ powerboats are you using for fishing?  (Note to moderator: please probe into size of boat, motor/sail, number of fishermen in each boat)                         | One stated: They all answered the same saying thet use small sized boats One stated: Some said they used sail boats, others said they use powerboats One stated: One said the boats are around five meters, six meters, or seven meters long (maximum 10 meters) One stated: Some said thier husband goes alone One stated: One said two go together, her husband and her son One stated: A couple said depending on the task they are performing the number of people increase   |
| B3. What are the specific fishing gears employed?  (e.g. hook and line, traps, nets, diving gears, dynamite etc)   | One stated: The majority answered nets are used mostly One stated: Another suggested the use of traps to catch the fish One stated: One said that every kind of fish has a different way to catch them One stated: Another women said that the gears they use depend on the season One stated: One said they use hooks and fish bait  |
| B4.1. What types of fish?  | One stated: One said they get alot of fish such as, Al ghazel abou seif in October and November mostly, Balamika, Al jarou, Shrimp, Boure, One stated: Others said Sarghout, Ghobous, Malifa, Ajej, Abou shawke and many more.  |
| B4.2. Where do you go for fishing?  (Note to moderator: please probe into distances in kilometers, near/ far from shore (for anglers in specific), also ask if they fish from the shore) | One stated: One said they go at a distance of six km. One stated: One said her husband sometimes goes around three km away and places his basket to fish. One stated: More than one said they when they fish on the shore they do it a s a hobby not to actually fish.  |
| B5. When do you usually go for fishing?  (Note to moderator: please probe into hour, time of the day and seasons)  | One stated: They all agreed that their men go fishing everyday One stated: One said that if they want to go in the morning usually to get big fish they have to stay from around seven AM till around three PM One stated: The same women continued to say that at night they go from four PM till 12 AM One stated: She also said that for diving they go at around one AM till eight AM One stated: Moreover, she said if they use nets they place the mat around two PM and remove it at around five AM One stated: She alsosaid that if they ended with a net they place i tat around four PM and remove it at eight AM from the mina |

| B6. How much fish do you catch on an average fishing trip?   | One stated: One said that a long time ago they used to catch around 144 KG per trip Now they catch around less than one KG per fishing trip.  One stated: Another said that they sometimes catch nothing for around three days or they catch around two KG   |
|--|--|
| B7. How do you preserve the fish?  (Note to moderator: ice or smoked, other?)  | One stated: One said that they have fridges with ice, they clean then and put ice and cover with plasic wrap and place the fish on top [at the shop] One stated: Others said that they just lay the fish on ice and drive around the village One stated:   |
| B8. Does anyone help you with fishing?  (Note to moderator: please probe into who are the crew members if any e.g family members, poorer members of community, refugees) | One stated: One said yes, ofcourse other fishermen help them. One stated: Another said that her son goes with her husband One stated: A couple said that that if there is no family member going with their husband, then a fellow fishermen helps out. One stated: Sometimes refugees from Syria and Palestine help, especially on big trips  |
| B8.a. If yes, what is their role? How do they exactly help you?  | One stated: They help by pulling out the nets out of the water and bringing them to the boat   |
| B8.b. How females are involved in fishing? Are there gender differentiated roles?  | One stated: One said that she knows two people that used to go help their husbands when fishing One stated: Another said they help at home One stated: One of them works in a fish store and she cleans the fish, cooks the bait and places the bait on the hooks [ this is around 75% of the work , the rest is the fishing part] One stated: Another women said that she doest help because he puts the fish in the market One stated: |
| B8.c.1. Are there any similar examples in community?   |  |
| B8.c.2. What are the roles of people engaged in fishing in your community?   |  |
| B9. What type of fish do you catch and what do you do with the fish catch?   | One stated: They all suggested many types of fish such as Sarghout, Ghobous, Malifa, Ajej, Abou shawke One stated: One said she sell them in their fish shop One stated: The others said that the fish is sold to fish markets   |

| B9.a. Are these goods for sale/ Used for own consumption/ For leisure? If for sale, please describe how.  (through a cooperative, wholesaler, street vendors, how much per kilo) | One stated: They catch fish to sell them. One stated: They are usually sold in the fish market One stated: They are sold per kilo One stated: Each kind of fish has a diffrent price One stated: They have a fishermen market where they can also sell their fish in the mina [The majority agreed] One stated: One said that some restaurants buy from them fish as well   |
|--|---|
| <b>B9.b.1.</b> How do you advertise your fish?   |   |
| B9.b.2. Who is involved in the marketing and sales process?  (Note to moderator: please probe into the roles of men vs. women in the household)                                  | One stated: One person answered that she sells they fish in thier own store One stated: Others said that the fish their husbands caught are put in the the mina or in other fish markets  |
| B9.c. Are there markets available for fishermen/ individuals conducting marine activities to sell their fishes/products/ services?   | Yes [they all agreed ]  |
| <b>B9.d.1.</b> Do you/ or does any household member earn any income from fishing?  | X Yes No  |
| B9.d.2. If yes, what is its share from the total household income?   | One stated: For some it is thier only income One stated: For the ones that work they answered that it is their main source of income and their other jobs are a very small percentage of thier income One stated: One said that they get around 400,000 to 600,000L.L per month, sometime more and sometimes less depending on the season One stated: others said that their is no fixed income One stated: The majority said that their is no alternative income |
| B9.d.3. Do you have any alternative livelihood activities that you undertake alongside fishing?  | One stated: No [all agreed]   |
| <b>B10.</b> Approximately, how many fishermen are there in your village (as a livelihood or as a recreational activity please specify)?  | One stated: One said that a livelihood there is approvimately 105 fishermen One stated: another said that the original fishermen for livelihood dont exceed 20 fishermen One stated: another said that that for livelihood they dont exceed 50 fishermen One stated: another said that around 200 people have other jobs than fishing   |

## One stated: One said that there isnt the same amount of fish like before **B11.1.** From your experience, what One stated: Another said that they might put nets and come back to not find it, that is a loss for them problems at seas are there? One stated: Anoter said that there is a problem with the equipment [they said that they had the cleanest waters in all Lebanon] B11.2. What changes have you noticed over the years? One stated: All agreed that the amount of fish has decreased rapidly throughout the past couple of years. One stated: Many said that heir water is not polluted and is the cleanest in Lebanon (Note to moderator: please probe into One stated: They waste alot of money on equipment and isnt able to make up for all the losses safety, equipment, pollution, fish stock (plenty of fish or few fish)...etc.) B12. What are the factors that positively and negatively influence One stated: One said that the rain affects fishing negatively (others agreed) fishing activities in your area? One stated: They government prevented some of the fishing tecniques they use which affected them negatively (Note to moderator: please probe into One stated: One said the projector, lights and the oxygen effects them negatively while diving problems faced by fishermen in this village, One stated: One said that there is nothing positive about it, another one agreed with her work conditions and welfare) C. SOCIO-ECONOMIC INDICATORS AT THE LOCAL LEVEL One stated: One said that it doesn't belong to them, another agreed with her C1. How would you describe the One stated: Another said that people own villas there and especially in the summer. They feel like there is current coastal resource conditions in nothing positive for them in those times. your community? One stated: A couple said that the shore is clean and the water is clean. One stated: Others said that there are sewage under them. One stated: Diving C2. What are the top 3 major threats to One stated: Oxygen the health of coastal resources in your One stated: The equipment they use while diving to catch the fish community? One stated: Chemicals that effect the fish from cement companies in Chekka One stated: Sewages One stated: They all agreed the fishermen are the most vulnerable [The original fishermen] C3. Who do you identify as vulnerable One stated: A couple suggested to given them insurance and be able to go to doctors without paying alot in your community? One stated: One suggested as well to give them an assosiation to protect and help them. [All the rest disagreed with rage ] C4. Besides fishing, are there any other marine activities available in this village? One stated: Everyone agreed that there are no other activities that fishing One stated: Everyine aid that they create their own nets and repaire their own boats. One stated: They said that they extract salt, all agreed (Note to moderator: Please probe into boat One stated: One said that inregards to rubbish scavenging, every once in a while they go down as groups repairing, net making, collecting seashells, sand extraction, salt extraction, sea worm and clean the water and the shore.[usually done by the scouts, male and female] collection, molluscs or small fish collection, rubbish scavengers...etc.) C4.a. Which activities? Who performs One stated: They said that they extract salt those activities and where? One stated: For rubbish scavenging, every once in a while they go down as groups and clean the water and the shore, this is all volunteering.[usually done by the scouts, male and female] (Note to moderator: Please probe into One stated: One said that they buy the nets, however, they have to alter it a bit which is mainly done by gender: female vs. male, age groups: men and women also help, the women who help are the elderly. youth vs. adults vs. elderly, nationality One stated: When it comes to reoaring the boats only the men do this job [they all agreed] groups: Lebanese vs. refugees)

| C4.b. How women are involved in such activities?   | One stated: The women help their husbands with the nets only   |
|--|--|
| C4.c. Which season in a year are these activities performed?   | They do them whenever they need too, since they do them for personal use   |
| C4.d.1. Do they earn income from those activities?   | No   |
| C4.d.2. And do they have alternative livelihoods?  | No   |
| C4.e. Do they have any major problems or sensitivities in community?   | No   |
| C5.a. What other types of economic activities are available in this village?  (Note to moderator: Please probe into landOne stated: based livelihoods like farming, businesses, markets, artisans etc.)  | They have farm olives, olive oil, they have salt, and extract salt [ all agreed]   |
| C5.b. What about those specifically located on the coastline?  (Note to moderator: please probe into beach resorts, hotels, marine tourism by tour operators, diving/surfing schools, retail/rental services of fishing supplies or sea equipmentetc.) | Chalets, marine tourism and restaurants which are of no benefits to them.  |
| C5.c. Can you give estimate shares of each of those economic activities, at the local level?   | One stated: No one knew for olive farming One stated: For salt extraction it is very low lately, because their equipment is expensive One stated: One said that in summer it is 100% [laughing with confidence] they all agreed One stated: In the winter there are zero activites |

| C6.1. Do you have any touristic site in this village?   | X Yes □ No  |     |  |
|---|---|-----|--|
| C6.2. If yes, what is it exactly? where is it located and do you have tour operators? Boat trips?       | Swiming, eating at restauranto go fishing with a profession |     | hey can jet ski, and they can also rent and buy equipmnt |
|   |   | Y/N | Location   |
| C7. Do you have any of the following in your village? If yes, please describe and indicate the location | ccc. Nature reserves  | Yes | Anfeh Reserves   |
|   | <b>ddd.</b> Temples,<br>palaces, castles                    | Yes | Palace   |
|   | <b>eee.</b> Ottoman<br>structures                           | Yes |  |
|   | fff. Museums  | No  |  |

|   | <b>ggg.</b> Religious<br>heritage                           | Yes                    | Churches   |
|---|---|------------------------|--|
|   | <b>hhh.</b> World Heritage                                  | No                     |  |
| C8. Do you have adequate water supplies in your village?  | X Yes ☐ No They have alot of water [all a                   | agreed]                |  |
| C9. What about electricity and waste management services?  (Note to moderator: Please probe on the coastal part of the village as well) | One stated: They will start to                              | o recycle garbage sooi | eople to pick up te garbage from the homes for people.  n said one participant icity as well as private electricity generators |
| C10.1. In general, are the roads in your village in good condition?   | X Yes ☐ No<br>One stated: Roads are small                   | and rocky [said the m  | najority]  |
| C10.2. Are there any public transport services?  (Note to moderator: Please probe on the coastal part of the village as well)           | No, everyone goes on his /ho                                | er own [all agreed]    |  |
| C11.a.1. What illnesses are most prevalent in your community?   | One stated: One said Cancer<br>One stated: Asthma, and alle |                        | they inhale  |

| C11.a.2. And does fishing cause any health hazards?   | All agreed that fishing is very healthy and has not negative side effects   |
|---|---|
| C11.b. Which healthcare facilities are available in your village?  (Note to moderator: Please probe into hospitals, public clinics, mobile clinics, how far they areetc.).  | One stated: All agreed that they dont have any facilities One stated: Only doctors have their own private clinics One stated: Some said that they have pharmacies One stated: The closest hospital is Al Haykaliye and al Salem, a clinic in Chekka which is around four Km away, |
| C11.c.1. Are they reliable services?  | X Yes □ No  |
| C11.c.2. If no, why not?  |   |
| C11.d.1. Do they meet the community healthcare needs?   | □Yes <b>X</b> No  |
| C11.d.2. If no, why not and do you think you need more healthcare facilities in the area?   | They all agreed that they dont have any facilities in their cillage and need more public clinics since the private ones are very expensive  |
| C12. a.1. What about the educational services?  | It is average   |
| C12. a.2. Do you have schools/<br>training centers in your village?<br>(Note to moderator: please probe into the<br>different levels: primary schools, secondary<br>schools, universities and technical<br>schools) | Yes, they have one public school only   |

| C12.b. How do you evaluate the educational levels by age groups (youth, adults and elderly) in your communities? | One stated: One said that the youth are the ones getting an education [all agreed] One stated: Many said that girls go to school more than boys. One stated: They futher said that boys go to school but they usually go to military school or they start to fish |
|--|---|
| C13.1. How do you describe the safety and security conditions in your area?                                      | One stated: The municipality has a police force to protect the village One stated: Night security One stated: They rearly have post signs and lights on the roads   |
| C13.2. Which parties play the major role(s) in this regard?  | The municipalities  |
| C14. Are there any associations or NGOs in your community (if so what do they do?)                               | One stated: They have one that is responsible for the festivals One stated: They have one that teaches English, and tailoring and encourages musical artisits One stat-d: They also have one that helps the disabled  |
| C15. What problems exist in the community?   | One stated: They want to be able to get medical help without paying alot One stated: They want inurance an daman for the fishermen One stated:They remove the Lebanese families to rent the houses to Syrian ones   |
| THEME 3:   | COMMUNICATION AND FEEDBACK MECHANISMS   |
| Q1. What are your most important information needs in relation to the upcoming oil exploration activity?         |   |
| Q2. How do you like to receive any future project updates?   | One stated:News on TV and in newspapers One stated: they want the municipalities to tell them updates   |
| Q3. Are there any stakeholders that you would recommend that we talk with?                                       | They stated : Farmers, and fishermen  |

| One stated: One said that the g         | overment promised to expand the mina but | : it never happened.(another agre | eed)        |
|---|--|-----------------------------------|-------------|
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
|   |  |                                   |             |
| FOTAL E&P Liban Offshore Drilling, Leba | anon                                     |                                   |             |
|   | CUSSION GUIDE FOR                        | SMALL MARGIN                      | NAL FARMERS |
| Name of village:                        | Safra                                    | Date of the discussion:           | 23/05/2019  |
|   | ı  |                                   |             |

The moderator asked about the safety of the fishermen?

| Name(s) of attendees :  |  |  |
|---|--|--|
| Notes   | Please introduce the oil drilling activities using the BIDs and posters and give the participants an opportunity for questions and answers |  |
| THEME 1   | - STAKEHOLDER ENGAGEMENT AND IMPACT ASSESSMENT   |  |
| Q1. Please introduce the oil drilling activities using the BIDs and posters. Once completed give the participants an opportunity for questions and you provide an answer to their questions as far as possible. If you cannot answer then please take the stakeholders contact details and tell them you will get the answer and get back in contact as soon as possible. | <u>-</u>   |  |
| Q2. Now, do you have questions?   | -  |  |
| THEME 2: SOCIO-ECONOMIC OVERVIEW  |  |  |
| A.1.1. What is your name?   | L. DEMOGRAPHICS  |  |
| A.1.2.What is your age?   | 62<br>56<br>46<br>55<br>59<br>56   |  |
| A2.1. Are you married?  | All farmers are married.   |  |
| A2.2. If yes, how many kids do you have?  | Three kids. Two boys and one girl. Two boys. Two boys Three kids. Two boys and one girl. Two kids. Two kids. Two kids.                     |  |

|   | I am from Tabarja but I live in Safra. I am from jounieh but I live in Tabarja. I am from Tabarja but I live in Safra.                      |  |  |
|---|---|--|--|
| A3.1. Are you from this village?  | I am from Safra. I am from Safra.   |  |  |
| A3.2. How long have you been residing in this village?  | 4: I have been living here for around 57 years.   |  |  |
| A4. How many people live in the village?  | Around 1500 electors. If you multiply it by 3 you get the number of inhabitants, 4500.  |  |  |
| A5. What is your profession?  | Farmers.  |  |  |
|   | B. FARMING ACTIVITIES   |  |  |
| <b>B1.</b> Are you/ or is anyone in your household currently involved in coastal agricultural activities? | No.   |  |  |
|   | -One stated: 150,000 (Measure nor specified)  |  |  |
|   | -One stated: 15,000   |  |  |
| <b>B1.a.</b> How big is the agricultural area you farm/ work in?  | - One stated: 20,000  |  |  |
| you raini, itorkiii   | -One stated: 5,000  |  |  |
|   | -One stated: 65,000   |  |  |
| B1.b. What type of farming do you   |   |  |  |
| exactly do?   | - One stated: Vegetables (Broccoli, kale, Basil, Chinese cabbage, iceberg)  |  |  |
| (Note to moderator: please probe into   | -Fruit trees (Banana, Avocado)  |  |  |
| details whether crop farming, what crops,<br>market gardening, animal husbandry and<br>which animals)     | -Cucumbers and tomatoes.  |  |  |
|   | - One stated: The weather can sometimes be unpredictable.   |  |  |
|   | - One stated: From 10 years till now, 3 sorts of insects invaded our land. There  |  |  |
| Di a What arrand arrichiana and   | is one insect that gives birth to a new generation every 72 hours. If you don't   |  |  |
| <b>B1.c.</b> What seasonal variations are there?  | treat the vegetables with 5 sorts of medicine, everything will be ruined. This is   |  |  |
|   | why we have cancer.   |  |  |
|   | - One stated: Climate has changed. Temperature is changing. Insects that were present 10 or 20 years ago developed immunity over the years. |  |  |
|   | - One stated: I honestly can say that we only have one season by the coastline.   |  |  |
|   | , , , , , , , , , , , , , , , , , , ,   |  |  |
| B1.d.1. Do you use irrigation?  |   |  |  |
|   | Yes.  |  |  |
|   |   |  |  |
|   |   |  |  |
|   |   |  |  |

| <b>B1.d.2. If</b> yes, what types, and where does the water come from?  | <ul> <li>One stated: We are buying water.</li> <li>One stated: 3 methods: Gr, Drip, teeter.</li> <li>One stated: There is no available water for agriculture. The main irrigation ditch in Prophet Ibrahim River is broken and the government is not fixing it.</li> </ul>  |
|---|---|
| <b>B1.e.</b> How far is your land from the shore?   |   |
| B1.f. Does anyone help you with farming?  (Note to moderator: please probe into family members, members of community, refugees) | - One stated: I have two sons. They both finished their university education in NDU. I payed so much money for their education but when they graduated, they couldn't find decent jobs. Now they work in agriculture with me.  - One stated: Usually, Syrian, Egyptian or Bangladesh workers. [Majority agreed]   |
| B1.f.i.1 If yes, what is their role?  | <ul> <li>One stated: My two sons supervise the work and the land. They buy all necessary products, machines or facilities. They distribute everything in markets.</li> <li>One stated: Workers do all tough work. (Cultivation, irrigation)</li> <li>One stated: We are not the real farmers. We are investors in agriculture. We only manage.</li> <li>One stated: In Tabarja and Safra there are around 150 farmers.</li> </ul> |
| B1.f.i.2. How do they exactly help you?   | One stated: Supervise work and land. One stated: Buy all necessary products, machines or facilities. One stated: Distribute everything in markets. One stated: Workers do all tough work. (Cultivation, irrigation)   |
| B1.f.ii.1. Are there any similar examples in community?   |   |
| B1.f.ii.1. What are the roles of people engaged in fishing in your community?   |   |
| <b>B1.g.</b> Approximately, how many farmers are there in this village?   | One stated: In Tabarja and Safra there are around 150 farmers. But now, we are facing a lot of difficulties because of the government's lack of attention towards agriculture. Lands near us are being bought. They are constantly building new centers, houses and industries.   |

| <b>B1.h.</b> Are women involved in the farming activities and how are women involved in the farming activities? | <ul> <li>One stated: They are involved but in a very low percentage.</li> <li>One stated: My wife can help me by supervising workers. She can give them few tips or information.</li> <li>One stated: No, my wife is dead.</li> <li>One stated: Syrian women help their men in our land. They do most of the work.</li> </ul> |
|---|---|
| B2. What do you do with the agricultural products?  | - One stated: We sell everything in vegetable markets in Bir Hassan, Beirut, in the south or in the north. Shop owners there take 10% and give us the rest. We trust each other.  |
| B2.a. Are the goods for sale/used for own consumption/ for leisure?  If for sale, please describe how           | One stated: We sell everything in markets. We may take some for our families.   |
| B2.b. Are there markets available for farmers to sell their products in this village?                           | One stated: Yes, in Tabarja.  |
| B2.c.1. Do you advertise your products?   | - One stated: No, we don't advertise our products because it's expensive.   |
| B2.c.2. If yes, who is engaged in this process and how?   | -   |
| B2.d.1. Do you/ or does any household member earn any income from farming?                                      |   |
| B2.d.2. If yes, what is its share from the total household income?  | -   |

| B2.d.3. And do you have any alternative livelihood activities?                                     | One stated: No, we only earn money from agriculture. We sometimes spend more than we earn.  |  |  |
|--|---|--|--|
| B3.1. From your experience, what problems does farming in this village face?                       | <ul> <li>One stated: Finding markets and good prices for agricultural crops.</li> <li>One stated: New insects.</li> <li>One stated: Expensive medicine to treat crops and its disability to kill the insects.</li> <li>One stated: 10 years ago, the Ministry of Agriculture banned few medicines but gave nothing in return. Therefor, there are several types of bacteria that kill our corps and we can't do anything about it.</li> <li>One stated: Water is not sufficient.</li> </ul> |  |  |
| B3.2. And what changes have you noticed over the years?  | <ul><li>One stated: New insects.</li><li>One stated: Less water.</li><li>One stated: Different medicines.</li></ul>   |  |  |
| B4. What are the factors that positively and negatively influence farming activities in your area? | <ul><li>One stated: Nothing positive.</li><li>One stated: Lots of negative things.</li></ul>  |  |  |
| C. SOCIO-ECONOMIC INDICATORS AT THE LOCAL LEVEL  |   |  |  |
| C1. How would you describe the current coastal resource conditions in your community?              | <ul> <li>One stated: The coastline is extremely polluted.</li> <li>One stated: All the area from Tabarja to Jbeil was for agriculture. Now, no one is paying any attention for farming and farmers. The government should help us more.</li> </ul>  |  |  |
| C2.1. What are the water sources (drinking/irrigation) in your area?                               | <ul> <li>One stated: Water comes from Prophet Ibrahim River. (Drinking/Irrigation)</li> <li>One stated: There is no enough water for agriculture.</li> </ul>  |  |  |
| C2.2. Are they considered clean?   | One stated: Generally, yes. However, it should be covered when passing by inhabited villages. (People can throw garbage in the water). One time, we discovered a new bacterium that came from this water.   |  |  |
| C3. What are the top 3 major threats to the health of coastal resources in your community?         | - One stated: First thing that comes to mind is the environmental pollution caused by industries. These toxic emissions are polluting the air and are genetically modifying vegetables. (especially cucumbers and tomatoes) - One stated: Temperatures and insects.   |  |  |

| C4. Who do you identify as vulnerable in your community?  | - One stated: Us. We are the most vulnerable in this community. We would be respected in foreign counties, but not here.  |
|---|---|
| C5. In your opinion, are there any marine activities available in this village?   |   |
| (Note to moderator: Please probe into fishing, boat repairing, net making, collecting seashells, sand extraction, sea worm collection salt extraction, rubbish scavengersetc.)                    | - One stated: You must ask Fishermen.   |
| C5.a. If yes: Who performs those activities?  (Note to moderator: Please probe into gender: female vs. male, age groups: youth vs. adults vs. elderly, nationality groups: Lebanese vs. refugees) | -   |
| C5.b. If yes:<br>How are women involved in such activities?   | -   |
| C5.c. If yes: Which season in a year are these activities performed?  |   |
| C5.d.1. If yes: Do they earn income from those activities?  | -   |
| C5.d.2. If yes: And do they have alternative livelihoods?   | -   |
| C6.a. What other types of economic activities are available in this village?  (Note to moderator: Please probe into landbased livelihoods like businesses, markets, artisans etc.)                | <ul> <li>One stated: There is the Tourism sector. But it's worse and worse every year.</li> <li>One stated: Fishing is not so good now because of pollution.</li> <li>One stated: We have markets in Tabarja and Safra. (small shops that sell different things)</li> </ul> |

| C6.b. What about those specifically located on the coastline?  (Note to moderator: please probe into beach resorts, hotels, marine tourism by tour operators, diving/surfing schools, retail/rental services of fishing supplies or sea equipmentetc.) | One stated: When tourists come to resorts, they buy ice cream from shops. [Fact, but said sarcastically] One stated: We don't have boat trips for example. We used to have, now we don't. You find that in Jounieh. |     |  |
|--|---|-----|--|
| C6.c. Can you give estimate shares of each of those economic activities, at the local level?   | Agriculture 30% Tourism 65% Trade 5%  |     |  |
| C7.1. Do you have any touristic site in this village   | ☑ Yes □ No  |     |  |
|  |   | Y/N | Location   |
| C8. Do you have any of the following in your village? If yes, please describe and indicate the location  | iii. Nature reserves  |     | One stated: -No, I think there is no nature reserves.  |
|  | <b>jij.</b> Temples, palaces,<br>castles  |     | <ul> <li>One stated: We have ancient monuments that date back to 14,000 years before Jesus Christ.</li> <li>One stated: In Tabarja lived king Burgess, his castle is big and ancient.</li> </ul> |
|  | <b>kkk.</b> Ottoman structures  |     | No   |

|   | III. Museums   |  | No   |
|---|--|--|--|
|   | <b>mmm.</b> Religious<br>heritage                    |  | One stated: We have ancient churches like Saint George church. |
|   | <b>nnn.</b> World Heritage                           |  | One stated: No, we are farmers, we don't know.                 |
| C9.1. Do you have adequate water supplies in your village?  | ⊠ Yes □ No   |  |  |
| C9.2. What about electricity and waste management services?  (Note to moderator: Please probe on the coastal part of the village as well) | One stated: Our Municipality is doing the best work. |  |  |
| C10.1. In general, are the roads in your village in good condition?   | ☐ Yes ⊠ No   |  |  |
| C10.2. Are there any public transport services?  (Note to moderator: Please probe on the coastal part of the village as well)             | One stated: There are buses on the main road.        |  |  |

| C11.a. What are the main illnesses in the community?  | One stated: Cancerous diseases. However, there is no farmer that died because of cancer.  |
|---|---|
| C11.b. Which healthcare facilities are available in your village?   | One stated: There are governmental hospitals, but they are not safe at all. If you go there, you die. [Sarcastically] You can't trust their services because there isn't any. If you want a cardiologist for example, you don't find one. Only private ones are good, but you must pay. |
| C11.c.1. Are they reliable services?  | ⊠ <mark>Yes</mark> □ No   |
| C11.c.2. If no, why not?  | -   |
| C11.d.1. Do they meet the community healthcare needs?   |   |
| C11.d.2. If no, why not?  | -   |
| C12. a.1. What about the educational services?  | One stated: There are many private and public schools in the area. The closest universities are in Jbeil, Kaslik and Zouk Mosbeh.   |
| C12. a.2. Do you have schools/<br>training centers in your village?<br>(Note to moderator: please probe into the<br>different levels: primary schools, secondary<br>schools, universities and technical<br>schools) | One stated: We have private and public schools.   |

| C12.b. How do you evaluate the educational levels by age groups (youth, adults and elderly) in your communities? | - One stated: My father knew 3 languages: French, English and Arabic. In Tabarja, we have the smartest people amongst youth and elderly people in all Lebanon. Here, we sell lands just to pay for the education of our kids. |  |  |
|--|---|--|--|
| C12.c.1. Do you have any public/ or private center for Marine Sciences?  | One stated: No.   |  |  |
| C12.c.2. If yes, in which marine activities are they involved?   |   |  |  |
| C13.1. How do you describe the safety and security conditions in your area?                                      | - One stated: 70% (Not really sure what he meant by this percentage)  |  |  |
| C13.2. Which parties play the major role(s) in this regard?  | One stated: The municipality.   |  |  |
| THEME 3:   | COMMUNICATION AND FEEDBACK MECHANISMS   |  |  |
| Q1. What are your most important information needs in relation to the upcoming oil exploration activity?         | One stated: They say: Eat and feed. [Sarcastically]. Don't eat alone. One stated: Concerning agriculture: we are suffering from the increasing numbers of industries; we honestly don't want to suffer more from pollution.   |  |  |
| Q2. How do you like to receive any future project updates?   | Tv. Cellphones. Live through conferences. Social media.   |  |  |
| Q3. If you have a problem/complaint, who do you go to in the community?  |   |  |  |
| ADDITIONAL NOTES   |   |  |  |

### TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON FOCUS GROUP DISCUSSION GUIDE FOR WOMEN May 23, 2019 Name of village: Jbeil Date of the discussion: Name(s) of attendees: Please introduce the oil drilling activities using the BIDs and posters and give the participants an Notes opportunity for questions and answers THEME 1 - STAKEHOLDER ENGAGEMENT AND IMPACT ASSESSMENT **DEMOGRAPHICS** Q1. Please introduce the oil drilling activities using the BIDs and posters. Once completed give the participants an opportunity for questions and you provide an answer to their questions as far as possible. If you cannot answer then please take the stakeholders contact details and tell them you will get the answer and get back in contact as soon as possible.

| Q2. Now, do you have questions?                  |   |  |  |
|--|---|--|--|
|  | THEME 2: SOCIO-ECONOMIC OVERVIEW  |  |  |
|  | A. DEMOGRAPHICS   |  |  |
| A.1.1. What is your name?                        |   |  |  |
| A.1.2. What is your age?                         | 50 years old 40 45 years old. 35 years old. 39 years old. 28 years old. 52 years old. 51 years old.                             |  |  |
| A1.3. What is your marital status?               | All women are married.  |  |  |
| A1.a. If married, how many children do you have? | I have two kids. I have a boy. I have three boys. I have two girls.   |  |  |
| A2.1. Are you from this village?                 | No, originally from Ramout. Originally from Chamat. Originally from Qaa. Yes. Originally from Amchit. Originally from Qaa. Yes. |  |  |

| A2.1. How long have you been residing in this village?  |  |
|---|--|
| A3. How big is the village?   |  |
| A4.1. Do you currently work? If yes, where and in which field?  | I work as a freelancer. I don't work. I am a housewife. I am a housewife. I am a housewife. I am housewife. I am housewife. I work as a nurse.   |
| A4.2. If no, why not?   | I am a housewife.  |
| В.  | SOCIO-ECONOMIC INDICATORS AT THE LOCAL LEVEL   |
| B1. What are the sources of income (including agriculture, wage employment, public transfers, remittances, gift-giving, etc.) available in your household?  B1.a. Which of the sources of income/income-generating activities that you have mentioned are typically performed by men and which by women? Why? | Men or kids [All women agreed]. One stated: Industry or employment. One stated: My husband works both in the sea and in a company. One stated: Employee. One stated: Employee. One stated: Fishermen All women agreed that they have no money coming from outside. |
| <b>B1.b.1.</b> Is credit available to access?   | -One stated:Of course. One stated: If you work, you can take a loan. It's the first question they ask. One stated: Well, they ask a lot of questions when taking a loan. If you don't work, you need a big Bank account.   |
| B1.b.2. What are the different constraints/challenges that men and women face when accessing these types of credit? Why?  | One stated: Nothing different.   |
| <b>B1.b.3.</b> Are they accessible equally to men/women?  | One stated: Yes. They don't care about gender. They care whether you work or not.  |

|  | T  |  |  |
|--|--|--|--|
|  | - One stated: Generally, in Lebanon, women work in the house and men         |  |  |
|  | outside.   |  |  |
| <b>B2.1.</b> In your household, could you  | -One stated: Both me   | en and women work in the house.  |  |
| describe who carries out which household chores and employment   | -One stated: Few me  | n help their wives.  |  |
| (household work, child care, farming,  | - One stated: When my kids were younger, my husband used to help me.         |  |  |
| etc.)?   | - One stated: If the man does something in the house, he thinks he's a hero. |  |  |
|  | [All laughed sarcasti  | _  |  |
|  | _  | e cases, men help their wives.   |  |
|  |  | ,  |  |
| B2.2. Who decides this allocation?   | -Some things are known to be mine, and some his. [All agreed]                |  |  |
| P2 De veu make economic desicions in   | -We mutually make  | decisions. [Majority agreed]   |  |
| <b>B3.</b> Do you make economic decisions in the household (e.g. selling crops,  | - One stated: My hus   |  |  |
| livestock or land, purchasing tools,   | •  | omething personal, I can ask for his opinion. However, the   |  |
| asking for a loan)?  | decision would be m  |  |  |
|  | decision would be milie.   |  |  |
|  | Skill level  | Job Type   |  |
|  |  | ,  |  |
| B4. Which types of economic activities are available in this village?  (note to moderator: please probe into low, medium and high skilled jobs as well as land-based livelihoods vs marine activities) | Low skilled  | <ul> <li>One stated: You can open a small shop and start a business. But you need a good capital.</li> <li>One stated: Any woman can do a catering business. She can make some food in her house, open a social media account and sell the products online.</li> </ul> |  |
|  | Medium skilled   | <ul> <li>One stated: Pubs.</li> <li>One stated: Bakeries.</li> <li>One stated: Handmade Crafts.</li> <li>One stated: kiosks by the beach.</li> <li>One stated: Kinder gardens by the beach (organizing events and activities for kids)</li> </ul>                      |  |

| High skilled           | <ul> <li>One stated: Schools.</li> <li>One stated: Cleaning companies. (Managed by women)</li> </ul> |
|------------------------|--|
| Other (please specify) | Note: They said that the abovementioned activities need license from the Municipality.               |

| B4.a. Who performs those activities? (note to moderator: please probe into gender: female vs male, age groups: youth vs adults vs elderly, nationality groups: Lebanese vs refugees)   | - One stated: Women in their 40-60s - One stated: Women older than 25 years old.   |
|--|--|
| B5. What other services (education, health, agricultural extension or any other rural services) and infrastructures (electricity, roads, water pumps) are available in this community? | <ul> <li>One stated: We have the best private and public schools and Universities. (Number one education)</li> <li>One stated: We also have the best Hospitals.</li> <li>One stated: Concerning agriculture, we can say that we don't have large territories, so we don't rely on it. We have apple and banana trees.</li> <li>One stated: My husband found that building apartments and shops and renting them is better than agriculture.</li> <li>One stated: There is no tendency for agriculture maybe because it's not easy or fast money.</li> <li>One stated: There are no recycling companies. All wastewater goes into the sea.</li> <li>One stated: Streets are a catastrophe.</li> <li>One stated: Concerning water, we don't have drinking water in all parts of the city.</li> </ul> |

| B5.a. Who in your household has access to and uses these services?   |  |
|--|--|
| B6. What are the main risks (economic, climatic, and political) that people in your community are confronted with? | <ul> <li>One stated: Economically, there are no job opportunities.</li> <li>One stated: Climatically, we suffer from high waves in winter that cover a lot of shops on the coastline.</li> <li>One stated: Politically, Muslims and Christians live peacefully together.</li> <li>However, we don't agree so much over politics.</li> </ul>  |
| B6.a.1. Do they affect all households equally?   | <ul> <li>One stated: If someone is not affected by a climatically, he is affected politically or economically.</li> <li>One stated: It differs between people and their interests.</li> <li>One stated: If a person works in the sea or in agriculture, his work is seasonal. He can't work in winter because of the bad weather.</li> </ul> |
| B6.a.2. Do they affect men/women differently?  | <ul> <li>One stated: All these things affect the family as a whole.</li> <li>One stated: The man can change the city to find a different job, but the woman must stick to her family.</li> <li>One stated: In our society, if a woman works, she is constantly exposed to provocations, from men. [All laughed sarcastically]</li> </ul>     |
| B6.b. How do households with varying degrees of wealth cope with and manage risks differently?                     | <ul> <li>One stated: If there's any financial or economic problem, it should be resolved by men. However, all the family should help.</li> <li>One stated: If a family is rich, it feels like they can handle the situation in an easier way.</li> <li>One stated: As they say, Money buys everything.</li> </ul>                            |
| B6.c. Do women/men cope with and manage these risks differently?   | - One stated: In my opinion, I think women are more flexible. They know how to overcome difficulties.  |
| B7. What social networks, formal and informal, exist in the community?   | - One stated: We have the Civil Defense, the Red Cross and Health clinics like Inaash.   |
| B7.a. Are these mixed or gender-specific?  | <ul> <li>One stated: They are mixed, but we can see that women play the biggest part in them.</li> <li>One stated: Civil Defense generally consists of men and Health clinics of women.</li> <li>One stated: Inaash always organizes activities for women.</li> </ul>  |

| B7.b. What roles do women/men play in their social networks?   | - One stated: Women are more patient than men.   |     |  |
|--|--|-----|--|
| B8. In your opinion, what are the factors that positively and negatively influence women empowerment in your community?  (Note to moderator: please probe into details of the main issues for women in this community) | One stated: Positively: -Education - One stated: Strong personality One stated: Social integration One stated: Shisha. [All laughed together] Some women said that only a strong personality matter. A strong woman can raise kids alone even if she was poor. And other women are educated but are sitting home with no job. One stated: Negatively: - Shisha [all laughed again] -Patriarchal normsViolenceSickness. |     |  |
| B9.1. Do you have any touristic site in this village?  | ☑ Yes □ No   |     |  |
| B9.2. If yes, where is it located and do you have tour operators? Boat trips?  | - One stated: Jbeil Castle, the Port, the Wax Museum, the Old Souk, the Roman Street, many ancient churches One stated: We have a mosque next to a church.   |     |  |
|  |  | Y/N | Location   |
| B10. Do you have any of the following in your village? If yes, please describe and indicate the location   | ooo. Nature reserves   |     | One stated: Yes, we have one on the street of Saint Charbel, not on the coastline. It's a plant and animal reserve. It's constantly restored. Families go there all the time.  |
|  | <b>ppp.</b> Temples,<br>palaces, castels   | Yes | <ul> <li>One stated: It is a roman temple.</li> <li>Outside we have Phoenician monuments.</li> <li>It was built by several cultures.</li> <li>One stated: All Byblos was surrounded by a fence. And the castle was outside the fence to protect the city.</li> </ul> |

|  | <b>qqq.</b> Ottoman<br>structures  |  | <ul><li>One stated: Not sure.</li><li>One stated: They say there is an Ottoman city under Byblos.</li></ul>  |
|--|--|--|--|
|  | rrr.Museums  |  | One stated: The Wax Museum   |
|  | <b>sss.</b> Religious<br>heritage  |  | One stated: Saint Youhanna ancient church. It is one of the oldest churches in the world. One stated: The Crusades-era Church of St. John-Mark. One stated: Church of Saint Charbel. |
|  | <b>ttt.</b> World Heritage   |  | <ul><li>One stated: The alphabet was created in our city.</li><li>One stated: Wherever you dig in the ground, you find ancient things.</li></ul>                                     |
| B11.1. Do you have adequate water supplies in your village?  | ✓ Yes □ No   |  |  |
| B11.2. What is the quality of water?   | <ul> <li>One stated: It differs between regions.</li> <li>One stated: It's clean.</li> <li>One stated: Water from Afaa is clean but water from Prophet Ibrahim river is not clean.</li> </ul>  |  |  |
| B11.3. What about electricity and waste management services?  (Note to moderator: Please probe on the coastal part of the village as well) | <ul> <li>One stated: No recycling companies. (There were many foreign companies but due to several reasons they stopped working.)</li> <li>One stated: There is one private company called "Bassil" that gives electricity. Electricity in all Lebanon is the same.</li> </ul> |  |  |

| <b>B12.1.</b> In general, are the roads in your village in good condition?  | ☐ Yes ☐ No  (some said yes some no)   |
|---|---|
| B12.2. Are there any public transport services?  (Note to moderator: Please probe on the coastal part of the village as well) | - One stated: No. The Municipality is bringing soon new buses to the city. However, on the coastline, we have ecological taxis that offer free rides. |
| B13.a. What illnesses are most prevalent in your community?   | - One stated: Cancerous diseases.   |
| <b>B13.b.</b> Which healthcare facilities are available in your village?  |   |
| (Note to moderator: Please probe into hospitals, public clinics, mobile clinics, distancesetc.).                              |   |
| B13.c.1. Are they reliable services? If no, why not?  | ⊠ Yes □ No  |
| B13.c.2. If no, why not?  |   |
| B13.d.1. Do they meet the community healthcare needs?   |   |
| B13.d.2. If no, why not and do you think you need more healthcare facilities in the area?                                     |   |

| <b>B14.a.1.</b> What about the educational services?  | One stated: We have many big and important universities and schools Like LAU. |  |  |  |
|---|---|--|--|--|
| B14.a.2. Do you have schools/ training centers in your village?   |   |  |  |  |
| (Note to moderator: please probe into the different levels: primary schools, secondary schools, universities and technical schools) |   |  |  |  |
| B14.b. How do you evaluate the educational levels by age groups (youth, adults and elderly) in your communities?                    |   |  |  |  |
| <b>B15.1.</b> How do you describe the safety and security conditions in your area?  | One stated: We have security checkpoints. Thank God we have no crimes.        |  |  |  |
| <b>B15.2.</b> Which parties play the major role(s) in this regard?  | One stated: The Security Forces.  |  |  |  |
|   | - One stated: God.  |  |  |  |
| B16. If you have a problem/complaint,   | - One stated: Social media.   |  |  |  |
| who do you go to in the community?  | - One stated: Municipalities.   |  |  |  |
|   | - One stated: Minister.   |  |  |  |
|   | - One stated: To political parties.   |  |  |  |
|   | - One stated: To the ones we elected.   |  |  |  |
| THEME 3:  | THEME 3: COMMUNICATION AND FEEDBACK MECHANISMS                                |  |  |  |
| Q1. What are your most important information needs in relation to the upcoming oil exploration activity?                            |   |  |  |  |
| Q2. How do you like to receive any future project updates?  | - One stated: News bulletin.  |  |  |  |

| ADDITIONAL NOTES   |  |
|--|--|
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| <ul> <li>Not all women seemed interested in the interview. Some of them didn't talk at all.</li> </ul> |  |
| Women mentioned that the worst thing is that fishermen have no insurance or compensation.              |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

## TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON FOCUS GROUP DISCUSSION GUIDE FOR UNEMPLOYED YOUTH AND CHILDREN

| Name of village:   | Anfeh                      | Date of the discussion: | 22/05/2019 |
|--|----------------------------|-------------------------|------------|
| Names of attendees :   |                            |                         |            |
| Notes  |                            |                         |            |
| THEME 1 DEMOGRAPHICS   | – STAKEHOLDER ENGAGEMENT A | ND IMPACT ASSESSMENT    |            |
| Q1. Please introduce the oil drilling activities using the BIDs and posters. Once completed give the participants an opportunity for questions and you provide an answers to their questions as far as possible. If you cannot answer then please take the stakeholders contact details and tell them you will get the answer and get back in contact as soon as possible. |                            |                         |            |
| Q2. Now, do you have questions?  |                            |                         |            |
|  | THEME 2: SOCIO-ECONOMIC    | OVERVIEW                |            |
|  | A. DEMOGRAPH               | ICS                     |            |
| A1.1. What is your name?   |                            |                         |            |

| A1.2. What is your age?   | -23<br>-24<br>-21<br>-20<br>-18<br>-22  |  |
|---|---|--|
| A2.1. Are you from this village?                                | Moderator: Do you live here?  All Stated: Yes and we live here One stated: Yes, but I live in Cheka   |  |
| A2.2. How long have you been residing in this village?          | All stated: Since birth   |  |
| A3. How many people live in the village?                        | On stated: 3,000 people. One stated: Maybe a bit more. One stated: The number of names on the voting registry would be way higher -But not all of those people live here.   |  |
| A4. What is the highest education level you've attained?        | One stated: student studying in elementary level Education One stated: studying architecture One stated: finished studying film One stated: studying financial engineering One stated: studying hairdressing One stated: Grade 12, general sciences One stated: studying Law M1 One stated: studied banking and finance, graduated 2 years ago and moving to the USA to continue my studies and work One stated: studying business administration |  |
| A5.1. Do you currently work?  If yes, where and in which field? | [all participants are unemployed]   |  |
| A5.2. If no, why not?   |   |  |
| 2. SOCIO-ECONOMIC INDICATORS AT THE LOCAL LEVEL                 |   |  |

One stated: There is only one school.

Moderator: What is it called?

One stated: Gebran [inaudible] School.

Moderator: Is it a public school?

One stated: Yes.

Moderator: Up to which grade does it have classes?

One stated: Grade nine.

Moderator: Where did you learn?

One stated: Whoever wants to continue their education they go to Cheka or Balamand, it depends on the

region and the families.

Moderator: How would you describe the education system of the region you live in here (Anfeh)?

One stated: You feel like you're a part of a family. The teachers are your neighbours and they treat you as a

part of their family

One stated: The teachers are very good. Don't believe that just because it's a public school the teachers aren't good. Now, the teachers have been changed but according to what we've experienced, all of the teachers are very good and everyone who graduated were successful.

One stated: But there is an obvious shortage. A whole village has just one school that has classes only up to grade nine.

Moderator: Where do you believe is there a shortage?

One stated: There should be a high school and a university in Anfeh. Anfeh is considered the biggest village

in the Koura. We have to leave the village to continue our education.

Moderator: Ladies, would you like to add anything that has not been mentioned already? System wise? One stated: but there is an upside. Within a radius of 10 km, we have multiple universities and high schools. That is something positive.

B1. How would you describe the current education system in your community? One stated: In Anfeh, no.

One stated: In Anfeh, the school only reaches grade nine. The school is not going to prepare us for the workforce because we have to move to another school.

Moderator: But currently in this community, do you not consider Anfeh and Cheka one region? [they answered by some form of body language or sign that was not mentioned. I assume they nodded based on the rest of the conversation]

#### Moderator: So is there no preparation?

One stated: I used to attend Bishmizzine High School which follows student centred classes but there were no conferences that prepare students for university. Universities do come and hold orientations for us but they are just a form of advertisement for them. They don't ask us what we like, there is no connection between school and university. We get to university confused not knowing what we want to do.

One stated: They tell us that we can get discounts if we get high grades and introduce us to the majors they offer but they don't try to establish a connection by asking what we like or telling us what we could do with those majors.

One stated: For us, I used to attend Sainte Famille, they used to prepare us and talk to us about the workforce. For example, many would like to become engineers but now we have an overload of engineers, so they told us to search for majors that aren't as saturated. The biggest proof is that I chose financial engineering which is a major that not many people choose. I chose it because I didn't want to get to a time when there would be too many of us.

One stated: I attend Balamand. They held an orientation for us and organised competitions in order to find out what we liked. For example, if you are creative they ask you questions and offer suggestions. [inaudible] But I still haven't chosen what I'm going to do.

One stated: It's the same for me. When I used to attend high school in Cheka, the universities also paid us a visit, told us what they offered and we had to choose what we liked most and which university.

One stated: I would like to add something. There was a major I was interested in and I couldn't pursue it because it was not available in this region, I would've had to go to the Beirut. The major was journalism. That wasn't an option for me, my father refused since he lives abroad and my mother is alone here so he didn't want me to live in a dorm. We have a shortage here. If you want you can look for a major and maybe you'll forced move to the Beirut. You know here how parents think that we can't live alone. This needs to be resolved. Maybe increase the main branches of private universities. As for the Lebanese university, for those who can't afford private universities or fail to pass the entrance exam, they should open up some majors here because there are many people doing majors they don't even like. I did chose finance and have a high GPA. [the moderator interrupts to ask if someone helped the young women choose]. I knew what I wanted to do but couldn't do it. I thought it through and decided that with this major I could adapt to any situation, not only in Lebanon. Whereas journalism is an opportunity, it requires talent. This also concerns major related to tv, film and theatre. We have a shortage in that respect.

One stated: The same thing happened to me with film. It wasn't available here so I went to Beirut.

One stated: At Balamand University, they do offer mass media and communication but it is only taught in English. There are no courses in Arabic or in French. The major is limited to English.

One stated: There also offer radio tv as a major but it's different.

Job Type

Skill level

# B3. Which types of economic activities are available in this village? (note to moderator: please probe into low, medium and high skilled jobs as well as land-based livelihoods vs marine activities)

**B2.1** Does it prepare students for the

If yes, how? If no, why not?

workforce?

|--|

| High skilled           |   |
|------------------------|---|
| Other (please specify) | Moderator: I want to make a comparison between marine activities and the activities you mentioned like Hawa chicken and the accounting firm for the gas station. This region is coastal. What marine activities are employing people from your age group to work at the beach?  One stated: Resorts, they employ lifeguards.  One stated: Some restaurants employ waiters during the summer.  One stated: Summer camps. |

Moderator: Does this office you mentioned employ more women or men?

One stated: There are more women than men.

One stated: There are a few men. One stated: There are four men.

One stated: There are approximately 10 men among 40 women.

One stated: There are 60 people.

Moderator: Why are there more women?

One stated The majority of the men from Anfeh are abroad or have only recently graduated. Men want to secure their future and the salary here is not enough. It works better for women. Men looks for other things.

Moderator: How old are the women employed there?

One stated: Between 23 and 35.
One stated: There a few married women.

Moderator: Among the people working in resorts and restaurants, are there more men or women? How old

are they?

One stated: There are more men. One stated: The maximum age is 24. One stated: The rest is abroad.

B3.a. Who performs those activities?

(note to moderator: please probe into gender: female vs male, age groups: youth vs adults vs elderly, nationality groups: Lebanese vs refugees)

Moderator: You were all quick to say there are more men working at resorts and restaurants.

One stated: Yes, because they work as lifeguards, bartenders, waiters etc.

Moderator: Are there any syrian refugees in this region?

[they all agreed]

Moderator: What is the situation like? Do they find more work than the Lebanese youth?

One stated: Syrians are getting employed more than the Lebanese because they get paid a cheaper wage.

Moderator: Where do they work the most? More than the Lebanese youth.

One stated: In construction. One stated: In restaurants. One stated: At gas stations.

One stated: Like they just said. People only care about their own interests, they'll employ whoever will get

paid less money.

One stated: Sometimes, even in clothing stores, you'll find the wives of these workers working.

One stated: But that is relatively limited. Their numbers in Anfeh have decreased.

Moderator: What is the percentage of refugees?

One stated: There was a refugee camp here. We got them to remove it. They were living in our buildings. Anyone who had a store or a garage ranted it out to multiple families. They started arming themselves and posed an actual danger. We signed a petition and we made them leave the village. Some moved to a region called Talet el Hay and others that have lived in Anfeh for a long time and are known to be trustworthy and decent families continued to live among us.

#### One stated: For example, we can find job opportunities where we live that help the youth here. It is possible that I, a university student, might need to work. I am able to find a job in the area I live in; I don't have to leave it. One stated: There should be projects in Anfeh that allow the youth to work. Projects like what? One stated: Creating job opportunities. One stated: They should check the needs of the market before choosing what projects. You need projects. What are they? One stated: I was talk with a quy I know and I asked him what he liked to do since we were sitting doing nothing. He answered something us young people would have fun with, that would unite us instead of us sitting separately at home or going out only to party. One stated: The only thing we do is eat and party. One stated: Something else should be made for the youth. For example, a new internet cafe opened up and it also has games like billiards and table football. Somewhere for young people to go and have fun. Also, I once did a project for university: In lebanon, we don't have water games. If we organised water games here in Anfeh, and I carefully studied this project with the food team and the team of people who would get employed, this would employ a lot of the labor force and would strengthen tourism in this area. One stated: All of the ideas they mentioned are good like the studies and tourist attractions. One stated: The oil project would be the most positive if it takes place. One stated: It wouldn't be positive for us. Not for Anfeh. Anfeh will not benefit as much as the national **B4.** In your opinion, what are the treasury and we don't even know where that money will end up. factors that positively and negatively One stated: Yes, of course but they might employ people from Anfeh. influence youth development in your One stated: Oil is a good thing for the whole country. community? One stated: They won't share the national treasury with all of us. [all the girls laughed] (note to moderator: please probe into One stated: If the oil project needs workers they can employ young men and women from Anfeh or even details of the main issues for youth in this older men that are unemployed or that need to work extra jobs. The would be very positive for Anfeh. community – are there any positive One stated: Salt. [this was interrupted] aspects? Are issues different for male One stated: Someone mentioned that some projects are hiring non-Lebanese workers because the wage they youths to female youth?) ask for is very low. So if we start any new project, first of all it will cost money and secondly they will recruit people who won't demand a high wage. So things will remain the same as long as our community thinks and acts this way. The percentage of non-Lebanese working will increase. The first step should be to employ locals, people from Lebanon because no Lebanese will accept the same wage as a Syrian or another foreigner. One stated: They should enlighten them first. Organise free activities that will actually benefit the people. There are still a lot of ignorant people. How should they enlighten people? One stated: For example, the movement could take a part in this. They can talk more about religion because people are still straying away from religion. One stated: I want to add that Anfeh is famous for its salt but the white gold, as it's called, stopped because just like they are choosing foreigners over locals, they are choosing foreign products over Lebanese products. [someone interrupts by saying "It's because it's cheaper".] Customs are not enforcing higher prices. The prices of foreign products are lower than that of local products. The government should really work on this issue not just for Anfeh but for the whole country. They should increase taxes on imported products so that the local product represents the region, such as the marketing of apples in the mountain area. The salt marshes are a representative of Anfeh that are disappearing and any livelihood that came from them stopped. Working on this issue could lead to the creation of more jobs for the villagers and start production back up. One stated: There are seven or eight historical churches. One stated: The castle. **B5.1.** Do you have any touristic sites in One stated: Tahet el-Rih Beach Front. this village? One stated: The resorts: Las Salinas and Marina del sol. One stated: There are restaurants. One stated: There is also the Mar Mtanios Azzi Grotto. Moderator: Are tours of these touristic sites organised? **B5.2.** If yes, where is it located and do

All stated: Yes. Many people partake in those tours.

you have tour operators? Boat trips?

|   |                              | Y/N | Location  |
|---|------------------------------|-----|---|
| B6. Do you have any of the following in your village? If yes, please describe and indicate the location | a. Nature reserves           | No  | One stated: They were considering making the Tahet el-Rih Beach Front a natural reserve where fishing would be prohibited. I don't know what ended up happening concerning that.  -Yes, fishing is already prohibited there.  |
|   | Temples, palaces,<br>castles | Yes | One stated: There is a citadel. One stated: It's called Bent el-Malak. Only one wall remains of it. Do they organise tours of that too? do they go by boat? One stated: Yes, they tour it but not by boat. When strangers come visiting we tell them to go take a look. One stated: Some people have more knowledge than we do, they can be proper guides. We don't have much experience in that field.   |
|   | 3. Ottoman structures        | No  | One stated: You'd have to ask Georges Sassine.  Moderator: Is he a geography professor? One stated: No, he is an architect. He's also a guide because he knows a lot about history, dates and all. One stated: He's an architect and he has also studied archeology.  |
|   | 4. Museums                   | No  | One stated: The things that would have been exhibited were been stolen during the french mandate. When they were digging in the water for the citadel, they discovered that there is a whole village underneath Anfeh. They found many tombs and a church beneath the St. Georges church.  One stated: At Tahet el-Rih. One stated: No, besides Tahet el-Rih. That's the head of it. There's a church underneath. There are many more. A lot of things we stolen. They found pots of gold and of teber [unclear]. The teber is a substance that turns anything into gold. That's what they used to tell us. My grandfather used to tell me that there were huge skeletons, one of which's legs were as long as the table. Everything was stolen.  Moderator:: Ladies have you also heard these stories? One stated: I've heard that there was a whole other city inside the Citadel in the water. One stated: There was gold. There was a treasure there. One stated: We've been told since we were little that it had a another city inside. |

|  | 5. Religious heritage   | Yes. | One stated: We have the oldest church of the virgin Mary in the world called Our Lady of the Winds. One stated: There is also the monastery of Our Lady Al-Natour. One stated: St. Catherine. One stated: They're located by the sea. We can take you on a tour. [they all laughed] |
|--|---|------|---|
|  | 6. World Heritage   | No.  |   |
| B7.1. Do you have adequate water supplies in your village? | One stated: The water project was just recently done. One stated: Now we have water 24/7. One stated: There were households who relied on their own private wells, but now they rely on the government project. One stated: There is a new sewer system also.   |      |   |
| B7.2. How is the quality of water?                         | One stated: It's good. [several people agree] One stated: There is a project at Tahet el-Rih that treats sewage water. Wastewater used to be dumped into the sea but now a company manages its treatment. That is why we are known for our clean sea.  Moderator: Is the water that you get at your homes clean? One stated: Yes. You can tell it's clean when you see it from how clear it is. One stated: you can tell just by looking, even before swimming in it. |      |   |

One stated: There is a problem.

One stated: The Anfeh scouts are recycling.

One stated: I was talking to ... and he said they stopped it.

One stated: A week ago, someone posted that they were going to start it up again.

One stated: There was a landfill they used to throw the garbage that came from Anfeh in, but the ministry has now passed a resolution mentioning that there are certain areas where garbage can't be dumped anymore. Since no one knows where to take the garbage, it's been piling up in an area inside of Anfeh. Now, we have a problem with waste management. A factory should be built to recycle the waste or an awareness campaign should be organised to incite citizens to start recycling at home.

One stated: I was saving that the scouts' recycling movement isn't that strong. It seems like it's been to be just for them and doesn't include the whole village.

One stated: No, they're gonna go around to everyone's homes and pass around special bags.

One stated: As for the electricity, it's the same as anywhere else in Lebanon.

One stated: Relying on generators.

One stated: They've just recently installed meters on generators.

management services?

B7.3. What about electricity and waste

(Note to moderator: Please probe on the coastal part of the village as well)

Moderator: Describe the beach, is there any garbage on it? One stated: No, there isn't any garbage on the beach.

One stated: If they don't find a solution concerning the issue I mentioned previously, it'll become a problem at the outskirts of Anfeh next to Hawa Chicken. They need to find a place to create landfills far from residential areas and on soil that is cannot be harvested. so as to not damage the environment.

One stated: Hawa Chicken is throwing away chicken waste.

One stated: Yes, that's right.

One stated: The municipality put a stop to that.

One stated: When you're returning home at a round 5 A.M., you can't open your car winds because of the

smell.

One stated: That's because of the smell of the slaughter.

Moderator: How does that impact marine tourism here? The garbage and what you've mentioned.

One stated: That doesn't reach this area here. It's a small area at the outskirts of Anfeh, it's not open for swimming or anything. It is closer to a cement factory and that area is an industrial area, it's not inhabited.

One stated: It has no impact.

Yes No

One stated: Some roads are good, some aren't.

One stated: In every region there are potholes and bad roads.

One stated: The roads inside the village are very good. The roads outside of the village are the responsibility of the Ministry of Labor not the municipality and those are the ones that needs repairs.

One stated: The main road.

One stated: That road was initially good but not long ago, they worked on the sewer system and water supplies. The government dug the road and then patched it up.

One stated: Here they asphalt the roads then they patch them up.

One stated: I wanted to say exactly that. Usually the roads are okay, but one they need to work on the water

supplies they start digging and they ruin everything.

**B8.2** Are there any public transport

B8.1. In general, are the roads in your

village in good condition?

services? (note to moderator: please probe on the coastal part of the village as well)

One stated: No.

One stated: People get to the coast by taxi (service) or they park in a parking lot and walk.

Moderator: So there is no need to take the bus?

One stated: No, it's close.

One stated: A public transport service like a running bus line inside the village does not exist.

One stated: The coast is close. One stated: It's a two minutes walk.

| B9.a. What are the main illnesses in the community?  | One stated: Cancer. One stated: Because of the pollution. One stated: The smoke coming from the cement factory. One stated: From the Holsem company and the Sabeh company. One stated: Statistics say that people from Cheka and Anfeh die mostly from lung cancer. That is according to studies and not rumours. One stated: Asthma, cancer, illnesses that are the result of dust more than the result of something you eat. One stated: On the coast, they develop illnesses related to the nerves. The sea's atmosphere affects them. A study that has been done says that the wind and the humidity might contribute to that. One stated: Rheumatism. One stated: In Anfeh, I've never heard of anyone saying I have a nerve disease. [they all laugh]  |
|--|--|
| B9.b. Which healthcare facilities are available in your village? (note to moderator: please probe into hospitals, public clinics, mobile clinics etc.) | One stated: There are very few facilities. Of course, we don't have a hospital. There's a clinic. One stated: That closed down a while ago. One stated: There are some doctors that do come to the clinic though. One stated: There a few medical practices.  Moderator: Is there no hospital close by? One stated: No. One stated: A hospital in Balamand will open soon. It's not done yet. One stated: It's five minutes away. One stated: The nearest hospital is Miri Hospital. One stated: Haykaliyeh Hospital. One stated: Batroun hospital. One stated: Al-Salam Hospital. It's the closest. One stated: Borji hospital. One stated: I think the most convenient is Al-Salam Hospital because it's on the main road and only seven minutes away.   |
| B9.c.1. Are they reliable services?  | Yes xNo  |
| B9.c.2. If no, why not?  | One stated: Those that are reliable are the ones that have a specific private floor. For example, in Batroun Hospital, the maternity ward is private. It's not government owned. One stated: All of the hospitals' departments are separate. One stated: You feel that the private wards are the only reliable ones.  Moderator: What makes you say that they are not reliable? One stated: Personal experience. [all participants said the same thing] One stated: The majority of the patients are dying either because of a doctor's mistake or the wrong medication or because they weren't admitted. One stated: We can't generalise. The doctors [inaudible] are very good. One stated: Exactly. The doctors of the region are getting jobs in Beirut. If you go to Beirut, the majority of the doctors are from Koura.  Moderator: What about the private practices you mentioned? Do you trust them? One stated: Yes, [all agreed]  Moderator: I want to know what you need in this region concerning healthcare facilities. I want each of you to say one thing. One stated: A clinic. One stated: If anything happens to someone in the middle of the night, you need two mins to [could not understand what participant meant] One stated: First aid centres. One stated: Red Cross Centre. One stated: There was one before and it closed down. One stated: Why did it close down? One stated: Why did it close down? One stated: No idea. One stated: No idea. One stated: They are not operational. One stated: They are not prepared or filled with water. They fill them up on demand. One stated: They are not prepared or filled with water. They fill them up on demand. One stated: They are not prepared or filled with water. They fill them up on demand. One stated: The market almost burnt down entirely and the civil defence never came. One stated: The market almost burnt down entirely and the civil defence never came. One stated: We need people who use their heart the most and that don't succumb to personal interests. I mean that before anyone tried to open any type of medical cen |

| B9.d.1. Do they meet the community healthcare needs?  | Yes No   |
|---|--|
| B9.d.2. If no, why not and do you think you need more healthcare facilities in the area?  |  |
| B10.a. What about the educational services? Do you have schools/training centres in your village?  (note to moderators: please probe into the different levels: primary schools, secondary schools, universities and technical schools) | Moderator: We've already established that you have one public school. How would you evaluate it? One stated: It's very good. It has a 100% passing rate. One stated: It has classes from kindergarten to grade nine. One stated: Its level is good. Even the teachers are good. One stated: It is still a bit traditional but they are progressing. It's still a public school and they don't the financial ressources to fix many things.  Moderator: We've established that the universities are a bit far? One stated: There is a university in Cheka. The Cheka branch of USEK. One stated: There is Balamand University. One stated: There are universities in Koura. One stated: There's a Lebanese University in Daher el-Naimi. One stated: There's one in Tripoli. One stated: The one in Koura is 15 minutes away.  One stated: Level wise, I think it's very high because according to studies, there is a high rate of educated people in Koura. One stated: The strongest branches are always located here. I know this because of my university. Balamand University is very good.  Moderator: How far is it? One stated: 10 minutes away. It's the best school for architecture in the country. My university USEK is also a good school for architecture along with ALBA which is a branch of Balamand. My university is the best at computer science in Lebanon. The departments are always different. You can tell thanks to the finals. During the midterms, the exams are harder, so when finals come around and the test arrive from the main branch to all other branches, they're easier from what you've already done. You then find out how your level was actually higher than the rest. |

#### Moderator: Who's getting educated more: men or women? One stated: Both men and women are getting educated. We are now in a time when there are as many educated men as women. Everyone is getting educated. One stated: I think, the percentage of women is actually higher than that of men. One stated: Men are being coddled so they're getting confused. One stated: I do believe the same thing, but men have the option to build up a life from something else. Parents prefer that ladies go to university so that they can build a life for themselves and become independent. A man can adapt to anything. One stated: On the contrary. One stated: I believe the same number of men and women are getting educated. One stated: I think more girls are getting educated. It seems like guys don't care about education. They believe they can do the same jobs as their fathers. They can find work anywhere. One stated: I think it's an equal number. We have a reached a time when women want to learn and so do men. One stated: It comes back to the parents' mentality. Some may tell their child that he doesn't need to continue learning. Each person's reference is their household. We also feel that more women are getting educated is higher because the percentage of women is higher. There are men and women without an education **B10.b.** How do you evaluate the anywhere, but nowadays there is no one left without an education. There are in the end more women that educational levels by age groups men, it's seven to one. (youth, adults and elderly) in your One stated: I believe that the new generation of men are lazy and entitled but the women still want to receive communities? an education. Moderator: Which age group do you think has more education? yours or older people? One stated: Ours, of course. One stated: Us because they used to tell women they couldn't get an education and that they had to take care of their husband's homes. They used to teach men more. Now education is available for both. One stated: There are more possibilities now also. Before people didn't continue learning because they had to go to Beirut and they couldn't. One stated: Education is a requirement now. One stated: Jessy's comment was about the future generation, I believe, not ours. We've made it. The generation that is now in the ninth grade, those are the people who are getting lazy. Moderator: So you were talking about the generation after you? One stated: Yes. One stated: The generation that is in the ninth grade and has not reached grade 12 or university. It's also due to the additional exposure to technology that is distracting them. When we were there age, we did have phones but it we didn't possess the same things they do now. They have access to everything. One stated: There is security here. There are cameras in the street and the municipality has posted guards that keep watch. One stated: There is a army base also. One stated: The region is safe. Moderator: What are the security conditions here? for example, are the roads lit? One stated: Yes [sarcastically] **B11.** How do you describe the safety One stated: The roads are lit when there's electricity. and security conditions in your area? One stated: 100%. It all depends on whether or not there is electricity. Which parties play the major role(s) in One stated: They should find a solution for that because that is dangerous. [meaning it's dangerous not to this regard? have lit roads at night] One stated: At night, in our neighbours, the street lights are lit, but not on the main road. I would rather. One stated: I agree. The main road is dangerous. One stated: There is one village in Lebanon on the main road. That section is now the responsibility of the municipality but I don't know why they don't turn the lights on. Each municipality should turn the lights on in its village.

One stated: It depends. As has been said, if it concerns refugees for example, we go to the municipality.

[inaudible]

One stated: We go to the concerned party.

One stated: Depends on the problem

One stated: If it's about personal matters to the police. One stated: Or we resolve the problem on our own.

One stated: We can resort to social media. Make the people responsible feel ashamed.

-Social media is very powerful. There are pages that will fight and arouse people to support its cause. Many people get influenced and a change often happens. For example, there was a problem in Hamatoura. We signed a petition online against a particular party. The power of the internet cannot be suppressed anymore.

Moderator: Do you think that if you want to raise a complaint and it doesn't lead to anything, you would resort to social media?

One stated: Yes, of course.

One stated: Social media has a lot of influence and will reach the concerned parties.

One stated: The media reaches everywhere.
One stated: People get famous off of social media.
One stated: People are brainwashed because of the media.

#### THEME 3: COMMUNICATION AND FEEDBACK MECHANISMS

One stated: If you find oil, will it stay in Lebanon or will you export it?

One stated: How many barrels will they retrieve per day?

One stated: I want to ask about something current. We've heard that oil has been limited in some regions

and that gas stations don't have enough oil, only a limited quantity.

One stated: The strike.

One stated: I think that has been resolved.

One stated: Anything that I thought has already been asked.

One stated: Same as them.

One stated: I think it would create Jobs. This domain doesn't have many job opportunities in Lebanon and

the youth is moving to other countries to get work. So I want to know if they will help with jobs.

One stated: Security.

One stated: Will the area where the drilling will take place benefit more than others? From an economic standpoint, what are we gaining other than people coming to Anfeh to buy things from here and job opportunities. You have said that the chance of an oil spill is one in a million, but if that unfortunately happens,

how will that be handled. For example, if an accident occurs with the fishermen.

Moderator: As I've told you before, the drilling will occur six km away from the beach and there will be a 500m radius safe zone around drilling vessels that will be free of people. The risk is very low as we have said. If it happen, there are plans in place. It is only natural.

### Q3-1. What are your most important information needs in relation to the upcoming oil drilling activity?

B12. If you have a problem/complaint,

who do you go to in the community?

One stated: In general, there is no benefit without a disadvantage. That's life. There is a positive and a negative. Something negative will happen for sure but let's hope that it won't outweigh the positive.

One stated: At Balamand University, there is a new major called Petroleum engineering. Will there be communication between you and the university? Will you allow the students to see how the drilling procedure happen in real life (have practical courses)? Would you need the Balamand graduates that have majored in this? Will they be involved in the project.

The exploration phase of the project is very small, there is a chance that Total will drill and find nothing. So at the minute, everything is quite small. If they discover the potential. [Moderator interrupts to specify that the woman meant in the later period]. In the later period, definitely. We are in engaging with Balamand University, so there will probably be much more communication between the two. This stage is full, but in the future, we will be doing more studies, more engagements, more chances. We will engage with universities and get petroleum engineers from Lebanon on board, in the future if they discover hydrocarbure.

Moderator: The exploration will take only two months, so that won't be enough to sign an employment contract or get a position.

One stated: I was talking about later on. They could do internships and be an example for the students.

Q-13-1. How would you like to receive any future project updates?

One Stated: By email.
One stated: Through social media.
One stated: It doesn't have to be limited to emails. Anything online, even on whatsapp.
[everyone agrees that online is the best method]

ADDITIONAL NOTES

## TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE — STAKEHOLDERS — INDUSTRY

| Location of Interview: (Village/Caza/Block Number):                                  | Anfeh Block   | Number 4  | Date of interview :            | 27/05/2019               |
|--|---|---|--------------------------------|--------------------------|
| Name of Interviewee :  |   |   |                                |                          |
| Interviewee Gender :   | Male  |   |                                |                          |
| Interviewee Postion :  | Does saltwork   | ks  |                                |                          |
| Name of Interviewer :  | Wahib Izmira  | ıghdi   |                                |                          |
| Notes  |   | luce the oil drilling activities<br>for questions and answers | using the BIDs and posters and | give the participants an |
|  |   | A. INDUSTRIES   |                                |                          |
|  | GI  | ENERAL INFORMATIO   | N                              |                          |
| A1.1. Are you from this village?   | Yes.  |   |                                |                          |
| A1.2. How long have you been residing here?  | Ever since i was born in 1937.  |   |                                |                          |
| A2. What is the population size of the community?                                    | Between 10,000 and 15,000 citizen live in Anfeh.  |   |                                |                          |
| A3. Please describe briefly your economic/business activity. What do you exactly do? | I used to work at a factory, and then I started doing salt works (people come to me from Beirut and Antelias asking for salt, I sell one kilogram of salt for 1 USD. One kilogram of commercial salt is sold for 100 LL; people who buy this kind of salt do not know what they're eating. The government should look into it.)  I own one small salt maker   |   |                                |                          |
| A4. How long has your business been operating?                                       | I started doing salt works in 1955 or 1960  |   |                                |                          |
| A5. Is it the main source of income in your household?                               | My kids live abroad. I couldn't send them to school. They do work, but barely make ends meet, and they send me a small amount of money. My second income is from this machine.  I'm 82 years old, and my face is a proof all my hard work. I'm not supposed to still be working at this age but the problem is that my salt maker happens to be located on Government Property; if I stop working, someone else is going to take it. The government used to give us a permit, but not anymore. This is why I have no choice but to work and pay my expenses.  I consider it now like a hobby, people sometimes come from Beirut to buy from me but it's not my main source of income. |   |                                |                          |
| A6. How many dependents are there in your household?                                 | I have three kids; two sons who live in the US and a daughter who's married.  |   |                                |                          |
| A7. Do you have employees?   | ☐ Yes   | ── <del></del>  |                                |                          |

| A7.1 If yes, how many and please probe into Gender, Nationality, and Age Groups                        |   |
|--|---|
| A8. In what roles are women involved?  | My wife doesn't work with me.   |
| A9. How would you evaluate the performance (growth/decline) of your business for the past three years? | It didn't change. The business is still the same, what changes is the salt crop (some years the grain is coarse, other years it's dry) and the technique used (I sieve coarse and soft grains out)  I used to purify all the salt by myself (100 bags = 15 kilograms), but my eyesight became weak so I started paying 5,000 LL per bag to get it purified. |
| A9.a. What factors have influenced this growth/decline?  | The Egyptian salt (the clean Lebanese salt is sold for 140 USD/ton approximately, however the Egyptian salt is sold for 30 USD/ton)   |
| A9.b. What were approximately the annual revenues vs. expenses last year (2018)?                       | With all my hard work, I barely make 2000 USD/year. There are also many expenses (helpers and cleaners). Last year the annual revenue was between 6,000 USD and 9,000 USD   |
| A10. What are the conditions for business development in your community?                               | There's no condition. The resources are limited to a salt maker.  |
|  | CLIENTELE AND SOCIO-ECONOMIC ASPECTS  |
| A11. Who are your clients?   | My clients are from Tanourine, Beirut, Okaibe, Kfarabida  |
| A12. Is your business seasonal? Please describe  | I fix the salt maker in March, and this process takes up to two months of work. If it rains, we can't work.   |
| A13. What other types of businesses are available in this area? Specifically on the shore?             | Restaurants (Tahet el Rih) and Factories.   |

| A14. How would you describe the current coastal resource conditions in your community?                    | Fishing   |
|---|---|
| A15. What are the factors that positively or negatively influence your business?                          | Lack of organization (the government is not spreading awareness). The fishermen are catching fish before they have the chance to reproduce, in addition to the large number of fishermen and pollution. |
| A16. How much does your business rely on marine resources?  | ☑ a. Extreme ☐ b. Very High ☐ c. High ☐ d. Moderate ☐ b. Low ☐ b. None  |
| A17.1. Are you located in a village with cultural heritage?   | ⊠ <mark>Yes</mark> □ No   |
| A17.2. Are there any touristic sites or nature reserves in the neighborhood? If yes, please describe them | ☑ Yes □ No (the old market, tahet el rih, the castle, olive trees)  |
| A18. How much your business relies on such sites?   | ☐ a. Extreme ☐ b. Very High ☐ c. High ☐ d. Moderate ☐ b. Low ☑ <mark>b. None</mark>   |
| A19.1. Do you have adequate water supplies in this area?  | Yes, in Anfeh the rain is preserved during winter. At first, the water quantity wasn't enough for the whole village. We also have a spring and a river (according to some experts)                      |
| A19.2. What about electricity and waste management services?  | There's a company that manages the waste every two days. We have electricity generators.  |

| A19.a. Are you satisfied with the infrastructure in this village?  | Yes  |
|--|--|
| A19.b. How the infrastructure can affect your business?  | No   |
| A20.1. How do you find the condition of local roads?   | The local roads are in a good condition  |
| A20.2. Are there any public transport services?  | No   |
| A21.1. How do you describe the safety and security conditions in this area?  | It's safe and secure   |
| A21.2. Which parties play the major role(s) in this regard?  | Municipalities.  |
| A22.1. What illnesses are most prevalent in your community and how do you describe the healthcare facilities in this area? | Cancer. My coworkers died from cancer because of fibrocement.  We don't have hospitals in Chekka, the nearest hospitals are in Tripoli |
| A22.2. Do they satisfy the community needs?  | Yes  |

| A23. What are the forms of communication used by people in your community?   | ⊠ a. <mark>Telephone</mark> □ b. Internet □ c. Mail Services □ d. Other   |  |  |
|--|---|--|--|
| ENVIRONMENT AND NATURAL RESOURCES  |   |  |  |
| A24.1. Are there any natural resources (both offshore and onshore) available in the neighborhood?  | <ul> <li>✓ Yes □ No,</li> <li>Chekka is filled with olive trees and there are many kinds of fish in Anfeh (لؤس).</li> </ul> |  |  |
| A24.2. If yes, who are the parties managing those natural resources? And who are the ones who make use of them?  | These are private sectors, people manage their own orchard.   |  |  |
| A25.a. Please describe briefly the climate in this area?   | The weather is good. In the past, the weather used to cause asthma.   |  |  |
| A25.b. Please describe briefly the air quality in this area?   | The factories purified the air by adding filters. (this action was not done before and it used to cause many problems)      |  |  |
| A25.c. Please describe briefly the water quality in this area?   | The water is not polluted   |  |  |
| A25.d. Please describe briefly the Offshore Ecology and Geology in this area?  | It's available in Batroun, not in Anfeh.  |  |  |
| A25.e. Please describe briefly the shore side Ecology and Geology in this area?  | Not Asked   |  |  |
| A25.f. Please describe briefly the Natural Resources in this area?   | Olive trees are affected by the air polluted by the factories in Anfeh.   |  |  |
| A26.1. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment in this area? | ☐ Yes ⊠ <mark>No</mark>   |  |  |
| A26.2. If yes, how is your business impacted? Please describe.   |   |  |  |

## TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE – STAKEHOLDERS – INDUSTRY

| Location of Interview: (Village/Caza/Block Number):  | Batroun  | Date of interview: | 29-May-2019 |  |
|--|--|--------------------|-------------|--|
| Name of Interviewee :  |  |                    |             |  |
| Interviewee Gender :   | Male   |                    |             |  |
| Interviewee Postion :  | Head of Batroun Fishermen Coop   |                    |             |  |
| Name of Interviewer :  | Wahib Izmiraghdi   |                    |             |  |
| Notes  | Please introduce the oil drilling activities using the BIDs and posters and give the participants an opportunity for questions and answers   |                    |             |  |
| THEME 1 – STAKEHOLDER ENGAGEMENT AND IMPACT ASSESSMENT DEMOGRAPHICS  |  |                    |             |  |
| Q1. Please introduce the oil drilling activities using the BIDs and posters. Once completed give the participants an opportunity for questions and you provide an answers to their questions as far as possible. If you cannot answer then please take the stakeholders contact details and tell them you will get the answer and get back in contact as soon as possible. |  |                    |             |  |
| Q2. Now, do you have questions?  | I hope that this project does not affect this country negatively, like tourism for example. The Industrial sector is becoming weaker, factory after factory are being closed, and we do not want the Tourism sector to be affected too. We do not want foreign countries to benefit from our country whilst the people stand watching. The fishermen are a priority. There is a sea mafia in a country; they take what is not theirs. We are filing complaints but nothing is being done. I do not know where we are heading.  I am glad that this project is here and that it will boost the country, but I do not want it to ruin the fishermen's lives. I want them to have work opportunities from this project, maybe they get new improved tools for their fishing, because a time will come during drilling when they will fear getting on boats and sailing near the site. We want compensation or other alternatives. Maybe the company that will work this project, maybe it will offer the fishermen jobs and decent salaries, if this happens, everyone will be happy and thankful. There will be no fear of this project. |                    |             |  |

| A. INDUSTRIES   |  |  |  |
|---|--|--|--|
| GENERAL INFORMATION   |  |  |  |
| Yes.  |  |  |  |
| I was born here and my home is here, I was raised by the sea, my father made a business for us.   |  |  |  |
| I have a lot on my mind and to be honest I do not know the numbers.   |  |  |  |
| My father started a Commercial Corporation of selling tools and paints. We had some problems with VTA and the Ministry of Finance, but today all our papers are legal and clear. When it comes to fishing, it might be a hobby or a business but nonetheless it is my therapy where I forget all my troubles and problems.  Interviewer: The fishing you do, do you consider it a large or medium business? |  |  |  |
| My work is distinguished; my friends usually wait for me and on weekends I distribute my catch.   |  |  |  |
| I was eight years old when I hopped into a fishing boat for the first time. This was forty years ago.   |  |  |  |
| No. The main source of income is the corporation, but, if the country's circumstances remain as is, then I will not be able to provide for my family. People from the outside think that I am doing great, but if you look into the inside, it is a disaster.   |  |  |  |
| I have four girls and one boy. One daughter is nineteen years old she started university, and the rest are all young.   |  |  |  |
| ☐ Yes ☑ No Sometimes I pay a man or two to help me per fishing trip. In the corporation my brothers help me.  |  |  |  |
| Not Asked.  |  |  |  |
| They are not involved.  |  |  |  |
|   |  |  |  |

| A9. How would you evaluate the performance (growth/decline) of your business for the past three years? | In the past three years the performance of my business declined.  |
|--|---|
| A9.a. What factors have influenced this growth/decline?  | The work flow is very weak, and all traders need money. We sell our merchandise with non-profit prices in order to sell and be able to pay our expenses. I might even sell something for half its price in order to eat. This is happening to everyone.   |
| A9.b. What were approximately the annual revenues vs. expenses last year (2018)?                       | I have numbers but I do not look at them. My brothers are in charge because I am not allowed to get stressed. We lost my dad to diabetes due to stress and we do not want the same thing to happen to me.  Interviewer: In the Sea?  I am better than many others, and the fish I catch is spent instantly. But I am happy with my life.  |
| A10. What are the conditions for business development in your community?                               | The conditions are that the random and illegal (con) fishermen who catch all the fish be stopped. The fishermen then will benefit more. Sometimes each fisherman catches two to five kilos of fish, and then this illegal fisherman gets the and takes everything. They wait for another two weeks to get a similar catch. If the government regulates the coastal work it will be great, because if things continue as such, there will be no more fishermen in Lebanon.  CLIENTELE AND SOCIO-ECONOMIC ASPECTS   |
|  | Some small companies, and the people of Batroun, sometimes from outside   |
| A11. Who are your clients?   | Batroun because we are known and people love us. Our prices are not high. There are companies in Chekka that prefer to buy tools from Chekka and the same applies to Batroun and to Beirut. They sell to whom they feel deserves to be benefitted. Here there is Oil Company; they buy tools from both Batroun and outside of Batroun. They are better than the Chemical Company, the Chemical Company does not buy anything from Batroun and it harms Batroun.  Interviewer: Is there someone you refer to in your work? Someone with higher responsibility?  There are people who are responsible but we do not know them. We reached out to the General Manager of the Ministry of Agriculture and he wants to help us. We reached out to someone in the North and he is willing to help us. |
| A12. Is your business seasonal? Please describe  | Yes, it is seasonal. Now is the season when the fish swims near the shore to ovulate. And the government made an announcement on 15 May to stop sewage  |

|   | and dirt into the waters, but no one listened, they are pulling huge numbers of  |
|---|--|
|   | Batrakh fish, it is catastrophic.  |
|   |  |
|   | <b>Interviewer:</b> What is the weakest season?  |
|   |  |
|   | This question is better to be ested to a professional fishermen, my fishing trips  |
|   | This question is better to be asked to a professional fisherman, my fishing trips  |
|   | are random and I fish small things. I go out two or three times per week, the  |
|   | professional fisherman goes out every day and every season. Even in winter,  |
|   | they suffer a lot because they have to gain money and eat.   |
|   |  |
|   |  |
| A13. What other types of businesses   | The municipality should list those to you. We have restaurants and beaches but   |
| are available in this area? Specifically  | I do not have names.   |
| on the shore?   | There is no fish market on the shore.  |
|   | There is no fish market on the shore.  |
|   |  |
|   |  |
| A14. How would you describe the   |  |
| current coastal resource conditions in  | A long time ago, all fishermen used to make salt and sell it. This work stopped  |
| your community?   | and I think the reason is importing salt from abroad, it is very cheap.  |
|   |  |
|   |  |
|   |  |
|   | A factor that negatively influenced my business was the barrels full of  |
|   |  |
|   | chemicals thrown into the sea. And they affected the fish, sponges, and sea  |
|   | chemicals thrown into the sea. And they affected the fish, sponges, and sea urchins. This was not documented, i do not know if it is true or not. A while  |
|   | chemicals thrown into the sea. And they affected the fish, sponges, and sea urchins. This was not documented, i do not know if it is true or not. A while ago the Chemicals Company threw acid into the sea and it affected the natural  |
|   | chemicals thrown into the sea. And they affected the fish, sponges, and sea urchins. This was not documented, i do not know if it is true or not. A while ago the Chemicals Company threw acid into the sea and it affected the natural resource. They said they solved the issue but I do not know if it is true. We find   |
|   | chemicals thrown into the sea. And they affected the fish, sponges, and sea urchins. This was not documented, i do not know if it is true or not. A while ago the Chemicals Company threw acid into the sea and it affected the natural  |
|   | chemicals thrown into the sea. And they affected the fish, sponges, and sea urchins. This was not documented, i do not know if it is true or not. A while ago the Chemicals Company threw acid into the sea and it affected the natural resource. They said they solved the issue but I do not know if it is true. We find   |
| A15. What are the factors that  | chemicals thrown into the sea. And they affected the fish, sponges, and sea urchins. This was not documented, i do not know if it is true or not. A while ago the Chemicals Company threw acid into the sea and it affected the natural resource. They said they solved the issue but I do not know if it is true. We find fish there more than other spots, but it might be a certain substance attracting  |
| positively or negatively influence  | chemicals thrown into the sea. And they affected the fish, sponges, and sea urchins. This was not documented, i do not know if it is true or not. A while ago the Chemicals Company threw acid into the sea and it affected the natural resource. They said they solved the issue but I do not know if it is true. We find fish there more than other spots, but it might be a certain substance attracting the fish.  Another factor is wars, during the 2006 war we were banned from sailing.  |
|   | chemicals thrown into the sea. And they affected the fish, sponges, and sea urchins. This was not documented, i do not know if it is true or not. A while ago the Chemicals Company threw acid into the sea and it affected the natural resource. They said they solved the issue but I do not know if it is true. We find fish there more than other spots, but it might be a certain substance attracting the fish.  Another factor is wars, during the 2006 war we were banned from sailing.  An additional factor is the Lebanese Armed Forces Training sessions. The  |
| positively or negatively influence  | chemicals thrown into the sea. And they affected the fish, sponges, and sea urchins. This was not documented, i do not know if it is true or not. A while ago the Chemicals Company threw acid into the sea and it affected the natural resource. They said they solved the issue but I do not know if it is true. We find fish there more than other spots, but it might be a certain substance attracting the fish.  Another factor is wars, during the 2006 war we were banned from sailing.  An additional factor is the Lebanese Armed Forces Training sessions. The training sometimes affects the nets and therefore the fish.  |
| positively or negatively influence  | chemicals thrown into the sea. And they affected the fish, sponges, and sea urchins. This was not documented, i do not know if it is true or not. A while ago the Chemicals Company threw acid into the sea and it affected the natural resource. They said they solved the issue but I do not know if it is true. We find fish there more than other spots, but it might be a certain substance attracting the fish.  Another factor is wars, during the 2006 war we were banned from sailing.  An additional factor is the Lebanese Armed Forces Training sessions. The training sometimes affects the nets and therefore the fish.  And the random chaotic fishing activity is the most harmful factor. Those   |
| positively or negatively influence  | chemicals thrown into the sea. And they affected the fish, sponges, and sea urchins. This was not documented, i do not know if it is true or not. A while ago the Chemicals Company threw acid into the sea and it affected the natural resource. They said they solved the issue but I do not know if it is true. We find fish there more than other spots, but it might be a certain substance attracting the fish.  Another factor is wars, during the 2006 war we were banned from sailing.  An additional factor is the Lebanese Armed Forces Training sessions. The training sometimes affects the nets and therefore the fish.  And the random chaotic fishing activity is the most harmful factor. Those random fishermen and the Oil Drilling Company now are enough causes to  |
| positively or negatively influence  | chemicals thrown into the sea. And they affected the fish, sponges, and sea urchins. This was not documented, i do not know if it is true or not. A while ago the Chemicals Company threw acid into the sea and it affected the natural resource. They said they solved the issue but I do not know if it is true. We find fish there more than other spots, but it might be a certain substance attracting the fish.  Another factor is wars, during the 2006 war we were banned from sailing.  An additional factor is the Lebanese Armed Forces Training sessions. The training sometimes affects the nets and therefore the fish.  And the random chaotic fishing activity is the most harmful factor. Those   |
| positively or negatively influence  | chemicals thrown into the sea. And they affected the fish, sponges, and sea urchins. This was not documented, i do not know if it is true or not. A while ago the Chemicals Company threw acid into the sea and it affected the natural resource. They said they solved the issue but I do not know if it is true. We find fish there more than other spots, but it might be a certain substance attracting the fish.  Another factor is wars, during the 2006 war we were banned from sailing.  An additional factor is the Lebanese Armed Forces Training sessions. The training sometimes affects the nets and therefore the fish.  And the random chaotic fishing activity is the most harmful factor. Those random fishermen and the Oil Drilling Company now are enough causes to  |
| positively or negatively influence  | chemicals thrown into the sea. And they affected the fish, sponges, and sea urchins. This was not documented, i do not know if it is true or not. A while ago the Chemicals Company threw acid into the sea and it affected the natural resource. They said they solved the issue but I do not know if it is true. We find fish there more than other spots, but it might be a certain substance attracting the fish.  Another factor is wars, during the 2006 war we were banned from sailing.  An additional factor is the Lebanese Armed Forces Training sessions. The training sometimes affects the nets and therefore the fish.  And the random chaotic fishing activity is the most harmful factor. Those random fishermen and the Oil Drilling Company now are enough causes to  |
| positively or negatively influence  | chemicals thrown into the sea. And they affected the fish, sponges, and sea urchins. This was not documented, i do not know if it is true or not. A while ago the Chemicals Company threw acid into the sea and it affected the natural resource. They said they solved the issue but I do not know if it is true. We find fish there more than other spots, but it might be a certain substance attracting the fish.  Another factor is wars, during the 2006 war we were banned from sailing.  An additional factor is the Lebanese Armed Forces Training sessions. The training sometimes affects the nets and therefore the fish.  And the random chaotic fishing activity is the most harmful factor. Those random fishermen and the Oil Drilling Company now are enough causes to send Lebanese fishermen to the mountains or outside of Lebanon.  |
| positively or negatively influence  | chemicals thrown into the sea. And they affected the fish, sponges, and sea urchins. This was not documented, i do not know if it is true or not. A while ago the Chemicals Company threw acid into the sea and it affected the natural resource. They said they solved the issue but I do not know if it is true. We find fish there more than other spots, but it might be a certain substance attracting the fish.  Another factor is wars, during the 2006 war we were banned from sailing. An additional factor is the Lebanese Armed Forces Training sessions. The training sometimes affects the nets and therefore the fish.  And the random chaotic fishing activity is the most harmful factor. Those random fishermen and the Oil Drilling Company now are enough causes to send Lebanese fishermen to the mountains or outside of Lebanon.  Interviewer: And positively?   |
| positively or negatively influence your business?                                   | chemicals thrown into the sea. And they affected the fish, sponges, and sea urchins. This was not documented, i do not know if it is true or not. A while ago the Chemicals Company threw acid into the sea and it affected the natural resource. They said they solved the issue but I do not know if it is true. We find fish there more than other spots, but it might be a certain substance attracting the fish.  Another factor is wars, during the 2006 war we were banned from sailing. An additional factor is the Lebanese Armed Forces Training sessions. The training sometimes affects the nets and therefore the fish.  And the random chaotic fishing activity is the most harmful factor. Those random fishermen and the Oil Drilling Company now are enough causes to send Lebanese fishermen to the mountains or outside of Lebanon.  Interviewer: And positively?   |
| positively or negatively influence your business?  A16. How much does your business | chemicals thrown into the sea. And they affected the fish, sponges, and sea urchins. This was not documented, i do not know if it is true or not. A while ago the Chemicals Company threw acid into the sea and it affected the natural resource. They said they solved the issue but I do not know if it is true. We find fish there more than other spots, but it might be a certain substance attracting the fish.  Another factor is wars, during the 2006 war we were banned from sailing. An additional factor is the Lebanese Armed Forces Training sessions. The training sometimes affects the nets and therefore the fish.  And the random chaotic fishing activity is the most harmful factor. Those random fishermen and the Oil Drilling Company now are enough causes to send Lebanese fishermen to the mountains or outside of Lebanon.  Interviewer: And positively?  No. The sea mafia is ruining everything. |
| positively or negatively influence your business?                                   | chemicals thrown into the sea. And they affected the fish, sponges, and sea urchins. This was not documented, i do not know if it is true or not. A while ago the Chemicals Company threw acid into the sea and it affected the natural resource. They said they solved the issue but I do not know if it is true. We find fish there more than other spots, but it might be a certain substance attracting the fish.  Another factor is wars, during the 2006 war we were banned from sailing. An additional factor is the Lebanese Armed Forces Training sessions. The training sometimes affects the nets and therefore the fish.  And the random chaotic fishing activity is the most harmful factor. Those random fishermen and the Oil Drilling Company now are enough causes to send Lebanese fishermen to the mountains or outside of Lebanon.  Interviewer: And positively?   |
| positively or negatively influence your business?  A16. How much does your business | chemicals thrown into the sea. And they affected the fish, sponges, and sea urchins. This was not documented, i do not know if it is true or not. A while ago the Chemicals Company threw acid into the sea and it affected the natural resource. They said they solved the issue but I do not know if it is true. We find fish there more than other spots, but it might be a certain substance attracting the fish.  Another factor is wars, during the 2006 war we were banned from sailing. An additional factor is the Lebanese Armed Forces Training sessions. The training sometimes affects the nets and therefore the fish.  And the random chaotic fishing activity is the most harmful factor. Those random fishermen and the Oil Drilling Company now are enough causes to send Lebanese fishermen to the mountains or outside of Lebanon.  Interviewer: And positively?  No. The sea mafia is ruining everything. |

| A17.1. Are you located in a village with cultural heritage?   |  |
|---|--|
| A17.2. Are there any touristic sites or nature reserves in the neighborhood? If yes, please describe them | The Minister of Environment once visited touristic sites in Batroun.  Archaeology officials too, they visited the Phoenician part of al Batroun but did not dare to enter the hidden part of the city which is located underneath the city. It is three or four levels below ground. |
| A18. How much your business relies on such sites?   | □ a. Extreme □ b. Very High □ c. High □ d. Moderate □ b. Low ☑ b. None  In tourism season, fishermen switch to other businesses like selling lemonade to make money. This is bad because the fishing sector is very nice and it is amazing, I hate to see people leaving it.         |
| A19.1. Do you have adequate water supplies in this area?  | Yes, we do. It improved with time.   |
| A19.2. What about electricity and waste management services?  | The services improved and evolved a lot over time.   |
| A19.a. Are you satisfied with the infrastructure in this village?   | There are contractors whose workers did not do the right job. People complained and now the contractors are doing what is right. There are old buildings, baton but old. No one is approaching this issue because of moving the inmates.   |
| A19.b. How the infrastructure can affect your business?   | Not Asked  |
| A20.1. How do you find the condition of local roads?  | They are improving according to the finances.  |

| A20.2. Are there any public transport services?  | Yes, there are, and they are very nice services.   |
|--|--|
| A21.1. How do you describe the safety and security conditions in this area?  | There has been a lot of focus on Batroun with respect to safety and security conditions, and the municipality's police are good men.   |
| A21.2. Which parties play the major role(s) in this regard?  | It has been peaceful for quite a time now; few quarrels had been witnessed before.   |
| A22.1. What illnesses are most prevalent in your community and how do you describe the healthcare facilities in this area? | There are no prevalent illnesses, sometimes a case in a hospital spreads out and people panic but nothing serious. The Batroun Hospital was a long time ago in a bad shape with respect to tools and equipment, but later on it improved and evolved and it is very good.  |
| A22.2. Do they satisfy the community needs?  | It does satisfy the community needs but there is a problem; in the case of a patients being treated on the expense of the Ministry of Health, the hospital is not getting paid for the medication it uses on these patients; and thus, it is not receiving more cases. The hospital prefers patients who pay for their own treatment because after all it has salaries to pay for the staff. |
| A23. What are the forms of communication used by people in your community?   | ☑ a. Telephone ☑ b. Internet ☐ c. Mail Services ☐ d. Other   |
|  | ENVIRONMENT AND NATURAL RESOURCES  |
| A24.1. Are there any natural resources (both offshore and onshore) available in the neighborhood?                          | ☐ Yes  |
| A24.2. If yes, who are the parties managing those natural resources? And who are the ones who make use of them?            | No one. If a certain country would like to manage them, they are most welcome.  Recently, Syrians are making use of them, they are catching urchins, selling them, and no one is able to stop them. If the Municipality's police try to stop a Syrian, he makes a deal with him.   |
| A25.a. Please describe briefly the climate in this area?   | The climate of Batroun in general amazing, but there comes an eastern northern wind that carries the smoke from the Chemical Factory, this happens for four times a year; one is unable to breathe oxygen. After people's complaints, they   |

|  | were forced to install filter, we did not witness them till no so maybe it worked.  |
|--|---|
|  | Humidity is very usual in this area.  |
| A25.b. Please describe briefly the air quality in this area?   | It is normal, and be it carrying chemicals or no is the same to me. Air is air.   |
| A25.c. Please describe briefly the water quality in this area?   | We stopped drinking natural water a long time ago; we buy Tannourine (Bottled Mineral Water) for the kids. However, they said that after the new installations, water id drinkable again especially if you use filters. I want to install filters and we are looking to save any amount of money we can.  |
| A25.d. Please describe briefly the Offshore Ecology and Geology in this area?  | A long time ago, the green on land was the same as the green in the water, today; there is no green in water. This is most evident near factories; the far you sail away from one, the clearer the water. The same applies to the fishery. At times you feel the fish is reproducing then it all vanishes. I remember a long time ago, divers saw coloured water, like the land inside the sea was leaking or breathing (metaphor). |
| A25.e. Please describe briefly the shore side Ecology and Geology in this area?  | Our region is all green. Then the coal mafia appeared, they burn what they can but they were stopped.   |
| A25.f. Please describe briefly the Natural Resources in this area?   |   |
| A26.1. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment in this area? | ⊠ Yes □ No  |
| A26.2. If yes, how is your business impacted? Please describe.   | I only know of the Chemical Plant, it has storage tanks full of acid, in case a tank is broken, the whole area is subject to disasters.  Floods occur sometimes, one time the sea took all my house's furniture. Sewer overflows too. Heavy rains caused a half a meter of water inside my house. However, 99% of the problems are solved.  |
|  | ADDITIONAL NOTES  |

The people who contacted me before, they assigned twelve tourists and twelve tourists. I did not agree to that. The idea is that if I have 20 fishermen, and they asked for twelve, what would I do with the remaining eight? they would quarrel.

Interviewer: Who contacted you?

An Oil Company. I need them to know the exact number of the professional fishermen. It is not fair to ask for twelve fishermen our of thirteen. There are professional fishermen and amateur fishermen, I consider myself to be an amateur fisherman. Even if they do want to take amateur fishermen to train and teach, let them chose the ones with moderate social status, not the billionaires.

After all, Oil Companies revive an entire country. We want them to help this country.

## TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE — STAKEHOLDERS — COMMERCIAL BUSINESS

| Location of Interview:<br>(Village/Caza/Block Number):           | Dbayeh   | Date of interview:             | 23/05/2019               |
|--|--|--------------------------------|--------------------------|
| Name of Interviewee:   |  |                                |                          |
| Interviewee Gender:  | Male   |                                |                          |
| Interviewee Postion:   | Owner  |                                |                          |
| Name of Interviewer:   | Margueritte Nassif   |                                |                          |
| Notes  | Please introduce the oil drilling activities opportunity for questions and answers | using the BIDs and posters and | give the participants an |
| B. COMMERCIAL BUSINESSES (TRADERS & SERVICES – FORMAL /INFORMAL) |  |                                |                          |
| GENERAL INFORMATION  |  |                                |                          |
| B1.1. Are you from this village?                                 | Yes, I am from Metn.   |                                |                          |

| B1.2. How long have you been residing here?                                 | For about 22 years, on the coast.  |
|---|--|
| B2. How big is the community/population size?                               | I am not quite sure, but Mount Lebanon holds about 60% of the population. We are considered a part of Mount Lebanon.   |
| B3. Please describe briefly your economic activity. What do you exactly do? | We have a scuba-academy, so we teach scuba diving. Another thing we do is we take projects from foreign companies that are related to cleaning the beach and the sea.  Interviewer: XDC?  Extreme Dive Center  Interviewer: So you not only teach scuba diving, you do other things as well. You can check our website. What we do is that we teach people how to dive, that is our activity. We sell gear. We also have a charter board, so we rent out boards, and we have a fishing club for people who want to fish using fishing hooks. We also give licenses for skippers. |
| B4. Is the business small or medium size?                                   | Mainly, our business revolves around small projects, because we are not a diving destination. Lebanon in general is not a diving destination, not because its environment is not diving material, on the contrary its environment is very much diving material. We have a lot of ships that sunk in our sea, so we can be a great touristic destination. Nevertheless, many problems are obstructing this from happening.  |
| <b>B5.</b> How long has your business been operating?                       | Since 1997   |
| B6. Is it the main source of income in your household?                      | Yes  |
| B7. How many dependents are there in your household?                        | No one, it's only me.  |
| B8.1. Do you have employees?  | ☐ Yes ☒ No I have interns. Interviewer: And when they do these internships for how long do they stay? They come for one or two seasons Interviewer: And are they males or females?   |

|   | They are mostly males.   |
|---|--|
|   |  |
|   |  |
|   |  |
|   |  |
| <b>B8.2.</b> If yes, how many and please probe into Gender, Nationality, and Age Groups.                | Not Asked  |
| B9. In what roles are women involved?   | To Attract men [Laughing]. This is a reality. When a pretty woman is at a resort, everyone would want to come.   |
| B10. How would you evaluate the performance (growth/decline) of your business for the past three years? | The business is declining severely.  |
| B10.a. What factors have influenced this growth/decline?  | In our industry, we have three or four factors. First is pollution. I am not talking about the actual pollution; I am talking about the commercial pollution.  Interviewer: So there is no actual pollution?  Yes there is, but there is a huge difference between when you get a cut on your hand and just spread the word, and when you just quietly heal it. Lebanon suffered from pollution before the year 1975. The pollution is growing because there is an increase in the number of citizens, so the sewage waste increased. And our government is still creating fake projects in order to fix this problem, but instead it spreads the word that Lebanon is polluted. The problem of pollution is a major setback in our community. People think how can I dive, I will have fungus if I did. Same thing happened last year, and it affected all of the beaches in Lebanon they all witnessed a decrease between 40 and 60% in their sales, just because they said that the sea is polluted. The sales of the resorts that have pools increased, while the ones that only have beaches decreased. It is kind of a money war here in Lebanon, and the government in inciting this. This might be off topic but I want to state it, if you curse the president, you will be put in jail, but if you curse the sea, they will applaud you. I do not know which is logical, and in what kind of farm are we living.  Interviewer: So we can say that the media is our biggest problem It's not the media it's the government.  Interviewer: The media is delivering ideas.  The media is obligated to deliver the ideas. They need to earn their living Interviewer: So the government is on the same side as the media? It's not exactly like that. The government doesn't even know on which side it's on.  Interviewer: It is just delivering ideas through media. |

The government is not doing anything for the good of this country. So this is the first problem; pollution or maybe the advertisement of pollution. I can take you right now two kilometres deep in the sea, and the water is clean, you can even test it. I dive there every single day, yes we do have sewage waste in the sea, I see it, but in every country there's sewage waste. Hawaii has a bigger percentage of pollution, but its tourism ratings are still high, because they have a respectful government [emphasis on respectful]. Second, when people travel they look for three things, one: cheap communication, two: cheap accommodation, three: cheap transportation. Do we have those things? No, they don't exist. Accommodation is very expensive, so is food. Therefore, tourists don't come. Our communication services are horrible, and last our transportation doesn't even exist. We are not even trying to fix the small problems so that we can solve the bigger problems. The simplest thing is that the bus driver picking up tourists from the airport doesn't smoke in the bus while driving. When people come to Lebanon they love it, but they say that there is this and this and this so I won't come back. Third is that our locals are very poor. Checks out restaurants, only 11% maybe of the people that go to restaurants are of the rich, the rest is tourists. Last year they made a report on CNN concerning the waste crisis in Lebanon. What was the purpose behind that? It was like filming your wife in bed with another man and be talking about purity. Those are big issues that no one is trying to fix. Each year we have a setback. We are not talking about the economic state we have. Lebanon can be revived due to some touristic activities. Once I was having dinner with a man, a priest that has another job, he told me you think that Lebanon survives off of tourism? Lebanon survives off of weed and Palestinians. When those two are gone, Lebanon is gone. Nevertheless, if we fix the situation now, Lebaon can really survive off of Tourism. I get tons of emails from people who are asking me when they can come and dive, I tell them they can come, the next day they send me emails containing brochures that states that Lebanon is polluted.

**Interviewer:** The community, you told me that there are three factors. The problem is community

**Interviewer:** Right now, we are talking about oil drilling, what we can find. The community is a big problem. First, the people are the ones who are choosing this entity that is governing them. Second, we lack education, and I do not mean read and write kind of education, a cat can do that nowadays.

**Interviewer:** Do you think that education in this area is high?

No, nowhere in Lebanon is the education high. When a parliamentarian when driving throws a trash bag out of the window, which is lack of education. We can still see people that are below average, but still has this love for their country. No one has love towards his country. They have love towards their religion, environment, or the one representing him that is it. They do not care

for Lebanon. It is very sad.

|  | 2018 was a bad year in revenues, so was 2017. 2016 was a good year. The situation began to deteriorate in 2017, it was a bad year, 2018 was even worse, |
|--|---|
| B10.b. What were approximately the annual revenues vs. expenditure last year (2018)? (Note to interviewer: please ask for a range of the business turnover in USD) | and 2019 start off with a big question mark.  |
|  | The billing of 2018 was 150,000 USD. Our service is extremely small, and I am   |
|  | one of most billers in Lebanon. Other centers might bill 20,000 30,000 40,000   |
|  | 50,000, some people might hit 100,000. For me it was 150,000 but it used to be  |
|  | 300,000 USD.  |
|  | [laughing at the question] There are no conditions  |
|  | <b>Interviewer:</b> Are you this hopeless?  |
|  | I am not hopeless, I am realistic.  |
|  | <b>Interviewer:</b> Realistic there is no doubt, but don't you think that are some  |
|  | conditions that might develop your business?  |
|  | Petrol is a disaster for us, in my opinion  |
|  | <b>Interviewer:</b> Why do you say it is a disaster?  |
|  | Because money is the ultimate evil. They are all fighting to get money. They  |
|  | left the garbage for two years on the streets because they were fighting who  |
| <b>B11.</b> What are the conditions for  | should remove it. We got all sorts of diseases, got poisoned, and most of the   |
| business development in your   | waste was dumped at sea. So I don't think we will benefit from Petrol.  |
| community?   | Interviewer: What do expect to gain?  |
|  | Nothing at all.   |
|  | <b>Interviewer:</b> What do you expect to gain if those men were no longer in   |
|  | power? I just came up with that question.   |
|  | That is a great question. If we had a government similar to the Sweden  |
|  | government then that would be the greatest thing ever, or maybe the German  |
|  | government. First, you have a community that holds its government   |
|  | accountable for its actions. Men in power are slaves to community; they   |
|  | actually say that over there. Unfortunately, in Lebanon we are the slaves. It is  |
|  | like I marry you, and then make you my master. It just does not work this way.  |
|  | CLIENTELE AND SOCIO-ECONOMIC ASPECTS  |
|  |   |
| P12 Who are your clients?  | Not Asked   |
| B12. Who are your clients?   | Not Asked   |
|  |   |
|  | Yes. We do work both in winter and summer, but the big chunk of work starts   |
|  | from May until November.  |
| B13. Is your business seasonal? Please describe  | Interviewer: So in winter there is no diving  |
| ricase describe  | There is, but it is very minimal. It is maybe 30%. Some people are scared to  |
|  | dive in winter because the water is cold, and there will be storms etc  |
|  | Everything related to water activities. Such as kites, SUVs, boating, jet ski,  |
|  | fishing, and tanning. Tanning is a business itself. We also have restaurants,   |
| <b>B14.</b> What other types of businesses   | pubs.   |
| are available in this area? Specifically on the shore?   | <b>Interviewer:</b> If we are talking about this area   |
| on the shore:  | We have nothing. This area is filled with rocks and pollution. The water here is  |
|  | black. I was talking in general about the coast from here to Tripoli.   |

|   | <b>Interviewer:</b> If we want to talk about this area, is it considered Dbayeh or      |
|---|---|
|   | Zouk?   |
|   | Zouk Mosbeh   |
|   | Interviewer: Ok so let's talk about Zouk Mosbeh   |
|   | We have two or three ports. We have two fishermen ports. We have NCL, us                |
|   | XDC, and resorts. But we don't have anything on the beach                               |
|   | I think there is a deterioration in everything  |
|   | <b>Interviewer:</b> Do you think that there are no longer resources?                    |
|   | By resources, you mean income?  |
|   | <b>Interviewer:</b> No, I mean sea resources. Coastal resources such as sand,           |
|   | seashell, things that can be extracted from sea and used as resources                   |
|   | If we go back five or six years, somethings are no longer available. For                |
|   | example, we don't see Sea Urchin anymore [Toutya, a type of seafood].                   |
| <b>B15.</b> How would you describe the                          | Because we live in a very developed country, and its people are highly                  |
| current coastal resource conditions in your community?          | educated, so a man goes down with his family and collects all Sea Urchins just          |
| your community.   | to make 10,000 LBP, and they do not care if there was no more Sea Urchins for           |
|   | the next ten years. No one even hold them accountable. There are a lot of               |
|   | seashells that no longer exist, even some fish. They no longer exist because no         |
|   | one is taking responsibility, and no one is holding people accountable for their        |
|   | actions. At some point, I understand the people, because if no one is taking            |
|   | serious measures, then everyone will de as he pleases. No one abides by the             |
|   | law.  |
|   | Negatively, are all of the factors I already told you. Positively are also the same     |
|   | factors. If their change will not affect tourism, it will affect locals, university     |
| B16. What are the factors that                                  | students, people who are wealthy, because to tell you the truth our business is         |
| positively or negatively influence your business?               | not cheap. It is not extremely expensive, but it is not cheap. Not everyone can         |
|   | afford it. No one is willing to throw in 1,000 or 1,200 USD per year to buy gear        |
|   | and learn how to dive; they might rather using it for something else.                   |
|   | □ a. Extreme □ b. Very High □ c. High □ d. Moderate □ b. Low □ b.                       |
|   | None  |
|   | Can you define marine resources?  |
| <b>B17.</b> How much does your business                         | <b>Interviewer:</b> Marine resources are as I told you, sand seashell, things like that |
| relies on marine resources? (Note to                            | My business only relies on water. They do affect my business, because if those          |
| interviewer: please ask for the degree of reliance)             | things are not present, then people won't want to dive                                  |
| degree of renance)  | Interviewer: So it does affect  |
|   | Of course it does   |
|   | <b>Interviewer:</b> how much would you say it would affect it?                          |
|   | Extremely   |
|   | No, we only have Nahr El-Kalb   |
| B18.1. Are you located in a village                             | Interviewer: Does it contain cultural heritage?   |
| with cultural heritage? If so please describe it and provide an | Yes, and it is surrounded by waste, because the government is really involved           |
| approximate location?   | in this, and you see foreigners cleaning just so they can see this heritage. It is      |
|   | sad. You have the old bridges inside Nahr El-Kalb. That is it.                          |

| B18.2. Are there any touristic sites or nature reserves in the neighborhood? If yes, please describe them      | Not asked  |
|--|--|
| B19. How much your business relies on such sites? (Note to interviewer: please ask for the degree of reliance) | □ a. Extreme □ b. Very High □ c. High □ d. Moderate □ b. Low ☑ b.  None  |
| B20.1. Do you have adequate water supplies in this area?   | Yes  |
| B20.2. What about electricity and waste management services?   | Mainly I have everything. When it comes to waste management we have a problem with recycling  Interviewer: There are no recycling companies?  There are many, let us not name them. Two years ago, they started these recycling campaigns and got the garbage bags and cans. That was great. Ask them to come and take the garbage, they reply with no you have to pay us. So I need to pay so they take away the garbage. I do not understand why they are reusing the waste. People pay today and huge amounts of money just so they take the garbage. |
| B20.a. Are you satisfied with the infrastructure in this village?  | Salim: No, whatever you ask me the answer will be no Interviewer: I am specifically talking about the infrastructure of this village Salim: It is better than other villages, but it is not the best in the world. If we compare it between bad and worse, it is the bad not the worse.  |
| B20.b. How can the provision of infrastructure affect your business?   | It affects it highly. Traffic can affect the business. People think that, I need maybe an hour and a half to get there, I rather not go.   |
| B21.1. How do you find the condition of local roads?   | Great, best condition. I went to Sweden and I just spit on their roads because I missed the holes of the Lebanese roads, and the people that drive opposite to the route [said sarcastically]  |
| B21.2. Are there any public transport services?  | Yeah, we have Egyptians, Syrians and Lebanese, they all wear the same shirt, they are all stinky, they all curse, smoke, and race right in the middle of a highway [said sarcastically]  Interviewer: We are talking about public transport? Are they the ones that drive busses?  Yes.  |

| B22.1. How do you describe the safety and security conditions in this area?                                     | Compared to other areas, we live in heaven. In our resort if you place 1,000 dollars on the table, you will come back to see that it is 1,100 dollars. The area is safer than other areas, but still there are people who are willing to do everything to buy food in all areas.  |
|---|---|
| B22.2. Which parties play the major role(s) in this regard?   | Not that I care, but judging by the elections that happen, I say the Lebanese Forces, and the Free Patriotic Movement.  |
| B23.1. What are the main illnesses in the community?  | Greed, disrespect, oh those aren't illnesses? [said sarcastically]  Interviewer: Those can be psychological illnesses, but how about health illnesses  I don't we have major illnesses, we have things like allergies, because of the things we eat, breath, drink  |
| B23.2. How do you describe the healthcare facilities in this area (what are they and where are they?)?          | I honestly don't know, but we have the Red Cross, and other entities Interviewer: And do they come as soon as someone calls for help? Yes   |
| B23.3. Do they satisfy the community needs?   | Not asked   |
| B24. What are the forms of communication used by people in your community?                                      | □ a. Telephone □ b. Internet □ c. Mail Services □ d. Other <b>Not asked</b>   |
|   | ENVIRONMENT AND NATURAL RESOURCES   |
| B25.1. Are there any natural resources (both offshore and onshore) available in the neighborhood?               | <ul> <li>☑ Yes ☐ No</li> <li>We have fishermen that fish and sell them. For me the marine resources are leisure. Also the resources are decreasing</li> </ul>   |
| B25.2. If yes, who are the parties managing those natural resources? And who are the ones who make use of them? | Fishermen are the most ones that exploit these resources  Interviewer: Can you describe in details the process of diving, how many meters do you dive?  It depends on the level you've accomplished  Interviewer: And in your diving center  We have all levels. Under 40 meters is technical diving, above 40 meters is recreational diving  Interviewer: What is the distance that you go?  When diving, we go about four or five kilometers tops. It depends on the spots, and we don't need to go that deep, we need to stay near the shore |

| B26.a. Please describe briefly the climate in this area?   | Mainly we have four seasons. Yes, sometimes they can get mixed up, but we definitely have four seasons.  |
|--|--|
| B26.b. Please describe briefly the air quality in this area?   | Awful, we are near Zouk.   |
| B26.c. Please describe briefly the water quality in this area?   | The water is really good; we have a spring that comes straight through here. You are talking about drinkable water right?  Interviewer: Yes drinkable water. How about seawater?  Near the shore, the water is really at its best. The resorts still throw their sewage in the water. The down side also that we have here is that Nahr El-Kalb also merges with the sea, so all of the waste that the companies throw in the river goes to the sea.   |
| B26.d. Please describe briefly the Offshore Ecology and Geology in this area?  | No one knows anything about this, unless you dive and discover what's under the sea  Interviewer: Do people who come to experience diving have that knowledge?  Not really, no  Interviewer: So the education about this matter in this area specifically isn't high, so people who comes to dive just do it for fun  Yes just for fun. We have three types of people who come and do this activity.  We have the ones that come to take pictures and post them on Instagram; we have the ones that come under peer pressure so they come with someone, and last the people who are curious to know. The first two do not last, but the people who are curious always come back. We have this education/mentality that if you go diving you will die |
| B26.e. Please describe briefly the shoreside Ecology and Geology in this area?   |  |
| B26.f. Please describe briefly the Natural Resources in this area?   | They are decreasing and becoming extinct   |
| B27.1. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment in this area? | We have the factory in Zouk. The big problem in Zouk are the fuel tanks that come and empty their loads  Interviewer: Are there a lot of wastes in the area?  It depends on the air current. In Beirut there is more waste. Here it depends how the air is shifting waste.  In winter some [inaudible] happen. Every year I face a big damage, waves come crashing into the building. Each wave weighs more than a ton so its  |

|   | damages he property. We do not encounter floods, mainly just big waves. Other than that, we are all prepared for wind, rain or any other thing. |
|---|---|
| <b>B27.2.</b> If yes, how is your business impacted? Please describe? | Not asked   |

## TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE — STAKEHOLDERS — COMMERCIAL BUSINESS

| Location of Interview: (Village/Caza/Block Number):              | Anfeh – Block Four   | Date of interview :            | 23-05-19                 |
|--|--|--------------------------------|--------------------------|
| Name of Interviewee :  |  |                                |                          |
| Interviewee Gender :   | Male   |                                |                          |
| Interviewee Postion :  | Salt Miner   |                                |                          |
| Name of Interviewer :  | Wahib Izmiraghdi   |                                |                          |
| Notes  | Please introduce the oil drilling activities opportunity for questions and answers | using the BIDs and posters and | give the participants an |
| C. COMMERCIAL BUSINESSES (TRADERS & SERVICES – FORMAL /INFORMAL) |  |                                |                          |

| GENERAL INFORMATION   |  |  |
|---|--|--|
| B1.1. Are you from this village? How long have you been residing here?      | No, I'm not from this village. I am Syrian, but I've been here since a long time ago. I'm in charge of salterns and I work in salt mining and the olive industry.  |  |
| B1.2. How long have you been residing here?                                 | I've been here for 50 years.   |  |
| B2. How big is the community/population size?                               | I don't know the population size here. This matter is not my business.   |  |
| B3. Please describe briefly your economic activity. What do you exactly do? | Firstly, I produce salt, and for example traders buy it and sell it in Beirut. This salt has different types [he names some types such as Fleur de Sel, clean salt] and each has its price. Secondly, this is the engine from the sea and we fill the containers and settle the water in them. This is what we do.   |  |
| B4. Is the business small or medium size?                                   | Medium size. There is this saltner, moulding the containers, patching For example, I'm in charge of this saltner. I bring workers and ask them to do this and that such as mixing it, filling it. This is what I'm in charge of. The income isn't mine. It's like you have this saltner and you put me in charge of it. You supervise the work, what I need and want from the sale of the saltner, and you provide me with it. |  |
| B5. How long has your business been operating?                              | Interviewer: How long have you been working here? For a month. Interviewer: Have you worked in another saltner before? Yes, I left last year. I worked in the saltner at the marina. Before that, I worked in the saltners of the monastery. Interviewer: So your work in saltners has been [He was interrupted] Yes, I've been working in saltners for many years.  |  |
| <b>B6.</b> Is it the main source of income in your household?               | Yes, of course. What I receive, I send it to my family. Thank God, we have a decent living.  |  |
| B7. How many dependents are there in your household?                        | I have eight children. Four girls and four boys. Interviewer: Their ages are above or less than 20? They're above 20. Interviewer: All of them? Yes, I only have one boy who's 17 or 18 years old.   |  |
| B8.1. Do you have employees?  | ☐ Yes  |  |

| B8.2. If yes, how many and please probe into Gender, Nationality, and Age Groups.  |  |  |
|--|--|--|
| B9. In what roles are women involved?  | Women don't have a particular role here because they have nothing to do with this field.   |  |
| B10. How would you evaluate the performance (growth/decline) of your business for the past three years?  | It declined to a certain level.  |  |
| B10.a. What factors have influenced this growth/decline?   | There was no work in the country anymore. For example, those who used to work in production would find that work had stopped, and when work stops, the worker has to stop, right?  Interviewer: In your opinion, what factors can have a positive influence? What should happen for this to grow and have positive effects?  This happens when the situation of the country is good and stable, and there are no problems. Nowadays, you can't talk to anybody. The biggest example is when people are swimming. Yesterday, there were youths swimming and they had a dog with them. I looked as I was working there and saw a boy with the dog jumping in the container. He was playing with the dog. I told him: please can't you see that the saltner is newly moulded? In addition, it will produce salt that people will eat. That's a shame. This domestic salt is edible; unlike the Egyptian salt [what followed wasn't clear]. Fleur de Sel, for example, is demanded. They come from Beirut and Jounieh because they know that Anfeh in the North is known for its salt. |  |
| B10.b. What were approximately the annual revenues vs. expenditure last year (2018)? (Note to interviewer: please ask for a range of the business turnover in USD) | We didn't have revenues. Revenues are very small every year.  Interviewer: Revenues are declining?  They are declining. Every year, work is regressing because the situation of the country is not so good.  Interviewer: Can you give me a number in USD on your expenditures and revenues? Did something cost more than something else? Your income was maybe a bit [He was interrupted].  I've spent a lot on this saltner. I mean I have completely [not clear] and moulded it.  Interviewer: You've spent a lot of money on it?  I've spent a lot of money on it. I mean if I'm going to calculate, I'll need a pen and a notebook. It'll need a lot from the owner of the saltner and me. I've already spent around 500 L.L. on workers' wages, and that's besides my work. I've spent a lot on my work, and the worker now doesn't please you like old workers such as us did.  |  |
| B11. What are the conditions for business development in your community?   | The conditions here are that the situation should be good. The sale of salt here is poor because the Egyptian salt ended it. One Egyptian ton costs here, for example, 30 USD. They go and sell the 30 USD salt for 50 USD. Here, the costs of salt are 80 USD.  |  |
| CLIENTELE AND SOCIO-ECONOMIC ASPECTS   |  |  |

| B12. Who are your clients?  | Interviewer: Probing into question I work for someone called Aleco. He put me in charge of this saltern, he comes back to me and responds to my demands, for example if I want [not clear] or sand he brings it.   |
|---|--|
| B13. Is your business seasonal?<br>Please describe  | Right now, it's seasonal. My job, as to me, is that I bring workers every month, until the saltern is ready, to work on this saltern, and I receive in half, meaning that half the salt is mine and the other half is the owner's.   |
| <b>B14.</b> What other types of businesses are available in this area? Specifically on the shore?   | The businesses that are available in this area are put on halt. There are no businesses.  Interviewer: What businesses are available here [He was interrupted].  Everything related to salterns. All people used to live by salterns.  Interviewer: Factories were also built.  Yes, factories were built and salt was imported, people couldn't live by salt anymore. They left the saltern of the monastery, where the restaurant Gergi El Dayaa is located [incomprehensible] was full of salt, but they all left it.  Interviewer: So, the businesses that were available on the shore line were all related to salt?  A lot of workers used to work in this field. People lived by it.  |
| They visit for tourism the fortress there. [The interviewer first said to instead of coastal leading to this answer].  Interviewer: Are there coastal resources?  There are no resources. What resources? There are none. |  |
| B16. What are the factors that positively or negatively influence your business?  | Interviewer: Is there any positive influence? There is none. Nothing influences my work. The sale of salt is poor as I've said. They come and buy this salt for 70 USD, 70 or 80 USD don't work. You either have to sell it with a loss, I once sold it with a loss to Haykal Family, I swear they owe me 325,000 L.L. I told them to give back this amount; they said they didn't have it. Come on, give it to me I have a family, I need to send them money and to my kids, too. I work in a saltern, I also need to pay the workers, I swear I borrowed money to pay them. And now, I am fixing some containers and getting tired because there are no workers. You have to get one and pay him in full, he wants the same wage as everyone, and for example, if he wants to take 30,000 L.L. or 35,000 L.L., he won't work for 20,000 L.L. What is in it for me, then? I swear, they made this kneading, and as I cast concrete, I told them to make a kneading here. They made one, and I'm not stupid, I mean if I see them or not I won't know how was the work? I looked at them, and they were doing this with the shovel [He showed the interviewer how]. They were having fun, and passing hours and days. I stopped my work and told them good job boys. One thanked me, so I said okay and I asked him why they were kneading like that, he asked how, so I told him to give me the shovel, and I am 50-60 years old and my foot hurts, then I took the kneading and turned it twice. I finished it in five minutes and asked them whether they didn't fear God and didn't take their money legitimately. He said they were working so I said I saw how they had been working. They have no conscience or sentiment. What is the job of a worker? His conscience. |

| B17. How much does your business relies on marine resources? (Note to interviewer: please ask for the degree of reliance) | □ a. Extreme □ b. Very High □ c. High □ d. Moderate ☑ b. Low □ b. None  It has become very low.  |  |
|---|--|--|
| B18.1. Are you located in a village with cultural heritage? If so please describe it and provide an approximate location? | I am always here. I've been here for eight years straight without going back to Syria. I've worked everywhere. I went to Amin Issa Family, salt traders who had salterns which I was in charge of. I also went to Esper Family if you've heard of them. I came here and went to [name not clear] Khoury, that saltern, and it's been 20 years. This is the first time I settle down.  Interviewer: Does this region have any cultural heritage?  It doesn't. |  |
| <b>B18.2.</b> Are there any touristic sites or nature reserves in the neighborhood? If yes, please describe them          | There are no touristic sites, or nature reserves because it's an ownership here. They came yesterday and did land surveying.  Interviewer: There are no nature reserves?  No.  |  |
| B19. How much your business relies on such sites? (Note to interviewer: please ask for the degree of reliance)            | □ a. Extreme □ b. Very High ☑ c. High □ d. Moderate □ b. Low □ b. None  My reliance is on saltworks here. Only here.  Interviewer: This means that the degree of reliance is high in this area?  Yes. If I find an outside job after I finish and when there is no more work left, I will do it. If not, I will retire.  |  |
| <b>B20.1.</b> Do you have adequate water supplies in this area?   | Yes. There is water, there is everything, supplies.  |  |
| <b>B20.2.</b> What about electricity and waste management services?   | There is electricity. Look, this is the electricity meter. There is also sea water, and this is the engine. Everything is ready 24 hours a day.  |  |
| B20.a. Are you satisfied with the infrastructure in this village?   | The infrastructure is good, but that company there sometimes causes dust.  Interviewer: The company affects your work?  It affects the salt because it touches it. The salt must be calcinated, and you want to extract clean salt. If the company removes this filter, dust moves according to the wind.  |  |
| <b>B20.b.</b> How can the provision of infrastructure affect your business?   | Interviewer: If we want to talk about the infrastructure. You've said that companies affect your business.  Yes, all the companies in Chekka affect it.  Interviewer: Is there anything other than companies?  There is nothing else other than Hawa Chicken.  Interviewer: Hawa Chicken, the factory?  Yes, the factory here, in terms of smell and others.   |  |
| B21.1. How do you find the condition of local roads?  | All roads are good, not bad.   |  |

| <b>B21.2.</b> Are there any public transport services?   | No.   |  |
|--|---|--|
| <b>B22.1.</b> How do you describe the safety and security conditions in this area?                     | They're good.   |  |
| B22.2. Which parties play the major role(s) in this regard?  | You can't talk to any of the parties here. For example, you're coming here from Tripoli for fishing, and I don't know what party you follow. You can't talk. <b>Interviewer:</b> Is there a dominant party here? No.  |  |
| B23.1. What are the main illnesses in the community?   | Yesterday, there was a manifestation for cancer spreading because of the soil company.  |  |
| B23.2. How do you describe the healthcare facilities in this area (what are they and where are they?)? | Healthcare facilities are available to a certain level.  Interviewer: There are no healthcare facilities?  No, not so much, and everything is expensive. The poor dies and nobody will look at him. My foot hurts, my knee, and I've spent 500 USD on it and it was as if I took that money and put it in the sea.                                    |  |
| B23.3. Do they satisfy the community needs?  | Not asked   |  |
| B24. What are the forms of communication used by people in your community?                             |   |  |
|  | ENVIRONMENT AND NATURAL RESOURCES   |  |
| B25.1. Are there any natural resources (both offshore and onshore) available in the neighborhood?      | At first, answered no then changed to yes].  There are no offshore resources.  Interviewer: Such as fish.  Fisheries were stopped; I don't know why, the State [he was interrupted by a phone call].  Interviewer: So as natural resources, the sea here gives fish?  Yes, it does.  Interviewer: Onshore resources, there are none?  There are none. |  |

| B25.2. If yes, who are the parties managing those natural resources? And who are the ones who make use of them?  | You should ask the municipality. Interviewer: Is there a Fishermen's Syndicate? Yes, there is because there are fishermen next to the marina. It is full with fishermen. Interviewer: So fishermen benefit from it? Yes, they do.   |  |
|--|---|--|
| B26.a. Please describe briefly the climate in this area?   | The climate is good.  Interviewer: Are there multiple seasons? Four seasons, like the climate of Lebanon.  Yes, the climate of Lebanon.   |  |
| B26.b. Please describe briefly the air quality in this area?   | Interviewer: You've said that the air is affected by companies. Yes, by companies.  |  |
| B26.c. Please describe briefly the water quality in this area?   | Interviewer: Sea water quality. The water is clean.   |  |
| B26.d. Please describe briefly the Offshore Ecology and Geology in this area?  | Not asked   |  |
| B26.e. Please describe briefly the shoreside Ecology and Geology in this area?   | Not asked   |  |
| B26.f. Please describe briefly the Natural Resources in this area?   | Interviewer: There are only fish as natural resources? There are only fish.   |  |
| B27.1. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment in this area? | Interviewer: Is there anything that may affect the environment here such as things that are done. For example, what are these fans for?  These fans are like the ones made in the past. Weren't there fans that were used to blow air? It's like a heritage. They did them. |  |
| B27.2. If yes, how is your business impacted? Please describe?   |   |  |
| ADDITIONAL NOTES   |   |  |

| • | Stakeholder was cooperative at first and answered all questions. However, by the end of the interview, a after receiving a call from the owner of the saltner who asked him to send the interviewer to the municipal and to stop answering the questions, he became slightly uncooperative, and his answers became brief. |
|---|---|
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |

## TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE — STAKEHOLDERS — COMMERCIAL BUSINESS

| Location of Interview: (Village/Caza/Block Number):                         | Kafaraabida, Block 4  | Date of interview:   | Wednesday<br>29/05/2019  |
|---|---|--|--|
| Name of Interviewee:  |   | ·  |  |
| Interviewee Gender:   | Male  |  |  |
| Interviewee Postion:  | Head of Coop  |  |  |
| Name of Interviewer:  | Wahib   |  |  |
| Notes   | Please introduce the oil drilling opportunity for questions and   | a activities using the BIDs and posters and<br>answers   | d give the participants an   |
| A. COMME  |   | S & SERVICES - FORMAL /INFO  | RMAL)  |
|   | GENERAL IN  | IFORMATION   |  |
| B1.1. Are you from this village? How long have you been residing here?      | We've been living here sin  | nce hundreds of years. We don  | 't buy but we inherit.   |
| B1.2. How long have you been residing here?                                 |   |  |  |
| B2. How big is the community/population size?                               | Approximately 1350 individual contact the concerned part  | viduals. I can't give you accur<br>y.  | ate number you should  |
| B3. Please describe briefly your economic activity. What do you exactly do? | and my father worked with<br>educated while my father<br>work he had six employeed<br>I knew how to buy and sell<br>I got married and I have a<br>educated because I use to | usiness my grandfather was own him. He got married and I'm wasn't but he was really smarts.  I and I got my education in (Tobig family: four boys and two work in the sea, in addition to time work as main source of ir | an only child but I get and know how to  S electronic).  o girls they all got a side job of course but |
| B4. Is the business small or medium size?                                   | You can consider it as sma  | all business so basically I'm a  | fisherman.   |
| B5. How long has your business been operating?                              | I was 8 years-old, we used  | I to have a small house  |  |

| <b>B6.</b> Is it the main source of income in your household?  | Yes, it's considered our main source of income.  I also work in the ministry of communication from the day I graduated till today, it's an additional income to the family because as you know our work is seasonal. This year it was a very tough year (weather condition) and we also have a small port. However, the port needs support and help.   |  |
|--|--|--|
| B7. How many dependents are there in your household?   | They are all married. They all work in the army and security forces. And I have my daughter, a doctor in petroleum engineer.   |  |
| B8.1. Do you have employees?   | □√Yes □ No   |  |
| B8.2. If yes, how many and please probe into Gender, Nationality, and Age Groups.  | Only one employee, Syrian. He's been working with me for five years.   |  |
| B9. In what roles are women involved?  | My wife is educated but when my parents died she insisted on keeping the business alive. She is responsible for cooking (frying and grilling)  |  |
| B10. How would you evaluate the performance (growth/decline) of your business for the past three years?  | Lebanon is volatile. There's good and bad working days. As you know the dead fish lifecycle is limited so sometimes if I found that I'm in a good financial situation instead of sealing the fishes I give it to people for nominal price.  Let people eat and benefit rather than throwing the fish away.  There's a decline in the performance because people can't catch up with the life requirements. |  |
| B10.a. What factors have influenced this growth/decline?   | This decline is the responsibility of all the Lebanese rulers.  My kids are employed in the government because I couldn't find better job opportunity for them (in companies)  |  |
| B10.b. What were approximately the annual revenues vs. expenditure last year (2018)? (Note to interviewer: please ask for a range of the business turnover in USD) | Before we used to have some savings but today the expenses are way more than the revenues. You have to pay for the electricity, generator, and water.  |  |
| B11. What are the conditions for business development in your community?   | We need more job opportunities and care for each other.  |  |
| CLIENTELE AND SOCIO-ECONOMIC ASPECTS   |  |  |

| B12. Who are your clients?  | I don't have fixed costumers. It depends on who wants to buy from me.   |
|---|---|
| <b>B13.</b> Is your business seasonal? Please describe  | I don't depend on seasons. I work continuously.  The continuality is the key, people know me for being a fisherman I can't go to another business however it is where I find myself.  |
| <b>B14.</b> What other types of businesses are available in this area? Specifically on the shore?                         | Fishing is the main activity but even some of them are taking it as a hobby. However, you can find hotels by the shore.   |
| B15. How would you describe the current coastal resource conditions in your community?                                    | Only fishes, Tutia is no longer available.  We used to have sponge back in time however, we used to collect, clean and sell them to a man coming from Cyprus.  The decorators used to search for these sponge because its highly used in their job  |
| B16. What are the factors that positively or negatively influence your business?  | What affects the business is the situation in general, back in time we faced many wars that affected our business and no one cared about its impact nor helped us.  The reduction of dynamite usage increased the fish categories.  A Turkish ship was loaded with corn and seed of cotton sank, and the product loaded are considered as attraction to the fish which increased the fish quantity especially in Tripoli and we get affected positively a little bit on us. |
| B17. How much does your business relies on marine resources? (Note to interviewer: please ask for the degree of reliance) | □ a. Extreme □ b. Very High □√c. High □ d. Moderate □ b. Low □ b. None  |
| B18.1. Are you located in a village with cultural heritage? If so please describe it and provide an approximate location? | The answer is out of topic  |
| B18.2. Are there any touristic sites or nature reserves in the neighborhood? If yes, please describe them                 | Yes, near villa Wardyeh there's a mountain that a Jordanian bought in order to make a new business Stakeholder, with the help of an AEU company payed to the government in order to create bungalows (rooms in the sea similar to the Maldives). No we don't have nature reserves but we are planning to. There is one in Anfeh.  |
| <b>B19</b> . How much your business relies on such sites? (Note to interviewer: please ask for the degree of reliance)    | □ a. Extreme $□$ b. Very High $□$ c. High $□$ d. Moderate $□$ b. Low $□ √$ b. None  |

| <b>B20.1.</b> Do you have adequate water supplies in this area?  | They did new water network supply and its working fine now.   |
|--|---|
| B20.2. What about electricity and waste management services?   | The municipality gathered the waste and through it in a valley in Eddeh.  |
| B20.a. Are you satisfied with the infrastructure in this village?                                      | They did infrastructure near our home, we requested the concerned party to do once the infrastructure work because our buildings are old.  Instead they come many times to do the same work and it's affecting our buildings structures |
| B20.b. How can the provision of infrastructure affect your business?                                   | It affects in one thing, through the infrastructure network supply.   |
| <b>B21.1.</b> How do you find the condition of local roads?  | The local roads are bad, people used to come to the clubs near us and drive in a very bad manner affecting us since our homes are old and directly on the road.   |
| <b>B21.2.</b> Are there any public transport services?   | Yes, taxis are available.   |
| B22.1. How do you describe the safety and security conditions in this area?                            | There's no safety everyone is depending on himself. People know us and that my children are in the army.  |
| B22.2. Which parties play the major role(s) in this regard?  | The parties care only about election. Once elected they forget about us, no one is serving us except Jebran Bassil  |
| B23.1. What are the main illnesses in the community?   | We don't have illness we only need to be more careful about the cleanliness.  |
| B23.2. How do you describe the healthcare facilities in this area (what are they and where are they?)? | We don't have any facilities, only in Batroun however it's for both the army and civil.   |

| B23.3. Do they satisfy the community needs?   | [Question not asked]   |
|---|--|
| B24. What are the forms of communication used by people in your community?                                      | □√a. Telephone □ b. Internet □ c. Mail Services □ d. Other   |
| EN  | VIRONMENT AND NATURAL RESOURCES  |
| B25.1. Are there any natural resources (both offshore and onshore) available in the neighborhood?               | □ Yes □√No   |
| B25.2. If yes, who are the parties managing those natural resources? And who are the ones who make use of them? | You can't depend on the fishermen to manage the resources because they don't have time.  |
| B26.a. Please describe briefly the climate in this area?  | The climate is moderator and good as long as we keep the atmosphere clean.   |
| B26.b. Please describe briefly the air quality in this area?  | The air quality is good but it gets affected from the pollution that covers Lebanon in general.  (the fog is coming from the chemical factory near us, and once the ministry of health contact them for filter maintenance the fog disappears) |
| B26.c. Please describe briefly the water quality in this area?  | I don't know about this topic  |
| B26.d. Please describe briefly the Offshore Ecology and Geology in this area?                                   | We have clean rock and sand but the sand in this area is affected by the chemical industry because every few minutes through it in the sea and even it affect the fish.  |
| B26.e. Please describe briefly the shoreside Ecology and Geology in this area?                                  | I have a small land but today it doesn't produce almonds anymore. It produces olives and figs.   |
| B26.f. Please describe briefly the Natural Resources in this area?  | No, not really.  |

| _  | □ Yes □√No   |
|--|--|
| B27.1. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment in this area? | (only the chemical factory already stated above)  (according to some studies the sea level will increase due to the melting of pols) |
| B27.2. If yes, how is your business impacted? Please describe?   |  |

|   | E&P LIBAN OFFSHORE DRILLING, LEB<br>ERVIEW GUIDE – STAKEHOLDERS – CO   |                            |
|---|--|----------------------------|
| Location of Interview: (Village/Caza/Block Number):                           | Date of int  | erview :                   |
| Name of Interviewee:  |  |                            |
| Interviewee Gender :  |  |                            |
| Interviewee Postion :   |  |                            |
| Name of Interviewer :   |  |                            |
| Notes   | Please introduce the oil drilling activities using the BIDs and posters and give the participants an opportunity for questions and answers |                            |
| D. COMMERCIAI   | L BUSINESSES (TRADERS & SERVICES – FO  | RMAL /INFORMAL)            |
| GENERAL INFORMATION   |  |                            |
| <b>B1.1.</b> Are you from this village? How long have you been residing here? | I am the head of the fishermen Coop in Dbayeh.   |                            |
| B1.2. How long have you been residing here?                                   | I have been living here since I was born.  |                            |
| B2. How big is the community/population size?                                 | I have no idea about the population in Dbayeh (70 according to the mayor).   | ,000 or 80,000 inhabitants |
|   | -Interviewer: Do you have any idea about the population size in Lebanon?   |                            |

|   | Approximately 4,000,000 inhabitant?  |
|---|--|
| B3. Please describe briefly your economic activity. What do you exactly do?       | I manage a company that rents yachts, and I own a small club where I teach people fishing. In addition, I manage a Lebanese restaurant related to the COOP where we sell the fishermen's fish (as well as fish from various regions in Lebanon) since we don't do auctions here. Moreover, we rent private and commercial boats. |
| <b>B4.</b> Is the business small or medium size?                                  | I think medium size businesses.  |
| <b>B5.</b> How long has your business been operating?                             | The fishermen COOP was inaugurated in 1993. I have been at the head of the COOP since 2013. I started "Dbayeh Fishing Club" in 1996 and "Dbayeh Sea Club" in 2015.   |
| <b>B6.</b> Is it the main source of income in your household?                     | Yes, sure.   |
| B7. How many dependents are there in your household?                              | My son only; he is 18 years old approximately.  -Interviewer: How many dependents are there in your household?  My wife and my son only. I have as well another son; he is around eight years old.   |
| B8.1. Do you have employees?  | ⊠ Yes □ No   |
|   | I consider all the fishermen as employees since they provide fish to the restaurant and to the fishery located in the COOP.  |
| B8.2. If yes, how many and please probe into Gender, Nationality, and Age Groups. | -Interviewer: How many fishermen work in the COOP?  50 to 60 full-time fishermen, 70 seasonal fishermen and the rest are amateurs (i.e. they mainly sell fish).  |
|   | -Interviewer: What is their age range?   |

|   | Around 35 years old and above.  |
|---|---|
|   | -Interviewer: Are they Lebanese?  |
|   | Mainly Lebanese, few Palestinians because there is a camp near Dbayeh, and very few Syrians (i.e. around one or two if any).  |
|   | -Interviewer: What about your private businesses.   |
|   | We have three Indian sailors and two Lebanese captains that work on the boats (whether for fishing or tourism purposes). And, my partner is the captain of our main boat.   |
|   | -Interviewer: What is their age range?  |
|   | Between 25 and 45 years old.  |
|   | My wife helps me sometimes in the restaurant. Fishing is mainly for men. In addition, we may hire seasonally a woman as a bartender or so.  |
| <b>B9.</b> In what roles are women involved?  | -Interviewer: Do women fish?  I don't think there are more than one or two women in Lebanon who work in fishing. It is a hard job; it is not womanly.   |
| B10. How would you evaluate the performance (growth/decline) of your business for the past three years?                     | My private job is doing great, and the COOP improved approximately 400 or 500 percent since 2013 (based on everyone's praise).  |
| B10.a. What factors have influenced this growth/decline?  | COOPs should be supported by governments in order to improve its members' quality of life. Unfortunately, we don't receive governmental support; therefore we collect donations to fund this institute. I would like to note that we pay on infrastructure ventures, and we are not allowed to ask for compensations even after receiving approval (i.e. thousands of dollars are being paid). We are using this money to improve the Mina rather than pay back to the fishermen. |
| B10.b. What were approximately the annual revenues vs. expenditure last year (2018)? (Note to interviewer: please ask for a | The season was really bad last year. Everyone who works in the sea knows this fact. The COOP is doing well in general; however we are broken now since we started a very big project. These projects were supposed to be financed by the government. The COOP's income is around 80,000 USD per year, and the current project will cost us around 250,000 USD. My private businesses turnover   |

| range of the business<br>turnover in USD)   | is around 135,000 USD per year. However, we didn't reach this amount last year.   |
|---|---|
| B11. What are the conditions for business development in your community?  | I think expenses and deals should be organized at all society levels. A small country like Lebanon with a limited number of inhabitants could prosper. We hope that it will improve with time.    |
| CI  | LIENTELE AND SOCIO-ECONOMIC ASPECTS   |
| B12. Who are your clients?  | My clients are young in general (i.e. between 17 and 45 years old). However, there is no specific age range in the COOP and restaurant.   |
| B13. Is your business seasonal? Please describe   | The restaurant and the COOP' work is not seasonal although few months could be better than the others. However, my private businesses are purely seasonal.  |
| <b>B14.</b> What other types of businesses are available in this area? Specifically on the shore?                                     | Fishing, maritime tourism, and touristic projects (hotels and so on).   |
|   | Very good if organized.   |
| B15. How would you describe the current coastal resource conditions in your community?  | -Interviewer: However, what do you think about it now? Some types of coastal resources are already instinct. We provide the Lebanese market with approximately 10 percent of its fish production. |
| <b>B16.</b> What are the factors that positively or negatively influence your business?   | Weather, political situation and tourism at both levels (i.e. private businesses and COOP).   |
| B17. How much does your<br>business relies on marine<br>resources? (Note to<br>interviewer: please ask for<br>the degree of reliance) | □ a. Extreme (at the COOP level) □ b. Very High □ c. High ☑ (at the private businesses level) d. Moderate □ b. Low □ b. None  |
| B18.1. Are you located in a village with cultural heritage? If so please describe it and provide an approximate location?             | Yes, sure, "Nahr Al Kalb" monuments.  |

| B18.2. Are there any touristic sites or nature reserves in the neighborhood? If yes, please describe them                  | No.   |
|--|---|
| B19. How much your<br>business relies on such sites?<br>(Note to interviewer: please<br>ask for the degree of<br>reliance) | □ a. Extreme □ b. Very High □ c. High □ d. Moderate □ b. Low ⋈ b. None  |
| <b>B20.1.</b> Do you have adequate water supplies in this area?  | Kind of, we have water here. We buy water from time to time.  |
| B20.2. What about electricity and waste management services?   | The "Daoura landfill" is near; however they were able to control the situation. "Electricity of Lebanon" is near as well which leads to chemicals' leakage in addition to other factories.  -Interviewer: Are you able to manage waste?  We have waste containers nothing else. |
| <b>B20.a.</b> Are you satisfied with the infrastructure in this village?   | Nobody is satisfied with the infrastructure here in Lebanon. It needs improvement for sure.   |
| B20.b. How can the provision of infrastructure affect your business?   | We have spoken already about water and electricity.   |
| <b>B21.1.</b> How do you find the condition of local roads?  | Dbayeh is well known for its crowded roads.   |
| <b>B21.2.</b> Are there any public transport services?   | Dbayeh is well known for its crowded roads.   |
| B22.1. How do you describe<br>the safety and security<br>conditions in this area?  | Very safe.  |

| <b>B22.2.</b> Which parties play the major role(s) in this regard?  | Christian political parties.  |  |
|---|---|--|
| <b>B23.1.</b> What are the main illnesses in the community?   | I don't think we have many illnesses here in the region. Maybe hunger and garbage are spread in remote areas.                       |  |
| B23.2. How do you describe<br>the healthcare facilities in<br>this area (what are they and<br>where are they?)? | Healthcare is non-existent here (zero).   |  |
| <b>B23.3.</b> Do they satisfy the community needs?  | Only if they have money; however we have the best medical services.   |  |
| <b>B24.</b> What are the forms of communication used by people in your community?                               | □ a. Telephone    □ b. Internet    □ c. Mail Services    □ d. Other   |  |
| ENVIRONMENT AND NATURAL RESOURCES   |   |  |
| <b>B25.1.</b> Are there any natural resources (both offshore and onshore) available in the neighborhood?        | ⊠ Yes □ No  |  |
| B25.2. If yes, who are the parties managing those natural resources? And who are the ones who make use of them? | Maritime resources only.  |  |
| <b>B26.a.</b> Please describe briefly the climate in this area?   | I enjoy it, a bit humid.  |  |
| <b>B26.b.</b> Please describe briefly the air quality in this area?   | The pollution level is mainly low in Dbayeh. The air flow is western and southwestern; it could be northern and eastern mid-season. |  |

| <b>B26.c.</b> Please describe briefly the water quality in this area?  | It is very good compared to other regions since the Lebanese water establishment is located in Dbayeh.  |
|--|---|
| <b>B26.d.</b> Please describe briefly the Offshore Ecology and Geology in this area?   | The offshore geology is amazing due to the maritime life. However, the offshore ecology is not good at all. I wish someone could help in this matter.   |
| B26.e. Please describe briefly the shoreside Ecology and Geology in this area?   | The sea coalesces with the mountains here. The shoreside ecology is still acceptable as opposed to other regions.   |
| <b>B26.f.</b> Please describe briefly the Natural Resources in this area?  | Non-existent. Only fish.  |
| B27.1. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment in this area? | ☑ Yes □ No  I doubt that factories are affecting the environment in Dbayeh.   |
| B27.2. If yes, how is your business impacted? Please describe?   | I don't know what to say. I heard that oil drilling will surely have a negative impact on the shoreside geology.  -Interviewer: However studies didn't validate it yet.  This is what I have heard, for that reason I can't answer your question. |

| TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE – STAKEHOLDERS – COMMERCIAL BUSINESS |  |                     |  |
|---|--|---------------------|--|
| Location of Interview: (Village/Caza/Block Number):   | Tripoli  | Date of interview : |  |
| Name of Interviewee :   |  |                     |  |
| Interviewee Gender :  | Male   |                     |  |
| Interviewee Postion :   | Former Captain, Current Restaurant Owner   |                     |  |
| Name of Interviewer :   | Wahib  |                     |  |
| Notes   | Please introduce the oil drilling activities using the BIDs and posters and give the participants an opportunity for questions and answers |                     |  |
| E. COMMERCIAL BUSINESSES (TRADERS & SERVICES – FORMAL /INFORMAL)  |  |                     |  |
| GENERAL INFORMATION   |  |                     |  |

| B1.1. Are you from this village?  | Yes  |  |
|---|--|--|
| B1.2. How long have you been residing here?                                       | Since birth. But I go away on business, but it usually doesn't last more than a couple of months.  |  |
| B2. How big is the community/population size?                                     | Approximately 160,000 people   |  |
| B3. Please describe briefly your economic activity. What do you exactly do?       | I own a seafood restaurant. We count on both tourism and fishing. We aim to provide to our customers the best products. People, tourists or citizens, come especially to eat healthy seafood, prepared deliciously. This is my field of work at the moment. I also fish. I sometimes dive and catch fish to support my work [the restaurant] or I sometimes sell fish, or I buy them If I need to. |  |
| <b>B4.</b> Is the business small or medium size?                                  | It is a small business. We do have the potential to grow, but the current circumstances of Tripoli, which is classified as the poorer town on the coast, do not allow any growth in business   |  |
| B5. How long has your business been operating?                                    | Since 1997   |  |
| B6. Is it the main source of income in your household?                            | Yes, the only income   |  |
| B7. How many dependents are there in your household?                              | Six  |  |
| B8.1. Do you have employees?  |  |  |
| B8.2. If yes, how many and please probe into Gender, Nationality, and Age Groups. | I have three employees, my son, and my wife help me as well. Two of the employees are Lebanese, one is Syrian. They are around 23 or 24 years old, and me and my wife are above the age of 40.   |  |

| B9. In what roles are women involved?  | My wife is my right hand in the business. She cooks the food, she sometimes cleans the seashells I bring in. we help each other out. She is my partner after all.  |
|--|--|
| B10. How would you evaluate the performance (growth/decline) of your business for the past three years?  | The foreigners in this town, UN workers, IRC workers, tell each other about my business, that this is a clean seafood restaurant. Doctors show up to eat because they know that the fish is fresh. And my background as a captain has helped know how to be diverse in my selection of food. Thanks to the lord, my work is going pretty good, stable. It is not falling back, but it is not witnessing a tremendous growth.   |
| B10.a. What factors have influenced this growth/decline?   | First of all, the municipality does not look out after the heritage sites. In the old market, the cars roam free. If they could work on that area, the entire country would get better. They would encourage people who have business ideas to make it a reality. There is no support for business owners. We have a lot of potential in Tripoli. For example we have the island reserve; they close it for nine months a year, and then open it in the time where it should be closed, June July and August, because turtles lay their eggs in that season. So when people come in and walk all over the place that seems to be impossible. If only this changes, then we would be living in peace. |
| B10.b. What were approximately the annual revenues vs. expenditure last year (2018)? (Note to interviewer: please ask for a range of the business turnover in USD) | The revenues I get from this business are enough for me to live a decent life, my normal life. I can cover the expenses of my car, motorcycle, boat, my family, my children's school tuition. We are satisfied. We can even save money for the rainy days. I have a monthly profit worth 3,000 or 4,000 USD. By the end of the year you might still have maybe a 1,000 USD or sometimes nothing at all.  |
| B11. What are the conditions for business development in your community?   | The simplest thing as I said before is that the municipality lets people run their business in a smooth matter. If everyone was unemployed, then no one would want to come over and spend money on food. And right now we count on foreigner more than citizens  |
| CLIENTELE AND SOCIO-ECONOMIC ASPECTS   |  |
| B12. Who are your clients?   | Foreign workers, tourists, some university professors, doctors, mainly people who are financially stable. We don't see a family going in to have lunch for instance like we used to.   |
| B13. Is your business seasonal?<br>Please describe   | It is year round. Sometimes it falls back a bit in summer, but mainly because people go to the beach, or the mountains. But at the same time, your sales might increase because of people who were on the beach. There is always a flow to the work.   |
| B14. What other types of businesses are available in this area? Specifically on the shore?   | Since Mina is a place that is surrounded by water. But they ruined our shore when they build a Corniche that ruined the environmental façade of the area, it ruined the beautiful view. So the least that they can do is let the people benefit from this Corniche and use it like what they would do in any other country. They should let people do whatever business they want, of course in a technical  |

| B15. How would you describe the current coastal resource conditions in your community? | matter, for example they could place shacks every 50 to 100 meters, and they should rent those shacks according to the person's ID, if he was born in the Mina, he is from the Mina, then he could rent the shack. And for the people who already own shops and restaurants near the shore, and had to pay tax fees for the Corniche to be build, should be granted a share in that Corniche. That people would feel more comfortable, and maybe they will keep the shore clean. If they do this they would be creating an economic movement in the area, they will get the attention of more tourists.  We are standing at the lowest level when it comes to benefiting from the coastal resources. Today if you have a coast that you can benefit from, perhaps have a fish farm, those kinds of activities are prohibited around here. The people from this area are not benefiting from the coast. Not only did they ruin the environment, they ar also not allowing us to benefit. On the other hand,   |
|--|--|
| ,  | foreigners are roaming free, opening up their own shacks, for example if a Syrian opened up a coffee shop/shack they let him, but if a Lebanese did they would fine him on the spot.   |
| B16. What are the factors that positively or negatively influence your business?       | If I want to talk about the oil drilling project they are planning to do, it will most definitely bring engineers and others, a class of workers that isn't currently present in the area. For me this is a positive factor that would affect my business, because at some point they will become new clients of mine, and I will benefit. Also this project will be good in another way, if a lot of people came to town for this project, they might consider opening up a hospital [he stated that Mina is a small city, yet it does not have a hospital]. Workers might bring along their families as well, so new people will be in town which is really good for business.  As for the negative effects of this project, I still haven't seen any negative effects, and I hope I won't. But I guess the negative effects could come from mistakes that could occur, for example pollution, but at the moment they are taking measures for handling any misshape and we can see that. They have the resources now that allows them to contain pollution if it did happen. This is the only negative factor.  Interviewer: Aside from the effects that this project might have, what are the current factors that are affecting your business?  Nothing affects me negatively other than the maltreatment of the municipality, and responsible parties in this country. The way the deal with people's problems here is disgraceful. We went and cleaned the islands and when we brought back the trash the municipality refused to take it, we had to rent trucks on our own expenses so we can go to the dump site, when we got there they wouldn't allow us to enter because we needed a permit from the municipality. We tried doing well by cleaning, but we became outlaws. So we asked the truck driver to deal with the trash, gave him money, and we never knew where he threw them. He could have thrown them in sea, the river, no one knows. So now we stopped doing those kinds of activities, unless they were okay with whatever we wanted to do. That way they can look like the hero, and if some televis |

| B17. How much does your business relies on marine resources? (Note to interviewer: please ask for the degree of reliance) | □ a. Extreme     □ b. Very High □ c. High □ d. Moderate □ b. Low □ b.  None  |
|---|--|
| B18.1. Are you located in a village with cultural heritage? If so please describe it and provide an approximate location? | I think I am a part of the cultural heritage. Even my shop has that cultural heritage vibe. And I am someone who is fond of cultural heritage, so I try to keep a hold of it whenever I can.   |
| B18.2. Are there any touristic sites or nature reserves in the neighborhood? If yes, please describe them                 | We have the island reserve, but as I told you they closed it, and they won't let the people benefit from it. We talked about this with many officials, and the person in charger Dr. Jaroudi. I think the environment committee of the north took this matter into its hands, and they promised them money, I think one millions USD per year or something around that, but unfortunately they don't seem to care. They only work in the season where people might come, they clean the beach, the islands and that's it. If there was a Ministry of Environment that follows up the work, then they would oblige them to open up the reserve all year round. I can make a group pf foreigners now and bring them from Beirut to hike on the islands, it's not necessary that they swim, maybe it's still winter. They could bid for a shack on the reserve, that way they take care of it. Meanwhile they keep it closed and only open it up in summer where everyone bring their barbecue and ruin the territory so turtles can't lay their eggs anymore. Bottom line no one is working for the sake of the town. This reserve is most essential environmental resource, there's nothing like it in the whole Mediterranean, yet they neglect it, and choose to not benefit from it. |
| B19. How much your business relies on such sites? (Note to interviewer: please ask for the degree of reliance)            | □ a. Extreme □ b. Very High □ c. High □ d. Moderate □ b. Low □ b.  None. My work depends 40% on the sites and 60% on resources we extract from the sea, such as fish and other seafood  [note that the interviewer and the interviewee both did not mention what might the degree of reliance be]  |
| B20.1. Do you have adequate water supplies in this area?  | Yes  |
| B20.2. What about electricity and waste management services?  | The electricity here is the same as everywhere else in Lebanon, terrible. We need to have more than one electricity source, we have the generator of the funder, and we have our own generator, and the spare battery at home. If you don't have 5 or 6 sources of electricity you can't work properly. If the electricity is out, until the generator of our street turns on, you need to have power by the battery. And if the generator of our street was broken, then you need to turn on your own generator.  |

| B20.a. Are you satisfied with the infrastructure in this village?           | Not at all. There is a road up ahead, you can see it and even photograph it, they turned it into a pedestrian road, and they took out the cement and put tiles on top of sand. And they hanged up the presidential decree and its number. Yet cars still go through this road. But when you took out the cement and placed tiles on top of sand, the ground is no longer protected. The old sewers of this town consisted of a dug tunnel. Now sand is collapsing, so the ground is becoming squiggly, and they have to open up a sewer every now and then, then they see that it is collapsed even more on the other side, so they open up another sewer. So you see a sewer opened up every five meters. so we are left with chunks of cement, opened sewers, left garbage extracted from the sewers, the awful smell, and flies. So of course I am not satisfied with neither the sewage, nor electricity infrastructure in the village |
|---|--|
| B20.b. How can the provision of infrastructure affect your business?        | It has a tremendous effect already. If this current situation of the roads changes, our businesses will flourish, because will have easier access to the restaurant, they can walk freely. There will be no more cars that block the way of other cars, because this road has a dead end, so if you enter you're stuck and you need to drive reverse, but you see that there are more than ten cars parked behind each other, and then you'll have a problem.  |
| B21.1. How do you find the condition of local roads?                        | [the interviewer merged both questions B21.1. and B21.2.]  No, we only have cab drivers that hold red plates, but it is not enough. So if people need to go somewhere, not far, they need to take their cars, or do as I did, I have a motorcycle, and you either have to pay the mechanic fees that cost more than the ones for a car, or you drive it illegally and risk its seizure, and maybe get fined as well because you are not wearing your helmet, but why would I wear it if it's a close by drive. And I usually do it because I don't have anyone to drive me. It's a big problem  Interviewer: why not buy a bicycle?  Yes we bought a bicycle, and rollers, and a motorcycle, and a car. And every time the level is upgraded, we upgrade our transportation.   |
| <b>B21.2.</b> Are there any public transport services?                      | [covered in question B21.1]  |
| B22.1. How do you describe the safety and security conditions in this area? | Safety and security [said while laughing], bye bye safety and security [it was a play on words in Arabic], because guess what, you never see a police officer nor someone from the municipality, nor a gendarme. And they call them after a fight has already happened, and they come to ask what happened. And then they go to the hospital to see that people are literally broken [said sarcastically and while laughing]. We sort of hold the safety and security in this town. If we see two men about to fight we go and take them off of each other, just so there won't be any fighting near our homes and shops.  |

| B22.2. Which parties play the major role(s) in this regard?   | All parties are playing negative roles, because they are all conspiring with each other.   |
|---|--|
| B23.1. What are the main illnesses in the community?  | [Note that the interviewer merged questions B23.1. and B23.2.]  I told you this is the only city that doesn't have a hospital. So health care facilities are non-existent. They write on the front of the clinic, the clinic is open 24/7, but go there right now you will see that it's closed. There is no healthcare. If you healthcare you will have to go to another city, for me Tripoli is another city. I was born here in Mina, in Al-Askali. So I have to go to another city if I needed healthcare. We don't have healthcare.  Interviewer: so what are the main illnesses you see in this community?  We don't have a lot of illnesses. Lately we started hearing of this bizarre flu that was going around, and you see everyone has the flu. |
| B23.2. How do you describe the healthcare facilities in this area (what are they and where are they?)?          | [covered in question B23.1]  |
| B23.3. Do they satisfy the community needs?   | No   |
| B24. What are the forms of communication used by people in your community?                                      | ☑ a. Telephone ☑ b. Internet ☐ c. Mail Services ☐ d. Other  We only have telephones, we have no other means  Interviewer: You use social media  Yes  |
|   | ENVIRONMENT AND NATURAL RESOURCES  |
| B25.1. Are there any natural resources (both offshore and onshore) available in the neighborhood?               | ☑ Yes □ No We have fishing, either for fish or seashells, but we still perform them in a primitive way. It could be developed but we don't have the means to develop it.   |
| B25.2. If yes, who are the parties managing those natural resources? And who are the ones who make use of them? | There is no one responsible for it. Each person fishes the way he pleases. The party responsible should be the Ministry of Agriculture, and each person should get a permit. We have maybe 20, 120, or 1,200 boats that don't even know how a permit looks. Only the people who might face problems when fishing using nets might go get permits. Even the people who fish right on shore, using a fishing hook, as a hobby should have permits.  No one is benefiting from them, because we are still fishing in a primitive way. No one is actually benefiting, except for fish shops maybe, because they sell the fish  |

| B26.a. Please describe briefly the climate in this area?   | We are famous for always having cool breeze in summer. This can be maybe used for surfing, sports that include sailing, but unfortunately, they ruined our shore as I said, which prohibited any access if you want to sail. Nevertheless, his breeze might hurt the fishermen, because they will need to go and fish earl before the breeze starts.   |  |
|--|--|--|
| B26.b. Please describe briefly the air quality in this area?   | 70% of the time, we have a south western wind; it is clean, salty, and humid.  |  |
| B26.c. Please describe briefly the water quality in this area?   | The sea is polluted, the first one and a half kilometers of it is polluted at least. Thank god we have those islands, because when you reach them you would have gone two kilometers from shore. There the quality of the water is perfect for fishing, and swimming. We also have the reserve that is five kilometers from shore, the water there is so refreshing. I take foreigners on trips to go to those reserves when they open. I usually take 15 to 20 people, and they have a great time. Fresh air, clean water. The only proble is the first one and a half kilometers, because they are polluted, sewage waste is dumped in them. we have a lot of sewage waste, and instead of it to be dumped in the municipality's tank, they get dumped in sea. |  |
| B26.d. Please describe briefly the Offshore Ecology and Geology in this area?  | There is no one who takes care of the ecology and geology of this area. In case they do take care of the environment it won't be accurate. I was one of the people who founded the Environmental Safety Organization, the sea environment, and we wanted to plant seashells, we planted them in there right spot, and they grew, but unfortunately no one helped.  Interviewer: So we can say that there is an amenable environment but there is no one to take care of it  Yes, you need a responsible party to take charge of things, to help, to work on developing the environment   |  |
| B26.e. Please describe briefly the shoreside Ecology and Geology in this area?   | We have nothing but the island reserves that we already talked about. Ramtin island is the closest point to Cyprus, it is the western part of Lebanon. It is a great location that we can take advantage of, but no one tries to work on it.   |  |
| B26.f. Please describe briefly the Natural Resources in this area?   | We have no natural resource other than the sea, and I told you that there is no one that takes care of it. It's a shame to have the poorest city on the eastern coast.   |  |
| B27.1. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment in this area? | We have the waste dump, thanks to our municipality! When the wind blows the smell of the waste spreads all over the town, in our homes even. So we need to close the windows, put on a mask so we can sleep.  No we have no floods or earthquakes at the moment. We used to hear of earthquakes that used to happen maybe 100 years ago, but I have never seen anything like that  |  |

**B27.2.** If yes, how is your business impacted? Please describe?

Not only does it affect my business, it affect my entire life. This is something that we can't escape from.

# TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE – STAKEHOLDERS – BEACH RESORTS

| Location of Interview: (Village/Caza/Block Number):                         | Chekka Block 4   | Date of interview :                         | 5/27/2019              |
|---|--|---|------------------------|
| Name of Interviewee :   |  |   |                        |
| IntervieweeGender :   | Female   |   |                        |
| IntervieweePostion :  | Manager  |   |                        |
| Name of Interviewer :   | Wahib Izmiraghdi   |   |                        |
| Notes   | Please introduce the oil drilling activities using opportunity for questions and answers   | g the BIDs and posters and giv              | re the participants an |
|   | F. BEACH RESORTS   |   |                        |
|   | DEMOGRAPHICS AND CAPACI  | TY  |                        |
| D1. Please describe briefly your economic activity. What do you exactly do? | Our business consists of a hotel and a resort which are mostly active during summer since we have the finest salty shore in Lebanon. We've been always striving to activate our work during winter as well, and we thought that the oil drilling operations might open doors to more profits and job opportunities. Tourists and travellers would start arriving to our resorts and occupying rooms and chalets, and we in return would offer them our services. Nothing but positive outcomes has crossed my mind as soon as the oil drilling operations were introduced to me. |   |                        |
| D2. How long has your business been operating?                              | We've been operating this business s   | ince 16 years so far.                       |                        |
| D3. Is it the main source of your household income?                         | Yes, although we rarely work during gradually declining year after year, v score profit and gains. We are hoping   | we're trying our hardes                     |                        |
| D4. How is your establishment is best described?                            | ■a.Beach Resort □b.Spa: □c. Other, please s  | specify:                                    |                        |
| D5. What is the total number of:  | ☐ Chalets/ Rooms: 170/ 54 ☐ Cabins: 60 ☐ Bung  | galows: <mark>6 □</mark> Other, specify: Re | staurants              |

| D6. Do you have direct and private access to the beach?   | □Yes □ No   |                                    |
|---|---|------------------------------------|
| D7. What is the total number of your employees? We have about 50 employees ( seasonal employees are not included) |   |                                    |
| Total   | Females:  | Males:                             |
| Professionals: <b>eight</b>   | Females: Females Are Less Than Males  | Males: Males are more than females |
| Skilled Workers : Not Specified   | Females: Not Specified  | Males: Eight-nine                  |
| Unskilled Workers: 10 or more   | Females: Zero; women are housekeepers in our resort   | Males: 10 or more                  |
| D8. Over the last year (2018), what was your resort's average occupancy rate?                                     |   |                                    |
| Average Annual  | A 50% drop in our resort's average occupancy rate   |                                    |
| High-Season   | Last year was the worst year 50%.   |                                    |
| Low-Season  | We are obliged to take the market into account and (unspecified)  | to lower our prices.               |
| D9.1. From a financial perspective, how was your business doing for the past five years?                          | 2010 was our most successful year, but our work deteriorated for the past five years. Rumours and accidents have affected harshly our business activity throughout the recent years despite our renowned reputation for the finest unpolluted water and shore in Lebanon. |                                    |
| D9.2. What has influenced these trends?   | Beside the rumours and accidents, the low purch abstained them from frequently visiting our resort.   | nasing power of people have        |
| Socio-Economic Aspects  |   |                                    |

| D10.1. Who are your main guests?   | Our main guests are the local market and the Lebanese Diaspora and immigrants.   |
|--|--|
| D10.1. In your opinion, what makes them attracted to your resort?                      | Our resort grabs the attention and attracts guests since it is family oriented and one of the cleanest and most beautiful shores in Lebanon. |
| D11.1. Are you located in a village with cultural heritage?                            | No, there is only a near exhibition called 'el Nabou".   |
| D11.2. And are there any touristic sites in the neighborhood?                          | ☐Yes (religious touristic churches and sites)   ☐ No   |
| D11.3. If yes, please describe   | There are religious touristic sites like Saydet El Nourieh, and marvelous archaelogical churches in Anfeh.                                   |
| D12. Do you offer any specific tourism services? (E.g. tours, expeditions, boat tours) | No, people visit us in order to stay and spend a couple of days at the shore in our resort.  |

| D13. What type(s) of marine recreational activities you offer to your guests? Please describe | All activities are available in our resort, for instance like the skinotic, diving, and jet skies.  |
|---|---|
| D14.1. Do you offer any other recreational activities? If yes, please describe                | □Yes □ No   |
| D14.2. If yes, please describe:   | Not Asked   |
| D15. Do you have restaurants?   | □Yes □ No   |
| D15.a. Which types and do they have a seafood menu?   | We have an international Lebanese restaurant in the hotel, another fast food snack near the pool and a Seafood restaurant that opens only during summer season. |
| D15.b. If yes, from where do you purchase the seafood items?                                  | We purchase the seafood items from Byblos markets.  |

| D16. Are you reliant on any goods used for your business which are shipped?   | Yes, we rely on Brazilian meat which is usually shipped.   |
|---|--|
| D16.a. Are your resort's purchases of supplies imported through any of the Lebanese ports?  | We don't directly import purchases since we buy them from suppliers according to our needs and requirements.   |
| D17. Do your resort's guests face transportation difficulties in getting to/or leaving the resort? (E.g. traffic, lack of transportation means) | Tourists usually worry about returning back on Sunday to the capital or other regions due to heavy traffics at the end of the weekend. Our region doesn't suffer from any traffic problems. In addition, there are no available public transportations in our community so everyone is entitled to come in his or her own car. |
| D18. Are you satisfied with the infrastructure (e.g. electricity, water, waste management) and land and marine use in this area?                | □Yes □ No  |
| D18.a. If yes, why? If no, why not?   | No, since the government doesn't provide us with a water system and consequently we are cooperating with the municipality to receive a water system. We have our own two refineries, but we are unable to engage in the government's refinery since it seems smaller than expected and designed.                               |
| Environment and Natural Resources   |  |
| D19. Are there any natural resources (both offshore and onshore) available in the neighborhood?   | □Yes □ No  |

| D19.a. If yes, who are the parties managing those natural resources?   | Fishermen themselves manage those natural maritime resources.   |
|--|---|
| D19.b. If yes, who are the ones who make use of them?  | Some fishermen sell small quantities of their goods in their own small restaurants, while others put large quantities of fish in Tripoli market for sale; this market is one the most popular and well reputed in Lebanon.                                    |
| D20.a. Please describe briefly the quality of the climate in this area?  | We have a beautiful mild climate due to the near presence of El sha'ame mountain that reduces hot weather and spreads dull breezes into our region.   |
| D20.b. Please describe briefly the air quality in this area?   | The nearby factories don't affect the quality of air since smokes are being discharged away from our resort.  |
| D20.c. Please describe briefly the water quality in this area?   | We use limestone water due to the pervasive white land that causes many damages and harms like the destruction of pipes and others. However, our sea water is considered unpolluted with only 8% of pollution in comparison with 88% of that in Marina Dbaye. |
| D21. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment in this area? | □Yes □ No   |

| D21.a.If yes, how is your business impacted? Please describe | Not Asked |
|--|-----------|
|  |           |

# TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE – STAKEHOLDERS – BEACH RESORTS

| Location of Interview:<br>(Village/Caza/Block Number):                      | Batroun  |                  | Date of interview: | 19/05/28 |
|---|--|------------------|--------------------|----------|
| Name of Interviewee :   |  |                  |                    |          |
| Interviewee Gender :  | Male   |                  |                    |          |
| Interviewee Postion :   | Manager  |                  |                    |          |
| Name of Interviewer :   | Wahib Izmiraghdi   |                  |                    |          |
| Notes   | • It seems like there was someone observing the interview that did not state his name or position but did participate once or twice in the conversation either to acknowledge what was being said or to add a few words in order to help out stakeholder.                                  |                  |                    |          |
|   | G. B   | EACH RESORT      | s                  |          |
|   | DEMOGRAPH  | ICS AND CAPA     | CITY               |          |
| D1. Please describe briefly your economic activity. What do you exactly do? | We are a resort. We have hotel rooms and chalets. We also have food and beverages. We have a Lebanese Seafood restaurant as well as a beach and a swimming pool. The summer is mainly our high season but we do also work during the winter by receiving groups. That's our main business. |                  |                    |          |
| D2. How long has your business been operating?                              | It has been operating for a really long time. It belonged to someone else. The current owner took over in 2006.  |                  |                    |          |
| D3. Is it the main source of your household income?                         | Yes.   |                  |                    |          |
| D4. How is your establishment is best described?                            | ■ a. Beach Resort  | Spa: □ c. Other, | please specify:    |          |
| D5. What is the total number of:  | □ Chalets/ Rooms: 97 □ Cabins: 80-90 □ Bungalows: □ Other, specify:  Currently, the number of chalets is 97 but there is a project underway which needs a bit of time that will raise that number to around 200.   |                  |                    |          |

|   | The number of cabins will also double thanks to the project.  |            |  |
|---|---|------------|--|
|   | Interviewer: are there any small suites or so Yes, we have many categories. There are sta junior suites and big suites.     | •          |  |
|   | Interviewer: is there anything else? No. There are lockers. Cabins and lockers.   |            |  |
| D6. Do you have direct and private access to the beach?   |   |            |  |
| D7. What is the total number of your e                    | mployees?   |            |  |
|   | mer. When it comes to the total number, I don't<br>er around 30-35 and in the summer that numb                              | •          |  |
| Interviewer: Does it double? It depends on how much occur | upancy we have.   |            |  |
| [interviewer asked to give per                            | centages for the categories that follow]  |            |  |
| Total   | Females: _40%   | Males: 60% |  |
| Professionals:  | Females:  | Males:     |  |
| Skilled Workers:  | Females:  | Males:     |  |
| Unskilled Workers   | Females:  | Males:     |  |
| D8. Over the last year (2018), what wa                    | s your resort's average occupancy rate?   |            |  |
| with the maximum you offer? year? In summer or winter?    | year, what was the average occupancy rate If you can provide an 100% occupancy rate, w                                      | •          |  |
| Interviewer: The average in games The total.              | general.  |            |  |
| THE WIAL  | Around 40%, if we count summer and winter   | together.  |  |
| Average Annual  | Interviewer: So was it a bit low? In summer, it was high but in the winter, it was  |            |  |
| High-Season   | In summer, there was a long period in which the occupancy rate was at 100%. Between 90 and 100%. But in winter, it dropped. |            |  |

| Low-Season   | [question answered previously]   |
|--|--|
| D9.1. From a financial perspective, how was your business doing for the past five years? | These past two years were good. The years before that were acceptable, but last year and the year before that were better than the three that came before them.  |
| D9.2. What has influenced these trends?  | Interviewer: it seems that previously the occupancy rate was low and it improved.  The security situation in Lebanon wasn't good. In the last two years, we regained a bit of security and that reassured the Lebanese living abroad and the foreigners. Plus, European tourists started coming these last two   |
|  | years. It had been a long time since they came.  Socio-Economic Aspects  |
| D10.1. Who are your main guests?   | The majority are Lebanese expatriates. There are some foreigners. I say this in regards to the hotel.  |
| D10.1. In your opinion, what makes them attracted to your resort?                        | First of all, it's far from the chaos of the city. Second of all, the resort is very nice, if you get the chance to walk through it. It's spacious, not crowded. There are areas for children to play and a playground. We are mainly a family resort. The sea is very safe.  Interviewer: You mean to say the resort is very rich in facilities? That's 100% correct. |
| D11.1. Are you located in a village with cultural heritage?                              | Yes. Batroun possesses many monuments. I am still discovering new things here since I am not from this region.   |

| D11.2. And are there any touristic sites in the neighborhood?                                 | ☑ Yes □ No   |
|---|--|
| D11.3. If yes, please describe  | Yes, right next to us there is the Phoenician wall.  Mseilha Fort. There are many.  The Phoenician wall is within walking distance from here. Mseilha Fort is three mins away by car.  Interviewer: So everything is close to each other?  Yes. We also see here religious tourism like St Rafka. Observer adds Al-Hardini; We get many groups that are on a religious tour. |
| D12. Do you offer any specific tourism services? (E.g. tours, expeditions, boat tours)        | [question not asked]   |
| D13. What type(s) of marine recreational activities you offer to your guests? Please describe | We have jet skis [observer adds diving school], a diving school and we offer boat rentals for whoever wishes.  |
| D14.1. Do you offer any other recreational activities? If yes, please describe                | Usually no. We have a swimming pool and a beach access.  Interviewer: so everything is in relation with the sea.  Observer: There is someone right next to us that take care of things like bicycles, hiking and events.  They work in collaboration with us. If anyone wishes to plan a trip, they can. We arrange deals with them.   |
| D14.2. If yes, please describe:   | Not Asked  |

| D15. Do you have restaurants?   | ☑ Yes □ No   |
|---|--|
| D15.a. Which types and do they have a seafood menu?   | One is a seafood and lebanese restaurant. We also have a pool bar and a beach par that open in the summer.  Interviewer: The seafood restaurant has a menu and you've picked the seafood and everything is operational?  Yes.  |
| D15.b. If yes, from where do you purchase the seafood items?  | All of the seafood comes from the fisheries of the region. The majority, 90-95% is fresh.  |
| D16. Are you reliant on any goods used for your business which are shipped?   | The items not available in Lebanon are shipped. There are things that are not always available, thus we keep a stock of those frozen items.  |
| D16.a. Are your resort's purchases of supplies imported through any of the Lebanese ports?  | We work with suppliers, we don't import products ourselves.  |
| D17. Do your resort's guests face transportation difficulties in getting to/or leaving the resort? (E.g. traffic, lack of transportation means) | No. The only difficulty is the traffic for those who are coming here from the airport. They arrive here exhausted.  Interviewer: Is there traffic here in the area? Here, no but there is traffic from the airport till Jounieh.  Interviewer: Do you think the means of transportation here are good or do you find it lacking? |

|  | They're not lacking. There are buses and taxis. All means of   |  |  |  |
|--|--|--|--|--|
|  | transportation are available. <b>Observer:</b> There are also shuttles in the market, those small vehicles, for those who want to look around.   |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| D18. Are you satisfied with the  | In this area, yes. In terms of waste management, yes we are satisfied. There are no issues. When it comes to electricity, it's the same as all over Lebanon. Observer: Nothing has changed here in that regard.  |  |  |  |
| infrastructure (e.g. electricity, water, waste management) and land and marine use in this area? | Interviewer: and in terms of waste management? [prodding more into the   |  |  |  |
|  | topic] Observer: We have no problems whatsoever. Even in the middle of the crisis that happened in Lebanon, we were the only region that was not affected because the municipality was taking care of everything.  |  |  |  |
| D18.a. If yes, why? If no, why not?  | Not Asked  |  |  |  |
|  | Environment and Natural Resources  |  |  |  |
|  | ☑ Yes □ No   |  |  |  |
| D19. Are there any natural resources (both offshore and onshore) available in the neighborhood?  | Interviewer: offshore as in anything that might come from the water and offshore like beans.  Of course there are offshore resources like fish. The fishermen here catch everything. [observer agrees]  When it comes to agricultural resources, they come from regions that are higher up. [stakeholder adds that they come from the mountains]. Not from Batroun or the coastal area but from the areas used for that purpose. |  |  |  |
| D19.a. If yes, who are the parties managing those natural resources?                             | There is no management. The fisheries take care of their business. The fishermen of Batroun. The people who work at the port.  |  |  |  |

| D19.b. If yes, who are the ones who make use of them?  | Interviewer: They're the ones benefitting from them [referring to the fishermen that manage the marine ressources]  Correct.   |
|--|--|
| D20.a. Please describe briefly the quality of the climate in this area?  | In the winter, it's moderate. In the summer, there are days, like most coastal regions, when it's hot but less than Jounieh and Beirut in regards to heat and humidity.  Observer: There isn't much humidity   |
| D20.b. Please describe briefly the air quality in this area?   | No. The nice thing about the area here is that whether it's the beach or the air, both are very clean.   |
| D20.c. Please describe briefly the water quality in this area?   | There are no problems. Do you mean the water provided by the government? In principal, there are no problems with it. We've never suffered from any issue related to that.   |
| D21. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment in this area? | [When asked about industrial remains in the air or solid waste, both the stakeholders and the observer said no] Interviewer: What about natural hazards like earthquakes and floods that might impact the environment in this region? If earthquakes occur, of course we will be impacted. [Observer talks simultaneously adding that there has never been any earthquakes]. But if an earthquake was to occur, we are right next to the sea and generally the regions that are by the sea are the ones that are most affected by that. That has never happened though, and hopefully it never will. |

D21.a.If yes, how is your business impacted? Please describe

Not Asked

#### **ADDITIONAL NOTES**

#### Question D7:

Interviewer: how many professionals do you employ?

the number is divided between professionals in hospitality, technicians and others. As you may know, there are many departments in hotels like laundry, maintenance, etc. Everyone working in the reception and F&B (food and beverage) departments is usually a technical hospitality professional. As for the rest, it depends on their departments.

**Interviewer:** among professional, is the percentage divided between males and females? yes.

**Interviewer:** what about the skilled and unskilled employees? Do you have employees that are maybe not technicians or that may not have a specific specialty?

It's a higher number than that of those who've studied hospitality. That's the case in all of Lebanon, not just here unfortunately.

| TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE – STAKEHOLDERS – RESTAURANTS  |                                     |                      |            |
|--|-------------------------------------|----------------------|------------|
| Location of Interview:<br>(Village/Caza/Block Number):   | Jounieh, Keserwan, Mount<br>Lebanon | Date of interview :  | 19/05/2019 |
| Name of Interviewee:   |                                     |                      |            |
| Interviewee Gender:  | Female                              |                      |            |
| Interviewee Position:  | General Manager                     |                      |            |
| Name of Interviewer:   | Margueritte Nassif                  |                      |            |
| Notes  | •                                   |                      |            |
| THEME 1 DEMOGRAPHICS   | L – STAKEHOLDER ENGAGEMENT AN       | ID IMPACT ASSESSMENT | ī          |
| Q1. Please introduce the oil drilling activities using the BIDs and posters. Once completed give the participants an opportunity for questions and you provide an answers to their questions as far as possible. If you cannot answer then please take the stakeholders contact details and tell them you will get the answer and get back in contact as soon as possible. |                                     |                      |            |
| Q2. Now, do you have questions?  | No                                  |                      |            |
| F. Restaurants   |                                     |                      |            |
| Demographic and Canacity   |                                     |                      |            |

| No, I'm from Zouk.   |
|--|
| Two years for now.   |
| This is a complex that includes a restaurant, a pool, beach access, cabinets, lockers, and a very nice terrace. We offer walk-in access. We focus a lot on families and don't allow couple access. I follow up with my customers. I take reservations and cover all types of events. We have special programs every Saturday that we supervise. [incomprehensible] |
|  |
| ☑ Yes □No  |
|  |

#### F2.b. If yes, from where do you purchase the seafood items?

We have signed contracts with fishermen that catch all the seafood. Not with private companies, but fishermen. There is a particular person that makes sure to receive the seafood and checks them all in the presence of the chef. I don't trust companies. I may be annoying to work with, but my customers want to eat good food and I don't want to fool them by telling them the fish is fresh when it's frozen and we've just defrosted and fried it.

F3. How long has your restaurant been operating? (Note to interviewer: please probe into seasonality of the business, and operations during weeks vs. weekends)

It's been nine years.

**Interviewer:** Do you have any other branches? Yes, in Jounieh across from KFC and in Dora.

**Interviewer:** Is the work here seasonal or all year round?

All year round.

**Interviewer:** Are the programs you offer the same in winter and in summer?

No, we change them. For example, in winter all our programs are indoor. Now that the summer season has officially begun, we can throw beach parties, work outdoors, we invite people to perform. We get people from different cultures. One night could be Brazilian themed, the next could have a piano theme. We try to change it up.

| Yes, and that isn't my case alone.   |                              |                        |  |
|--|------------------------------|------------------------|--|
| F5. How many dependents are there in there are six that are partners in                                |                              |                        |  |
| F6. Do you have direct access to the bea   | nch from your restaurant?    | <mark>⊠ Yes</mark> □No |  |
| F7. Do you have a sea view?  |                              | ☑ Yes □ No             |  |
| <b>F8.</b> What is the total number of your em 80 employees approximately if w                         |                              | that works here        | e even in the kitchen.   |
| Total  | Females: _nine including m   | e                      | Males: _71   |
| Professionals  | Females: _Six                |                        | Males:   |
| Skilled Workers  | Females:                     |                        | Males:   |
| Unskilled Workers  | Females:                     |                        | Males: _40   |
| F9. How would you evaluate the perform   | mance (growth/decline) of yo | our business for tl    | ne past three years?   |
| Economically, there was a decline to visit us. Now, there's nothing.                                   |                              | ~                      | we know the value of the tourists that used                                |
| F9.c. What factors have influenced this  | growth/decline?              |                        |  |
| The major increase in prices. I an It's been an increase in the prices the quality of the ingredients. | •                            | •                      | work based on a study of prices. singly expensive and we can't cut back on |
| Interviewer: The ingredients you They're ingredients we buy from                                       | •                            | ught locally or        | imported?  |
| F9.d. What were approximately the ann business turnover in USD)  | ual revenues vs. expenses la | st year (2018)? (      | Note to interviewer: please ask for a range of the                         |
| The turnover was very low. There   | e was a major decline in     | 2018. We saw           | a decline of about 30%.  |
| <b>Interviewer:</b> If I were to say be  | tween 5,000 and 100,00       | 00 USD? Betw           | veen 50,000 and 100,000 USD? In which                                      |
| category would you place your bu   | usiness?                     |                        |  |
| Approximately 35,000 USD.  |                              |                        |  |

#### F10. What are the conditions for business development in your community?

As a complex, I have already started working on the conditions. Firstly, lowering prices.

**Interviewer:** Even though the resources are expensive?

Yes. People shouldn't pursue the gain they have in mind. Some people choose a specific target. Before, working with my employees we'd say for example we want to make 20,000 USD. Knowing we might not reach that amount, we'd have to lower the target to motivate the employees and convince our customers. We want the customer to come in with his family and not feel like he's being robbed. We want him to want to come back.

**Interviewer:** Community wise, what do you think are the conditions that could lead to development?

As a community here we should develop the culture of citizens. Lessen the impact of politics. For example, a few laws have been passed that impacted restaurants negatively instead of benefitting them. That contributed to our decline. The law that was passed wasn't studied well. We should bring back expatriates and encourage them to return to their country. In comparison, the number of foreigners here in Lebanon is very high and they are occupying most of the jobs. The simplest of examples is that there are no more Lebanese industrial painters, they're all Syrians. I don't mean to talk about discrimination but that is the reality of the situation. The conditions are being implemented on the Lebanese; meanwhile foreigners are coming into our land and doing whatever they want to. The Lebanese citizen is the victim of the laws being passed.

**Interviewer:** So you want to better implement labor laws?

Yes, exactly.

| Socio-Economic Aspects  |   |  |
|---|---|--|
| F11.1. Who are your main guests?                                      | They are locals. There are relatives. I'm originally from the north and we have a lot of people visit us from there. People from this region and friends from university.   |  |
| F11.2. in your opinion, what makes them attracted to your Restaurant? | The nice space, good service, the customer who comes in here and leaves comfortably. Here we work based on the customer's mentality and I focus on that when training my employees. We train them to understand the customer the minute he walks in. Understand how he should be treated. If they come across a customer that might be moody, they need to understand how to approach him in a manner that won't lead to conflict between staff and customer. |  |
| F12.1. Are you located in a village with cultural heritage?           | No.   |  |
| F.12.2. What is it exactly and approximately where?                   |   |  |

| F.12.3. Are there any touristic sites in the neighborhood?   | ☐ Yes ☐ No   |
|--|--|
| F.12.4. If yes, please describe  |  |
| F13. 13. Do your restaurant's guests face transportation difficulties in getting to the restaurant? (E.g. traffic, lack of transportation means) | Yes. They face problems on their way here. Basically everything related to transportation is a problem. No one uses buses. Everyone arrives by taxi, me included.  Interviewer: There are no bus routes that pass by here?  No. Each bus drivers knows now what areas he cares about and where people might be waiting.  Interviewer: Is it possible that if someone is waiting outside this restaurant, the bus will pass him by without stopping for him?  Yes, that happens frequently.  Interviewer: Are there particular reasons why that bus drivers might not stop? It depends on the driver and his personality. |
| F14. 14. Are you satisfied with the infrastructure (e.g. electricity, water, waste management) and land and marine use in this area?             | <b>Yes</b> □ <b>No</b> There are no problems at all. On the contrary, sometimes garbage washes up on the shore so we fight that here in Jounieh. We focus on cleaning the shore.   |
| F.14.c .If yes, why? If no, why not?   | I am satisfied because recycling is being done. There are companies that, if we separate the garbage for them, take all of the plastic and cardboard. We have a lot of cardboard, paper and cans that we recycle. We have many specific garbage cans for that purpose. We've separated our garbage. In addition, we always work on cleaning the beach. For example, if we see a garbage bag floating in the water, someone will go out to retrieve it on jet skis.   |
|  | Environment and Natural Resources  |
| F.15. Are there any natural resources (both offshore and onshore) available in the neighborhood?   | □ Yes ⊠No  |

| F.15. a. If yes, who are the parties managing those natural resources?   |  |  |  |  |
|--|--|--|--|--|
| F.15. b. If yes, who are the ones who make use of them?  |  |  |  |  |
| F16.a. Please describe briefly the Climate in this area?   | The climate is polluted. It is true that there are trees in the area. It's not a place with any trees or plants. Nonetheless, the percentage of pollution is extreme.  Interviewer: Is it hot or cold? Is the humidity high?  Depends on each month. Now, in May, the climate is moderate. The high humidity occurs in July and August.  |  |  |  |
| F16.b. Please describe briefly the Air Quality in this area  | The air is dry.  |  |  |  |
| F16.c. Please describe briefly the<br>Water Quality in this area   | The water is calcareous. We always send a report of the water test to Jounieh's municipality and the result is that the water is always calcareous.  Interviewer: Does it contain bacteria? Yes, it contains bacteria. A type that affects the digestive system.  Interviewer: So the use of this water might cause problems? Yes.   |  |  |  |
| F17. 17. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment in this area? | <ul> <li>☑ Yes ☐No</li> <li>When it comes to noise, here in my location there isn't much noise. Our customers knowingly visit us.</li> <li>However, at a certain point we did suffer because of the landfills that the municipalities threw around randomly. The waste reached the streets. If it weren't for the high number of complaints, no one would've helped us.</li> </ul> |  |  |  |
| F.17.a. If yes, how is your business impacted? Please describe   | It ruined the view. If someone was coming to have lunch here and had to park in front of a landfill, they would of course be horrified. The first thing people comment on here is the beautiful view and they say that the restaurant is amazing but they wish it wasn't in this region. I've heard this many times.   |  |  |  |
| ADDITIONAL NOTES   |  |  |  |  |

- For question F8: [it seems like there is some slight confusion concerning how to classify the employees both from the interviewer and the interviewee]
  - -If we want to differentiate between professionals and others, how many females and how many males would there be?
  - -Everything related to sanitation, the cleaning of vegetables and such matters, I prefer that only women handle those.
  - -Those six women are the ones who work in that domain?
  - Yes.
  - -What about the male professionals?
  - -Everyone working in the kitchen under the chefs is male.
  - -We can consider chefs skilled employees. We have to differentiate between the professionals who are the sous-chefs and the chef who is a skilled employee. How many sous-chefs are there and how many runners?
  - -There are five sous-chefs. The rest are runners.
  - -How many skilled employees? How many chefs as skilled employees? Managers? Floor managers? Those individuals that are present as skilled employees.
  - -We work here as teams. Everyone is specialized in a specific domain. Some of the people here don't have degrees but they have experience in the field.
  - -That means they are skilled employees.
  - -I'm just making sure if you are talking about people with degrees or about their performance.
  - -I mean their performance at work, as a manager or anything. As you may know, a manager must have certain skills. He is a skilled employee. So how many managers are there and how many chefs?
  - -There is one executive chef. I am the GM (general manager) here. Under me, there is an assistant manager and there are people whose job is to work on banquets.
  - -How about the people that are unskilled? Those who clean. How many are there?
  - -It's a big number.
  - -We have to divide it between men and women.
  - -Approximately 40. All men.
- For question F16:
  - -You've said before that you disinfect the vegetables among other things.
  - -Yes, we have a food and safety manager whose domain this is. She checks everything from A to Z, checks the water and even the pool water. She checks everything.

### TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE — STAKEHOLDERS — RESTAURANTS

| Location of Interview:<br>(Village/Caza/Block Number): | Amchit, Jbeil, Block 4   | Date of interview : | Tuesday 28-05-<br>2019 |  |
|--|--|---------------------|------------------------|--|
| Name of Interviewee :                                  |  |                     |                        |  |
| Interviewee Gender :                                   | Male   |                     |                        |  |
| Interviewee Postion :                                  | Manager  | Manager             |                        |  |
| Name of Interviewer :                                  | Margheritte Nassif   |                     |                        |  |
| Notes  | Please introduce the oil drilling activities using the BIDs and posters and give the participants an opportunity for questions and answers |                     |                        |  |
|  | F. Restaurant  | ·c                  |                        |  |

| Demographic and Capacity  |  |  |
|---|--|--|
| F1.1. 1. Are you from this village?   | No I am from the South.  |  |
| F1.2. How long have you been residing here?   | Been living in Amchit for 20 years.  |  |
| F2.1. Please describe briefly your business.  | Chez Zakhia is a sea food restaurant at the Port of Amchit. We work on all kind of sea foods and fisheries found in the sea however our work is neutral. As we discussed earlier, all the work we do is linked to the economic status in the country however if the outcome of the project was of a good benefit on our economic status, it will help in profiting the country's sectors tremendously.  Interviewer: Can you please briefly describe yourself?  The manager of Chez Zakhia restaurant, I am responsible in managing the restaurant and interacting with customers. |  |
| F2.2 Which type of restaurant do you have?  |  |  |
| F2.a.Do you have a seafood menu?  | ⊠ Yes □No  |  |
| F3. How long has your restaurant been during weeks vs. weekends)  | oli. ood from fishermen? with companies that deal with fishermen on the coast. operating? (Note to interviewer: please probe into seasonality of the business, and operations  |  |
| We started operating back in 1986-Ramel". Moreover, it's been operating Interviewer: Does your work operation, we work in winter and summer sometime Interviewer: Can you value Chez Zanaturally, the peak of operating is in | e in seasonality?  |  |
| F4. Is it the main source of income in your Yes of course.  | our household?   |  |

| F5. How many dependents are there in Three kids and his wife.  | your household?   |                           |             |  |
|--|---|---------------------------|-------------|--|
| F6. Do you have direct access to the bea   | ach from your restaurant?   | ⊠ Yes                     | □No         |  |
| F7. Do you have a sea view?  |   | ⊠ Yes                     | □No         |  |
| F8. What is the total number of your employeeds on the seasonality around Interviewer: In summer, what is the Around 40 to 50 employees. Interviewer: How much males and faround 30% Females and 70% Male Interviewer: What about the profess 60 to 70 % professionals however 3 Interviewer: What about the skilled 15 for managerial and chef positions Interviewer: How many females and Around five females and ten males. Interviewer: And the unskilled work Three to four females and seven managerial and seven manageria | 30 to 50 employees. total between males and females? es. sionals? 0% normal employees av workers? Chefs or Manag s. d males? ers between males and fe | ailable on<br>gers for ex | ly for serv | rices.   |
| Total  | Females:30%   |                           |             | Males: _70%  |
| Professionals  | Females:  |                           |             | Males:   |
| Skilled Workers  | Females:5_  |                           |             | Males:10   |
| Unskilled Workers  | Females:7   |                           | Males:7     |  |
| F9. How would you evaluate the performance of the growth level is associated with the land growing because we witnessed  | ne economic statues in the  | e country.                | In the pas  | st three years, our performance was inclined   |
|  | tability that made foreigne   |                           |             | n however the openness of our country that<br>ort Lebanon is encountering from different |
| F9.d. What were approximately the and business turnover in USD) Approximately 20 to 30% our annual   |   |                           |             | ote to interviewer: please ask for a range of the and economic status in the country.    |

### F10. What are the conditions for business development in your community?

We need help from the municipality and the fixation of the infrastructure in Amchit like the roads here. However, we need support in all levels from municipalities, but regarding the business conditions inside the restaurant I don't think we have a constraint in this regard.

| Socio-Economic Aspects   |   |  |
|--|---|--|
| F11.1. Who are your main guests?   | Political figures, security figures, businessmen, and regular customers.  |  |
| F11.2. in your opinion, what makes them attracted to your Restaurant?  | The delicious and fresh sea food we have at Chez Zakhia. However, the originated Lebanese ingredients and fisheries in Lebanon. In addition, customers are loyal to Chez Zakhia; they trust the food they eat and that is why you need to maintain and assure that the food quality is excellent. The location of the restaurant is by the sea however it is good to sense and eat fish while wondering the sea at the same time. |  |
| F12.1. Are you located in a village with cultural heritage?  | We have at the Corniche of Amchit a cultural heritage however the second one stands at the upper side of Amchit. Moreover, we have different churches and old houses located at the heart of Amchit.  |  |
| F.12.2. What is it exactly and approximately where?  |   |  |
| <b>F.12.3.</b> Are there any touristic sites in the neighborhood?  | ⊠ Yes □No   |  |
| F.12.4. If yes, please describe  | The Corniche is located by the sea; the water is crystal clear they make sure to maintain a clear and fresh image of the sea with no chemicals in it.   |  |
| F13. 13. Do your restaurant's guests face transportation difficulties in getting to the restaurant? (E.g. traffic, lack of transportation means) | Not very much. Interviewer: Is there any traffic when reaching or leaving the restaurant? Not at all. We even welcome guests from the sea; riding on their own boats.   |  |

| F14. 14. Are you satisfied with the infrastructure (e.g. electricity, water, waste management) and land and marine use in this area? | Yes □No   |
|--|---|
| F.14.c .If yes, why? If no, why not?   | We all face the same challenges in infrastructure like the electricity, water and many others. However, the municipality is helping us in waste management and other obstacles we might face or encounter.  Interviewer: You told me, you are satisfied and not satisfied by the infrastructure. What are the elements that make you unsatisfied?  We should accomplish a lot of improvements in electricity and water. However, if we explored the oil and gas we should attain a better status in the country.  Environment and Natural Resources |
|  | Environment and Natural Resources   |
| <b>F.15.</b> Are there any natural resources (both offshore and onshore) available in the neighborhood?                              | ☑ Yes □No   |
| F.15. a. If yes, who are the parties managing those natural resources?   | Fishermen and divers in general that are divided at Port Amchit and Port Jbeil.  Interviewer: Any companies involved?  No, small fisher cooperatives. However the army here monitors everything that occurs by the sea.   |
| F.15. b. If yes, who are the ones who make use of them?  |   |
| F16.a. Please describe briefly the Climate in this area?   | Low humidity although the restaurant is by the sea. However if the humidity is 20 in Beirut, in Amchit it's the opposite.   |
| F16.b. Please describe briefly the Air<br>Quality in this area   | Very clean because we don't have industrial companies near the coast.   |
| F16.c. Please describe briefly the Water Quality in this area  | Too clean.  |

| F17. 17. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment in this area? | ☑ Yes □No   |
|--|---|
| F.17.a. If yes, how is your business impacted? Please describe   | For example, in three years ago we encountered a severe season were the waves wrecked the restaurant completely, but this kind of accident happens once in a lifetime. However, we closed the restaurant for two months because we had to renovate. |

| TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON<br>KEY INFORMANT INTERVIEW GUIDE - STAKEHOLDERS – HUMAN RIGHTS |                            |   |                     |           |
|---|----------------------------|---|---------------------|-----------|
| Name of village:<br>(Village/Caza/Block Number):  | North of Lebanon (Tripoli) | ) | Date of interview : | 5/21/2019 |
| Name of Interviewee :   |                            |   |                     |           |

| Gender of Interviewee   | Male  |  |  |  |
|---|---|--|--|--|
| Position of Interviewee   | Executive Director of Development for People and Nature Association (DPNA)  |  |  |  |
| Name of interviewer :   | Wahib Izmiraghdi  |  |  |  |
| Notes   | Please introduce the oil drilling activities using the opportunity for questions and answers  | Please introduce the oil drilling activities using the BIDs and posters and give the participants an opportunity for questions and answers   |  |  |
|   | HUMAN RIGHTS AND VULNERABLE GROU  | IPS  |  |  |
|   | A. DEMOGRAPHICS   |  |  |  |
| A.1.What is your name?  | My name is . I'm the Exc<br>People and Nature Association in Tripoli.   | •  |  |  |
| A2.Are you from this village?   | Yes, I'm from North Lebanon, Tripoli.   |  |  |  |
| A2.1 How long have you been residing in this village?                         | I'm residing in Tripoli.  | I'm residing in Tripoli.   |  |  |
| A3. How big is the village?   | The population is estimated to be 600,000 persons, while there's no available data for the size of Tripoli. We as an association work in all Northern regions like Akkar, Bshareh, Tripoli, Koura and including Batroun.              |  |  |  |
|   | B. AREA OF INTEREST   |  |  |  |
| B1. What is the objective of your organization and who are the beneficiaries? | Our main work in general is focused on human and nature development in Lebanon especially the marginalized regions in North and South of Lebanon. Our nerve center is located in Saida and a branch of the association is in Tripoli. |  |  |  |
|   | a. Total Population   | It's estimated to be 5 million people but I'm not sure of the accuracy of this number since studies have long been made in the country.  |  |  |
|   | b. Density  | It varies between a region and another, but I'm really not aware of the data.  |  |  |
| B2. Please briefly describe the demographics of Lebanon:                      | c. Religious Groups   | We are mainly 17 confessions in Lebanon and they are trying their best to introduce an 18 <sup>th</sup> one.   |  |  |
|   | d. Diaspora   | The number of emigrants outside<br>Lebanon is estimated to be two thirds<br>of the Lebanese population, but still<br>not so sure of the number given nor do<br>I have recent data studies. |  |  |
|   | e. Lebanese Civil War refugees and displaced persons  | The number of Civil War refugees and displaced persons might be equivalent to the Lebanese population  |  |  |

|   | f. Immigrants and Ethnic<br>Groups (including refugees)   | It is reported that their numbers exceed one million and a half of people. (About 800,000-900,000 Syrian refugees and about 380,000 Palestinian refugees) |  |
|---|---|---|--|
|   | g. Any others?  | There are also Egyptian and Iraqi refugees but they are considered as minorities in comparison with Syrian and Palestinian refugees.                      |  |
| B3.a.How do you evaluate the living standards of Lebanese people and the life expectancy?   | The living standards vary from a region to another. For instance, if we talk about North Lebanon 41% of people are under the poverty line, as for Bab el Tebbane in Tripoli 75% of natives are under the poverty line. As far as I know, the life expectancy is mainly in the sixties.  |   |  |
| B3.b. In this community in specific?  | (Not asked)   |   |  |
| B4. What are the main issues faced by the community?  | The economic situation is our main problem that has been existing for seven to eight years, in addition to the social problematic that are increasing year by year with the Syrian crisis.  |   |  |
| B5. Who are the vulnerable groups in this community/area?   | We can mention those people who are living with limited incomes or under the poverty line. I personally consider them as the most vulnerable category in our society especially that they became a majority and the middle class is shrinking progressively.  |   |  |
| B6. What are the biggest issues faced by the vulnerable groups?   | Unemployment is a major problem they're encountering and there exist environmental topics due to corruption and the poor management of these natural resources (water, wastes, public services)   |   |  |
| B7. In what ways does your organization support vulnerable groups in this community?  | We work in the education, health and livelihood fields plus we have several plans and projects concerning the environmental issues and I believe these four cases are the main priorities of the Lebanese society.  |   |  |
| B8. How do you describe the state of human rights in this community?  (Note to interviewer: please probe into torture, political detentions, limitations on freedom of speech, abuse and discrimination cases, freedom of religion, voting rights, internet restrictions etc) | In all countries where there exists no proper governance, authorities tend to practice non-democratic acts and activities and in this case violations of human rights will occur, whether violations between citizens or between citizens and the government.   |   |  |
| <b>B9.a.</b> What types of human rights violations are committed most often in this community?  | Torturing prisoners is the most committed violation in this community and it's increasing day by day and it's frequently highlighted on, in addition to political arrests. We are witnessing what's happening on social media and how social media actives are being followed and arrested. Unfortunately due to our confessional system, we still have cases of discrimination and prejudices and targeted categories that change with time. |   |  |

|  | There are moral and physical abusive acts as well that include bribes and clouts which violate the concept of human rights.  |
|--|--|
| B9.b. Against whom?  | (NOT ASKED)  |
| B9.c. By whom? And why?  | (NOT ASKED)  |
| B10. In what ways does your association protect human rights in this community?  | We are mainly involved in ensuring and securing job opportunities, we also try to work on developing people's abilities and capabilities and we spread awareness so people gain full knowledge about their rights and regulations.   |
| <b>B11.a.</b> Are there any other local organization engaged in similar activities in this village?  | Yes, there are many different organizations working on similar activities, for instance like the civil society's association.  |
| B11.b. What are their roles exactly?   | These organizations are trying to follow up with the cases in the society and find suitable solutions and suggestions.   |
| B12.What barriers exist for you/ and all organizations that work in this field?  |  |
| (Note to interviewer: Please probe into laws, policies, social norms or beliefs, government roles/responsibilities, access to resources, power of decision making) | These organizations face poor coordination with other similar organizations and misalignment between them and public institutions.   |
|  | C. ENVIRONMENT AND NATURAL RESOURCE USE  |
| C1.What are the natural resources (both offshore and onshore) available in this village?   | For sure, concerning natural resources we'll be dealing with water, air, shared lands that are being maltreated and managed. There's massive pollution in the running water and potable water, in addition to the random projects done in this field. There are no available laws that are restricting the air pollution which resulted due to factories' smoke, chemicals and so on. Many violations are being done against shared lands whether concerning the green area.  As for the onshore resources we have 13 islands where 4 of which are protected. This signifies that we have a rich maritime resource in our region, in addition to the |
| C2.1. Who are the parties managing those natural resources?  | fishing culture that is witnessing a sharp decline due to several violations.  We have a problem concerning this subject as well since four parties are managing those islands including Ministry of Environment, Ministry of Agriculture, Ministry of Transport and Works and the municipality. This inconsistency and conflict of interest are leading to poor management and coordination.  |

| C2.2. who are the ones who make use of them?  |  |
|---|--|
| (Note to interviewer: please probe into availability of seashell and sea worm collectors, sand extraction, salt harvesting)   | The dominant people on these regions and lands or the ones who inherited such resources from their ancestors and fathers.  |
| C3.From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment and natural resources of this village? | Yes, absolutely since we're currently working on rehabilitating one of these islands which is considered a prominent maritime island so we are being involved in such activities. As for seashells and Toutya, unfortunately there are no longer large quantities of them in El Mina region. Our fishing culture is being largely affected especially with the arrival of anonymous fish outside our sea and affecting eventually on the fishermen's progress and the fish sustenance. (The lion fish coming from the red sea are widely increasing in number and negatively affecting our fish.  I guess there are two major points affecting the marine environment, which are the sewage problems thrown randomly in our seas and wastes thrown in random garbage present on coastal zones. It's been 170 years since we felt a tremendous earthquake, but for sure if any disaster happens not only the maritime environment will affected but along with human environment. |
| C3.a. If yes, how is your business impacted? Please describe  | We as organizations are involved in advocacy matters, so if these subjects went out of control organizations will step up and plan advocacy campaigns to lessen such problems and find suitable solutions.   |

### TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE - STAKEHOLDERS — ENVIRONMENT

| Name of village:<br>(Village/Caza/Block Number):                              | Amchit/block 4   | Date of interview :   | Wednesday<br>29/05/2019  |
|---|--|---|--------------------------|
| Name of Interviewee :   |  |   | 23/03/2013               |
| Gender of Interviewee   | Female   |   |                          |
| Position of Interviewee   |  |   |                          |
| Name of interviewer :   | Marguerite Nassif  |   |                          |
| Notes   | Please introduce the oil drilling activities us opportunity for questions and answers  | ing the BIDs and posters and g  | nive the participants an |
|   | ENVIRONMENT  |   |                          |
| A1. What is your name?  | I have double major diplomas in bo<br>work as United Nations advisor for<br>World Bank and Lebanese governm  | A. DEMOGRAPHICS  I have double major diplomas in both mathematics and environment. I used to work as United Nations advisor for long time I worked with the UNDP, FA, World Bank and Lebanese government (for free).  And this is why I have the free of speech since I depend on my knowledge, law |                          |
| A2. ARE YOU FROM THIS VILLAGE?  | I am from Amyoun and my husband from Amchit  |   |                          |
| A2.1 HOW LONG HAVE YOU BEEN RESIDING IN THIS VILLAGE?                         | I have been living here since the 80's after coming from Paris.  |   |                          |
| A3. What is the population of the community?                                  | its 30,000 individuals. With 18 000 member of municipality.  |   |                          |
|   | B. AREA OF INTEREST  |   |                          |
| B1. What is the objective of your organization and who are the beneficiaries? | green square main objective  Some people care about the environment but don't want to go too far. The organization created the first reserved area (back to father Ethien Saker time), After bedneyal reserve, there's Arez El Chouf reserve, Ehden reserve, we did the identification of medicinal and aromatic plants for 3 years, we than bought water reservoir. We also created birdwatching centers, we taught people to become guides in the reserve, we contacted some embassies to do a tour in the reserve and we trained 120 people for firefighting.  We are planning for a sea project with Small Grant Program to create a kiosk (60*60m²) to display all the commercial fishes in Lebanon, and to teach everyone for free about the sea and how to preserve it this is the theoretical aspect, then we move to the practical aspect to teach them how to fish (responsible fishing). Unfortunately, we didn't get approved by the Ministry of Inferior. |   |                          |
| <b>B2.</b> Please describe briefly the: in this community.                    | the climate of the Lebanese seashore is high humidity.   |   |                          |

|  | b. Air quality  | most of it is south-west air by night it comes from the east and rarely northern   |
|--|---|--|
|  | the water is lime contaminated water and they add to it much chlore.  There's a huge change in the quantity of water supply   |  |
|  | d. Onshore ecology<br>and geology   | Dr. is the one that know the most about this topic. There's no study about this topic Dr. did a study regarding the north.   |
|  | e. Offshore ecology<br>and geology  | We have many wild animals such as the wild boar. But there's no study and that's why you find that there's a landfill in "hbelin" even though you have 12 artesian wells near it |
|  | f. Natural Resources  | Amchit is more about rocky area. You used to have sea urchin but not anymore, We have a well-known fish "Kafarabida" fish is very tasty  |
| B3. What are the natural resources (both offshore and onshore) available in this village?  | Yes, you can find fig, carob and olives.  |  |
| .B4.a. Who are the parties managing those natural resources?   | It depends if its public or private. The marine property are not managed by anyone.  We used to have an iron factory and a close sea shore area.  In Amchit the sea shore is a public entity everyone can benefit from it.  |  |
| B4.b. And who are the ones who make use of them?   | in randing the sea shore is a paone entity everyone can benefit from it.  |  |
| (Note to interviewer: please probe into availability of seashell and sea worm collectors, sand extraction, salt harvesting, tourism) | we don't have sea and we are not depending on sand  |  |
| B5. Do the coastline villages have unique environmental features? If yes, please describe  | Amchit is known for the sea and restaurant more like a village with some touristic place. Amchit's fish are known and delicious.  |  |
| B6. What are the most important coastal and marine resources located in this area?   | Fish and Tutia.   |  |
| B7. In what ways does your organization support or protect the Environment in this area?   | We do some awareness campaign, we are creating a center responsible for fishing to coach people, NGOs, and many other.  |  |
| B8.1. What are the biggest environmental issues in this area?  | Just like everywhere in Lebanon, our main issue is the garbage and the health iniquities (also affecting the sea)  The landfill of "Hbilin" is affecting the sea by it lixivia that go directly to a point between Jbeil and Amchit's sea in which they take the water to sell for people when they don't have water anymore.  In other terms we are drinking water from such places. |  |

| B8.2. And what are the biggest marine environmental issues in specific?  | You have the problem of health iniquities, they came 10 years ago to make waste water treatment between Jbeil and Amchit but now it's ruined. There's no supervising.  There's residential density because Amchit is known for its small apartments and each one has its own iniquity and with the massive construction due to lack of planning from the municipalities they gave them authorities to build many small apartments for only 1 iniquity while this can serve only 1 apartment.   |
|--|--|
| B9. Who are the main/ key players that heavily influence the Environment in Lebanon?  (Note to interviewer: please probe into parties managing coastal and marine resources in specific)   | We can predict what will happen after few years.  The political parties. You can still find some people that are knowledgeable about this topic and some caring people and its growing because people today are seeing what we are talking about.  As I told before I used to work with the united nation, we did a study about the climate change until 2080 and I was responsible of the social and economic impact of this climate change on Lebanon.  Unfortunately, this study was not taking into consideration and still until today you find that when there's a conference they don't assign the right person to participate.   |
| B10.a. Are there any other local organization engaged in environmental matters in this village? What are their roles exactly?  | Yes, Byblos Ecologia is like sister organization and Lebanese environmental forum.   |
| <b>B10.b.</b> What are their roles exactly?  | Byblos Ecologia is interested in waste in "Berbara", as for Lebanese environmental forum is more scientific because it gathers many organizations and it will do some studies on fishing, fishermen, and types of fish. It's more related to the sea   |
| B11. What barriers exist for you/ and all organizations that work in the environmental field, to protecting and enhancing the "Environment of Lebanon" in all its aspects?  (Note to interviewer: Please probe into laws, policies, social norms or beliefs, government roles/responsibilities, access to resources, power of decision making) | The politician first of all and the law in Lebanon.  We work on the laws, for example for the waste in 2006 we started talking about the zero waste plans with the concerned part in the ministry of environment. We always have plans and we criticize the laws, we were the first one talking about the waste and the incinerators.  We work on different aspects as environmental organization. We are trying to overcome many obstacles but the hardest one is the financial issue. We try to be self-sufficient but sometimes you need financial support but as we know the money is given only for the organization that are related to some political party.  As for complaining, it always depends on who you are complaining about if the judicial orientation is with or against them. |
| B12. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment and natural resources of this village?  | No, we used to have an iron factory but it's closed now. And we used to have the "Gazkhanet" what really encouraged me to invest in the environment sector is the "Gazkhanet".  Today they are available but more organized they don't preserve gas.  Now IPT is working on renewal energy and is eco-friendly.  We don't have high waves but surely we have waves, we have floods when there's much rains.  |

| <b>B13.</b> How do you describe the fishing activities in this area (probe what fishing activities are there? How do they fish? Where do they fish?)?                                    | Fishing is active because we have 3 ports (Jbeil, Amchit and Barbara) They don't use materials that are against law. The fishermen of our city are responsible and they love the environment, they don't go deep into the sea because their boats are simple and small. |
|--|---|
| B14. From your experience, who are the people involved in fishing in this area? In what types?  (Note to interviewer: please probe into artisanal/traditional, commercial, recreational) | They are few fishermen that only have this as a job most of them have a second job as initial income. They depend on both for living.   |
| B15. Approximately, how many fishermen are there in this village (as a livelihood or as a recreational activity please specify)?   | No idea I prefer to ask Hassan Rizk or ask the fishermen for more accurate information.   |
| <b>B16.</b> Is fishing properly managed? (what are the issues?)  | Yes, fishing is managed properly because the fishermen are educated and they maintain the culture of fishing. However, that's why I'm afraid from the negative impact of any activity on the sea.   |

## TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE - STAKEHOLDERS – HUMAN RIGHTS

| Name of village:<br>(Village/Caza/Block Number):                              | Dbaye   | Date of interview :  | 27/05/2019   |
|---|---|--|--|
| Name of Interviewee:  |   |  |  |
| Gender of Interviewee   | Female  |  |  |
| Position of Interviewee   | Founder and CEO of Joe B  | randing and 50/50 Organizati   | on   |
| Name of interviewer :   | Marguerite Nassif   |  |  |
| Notes   | Please introduce the oil drilling a opportunity for questions and are   | activities using the BIDs and posters and  | d give the participants an   |
|   | HUMAN RIGHTS AND VULNI  | RABLE GROUPS   |  |
|   | B. DEMOGRAP   | HICS   |  |
| A.1.What is your name?  |   |  |  |
| A2.Are you from this village?   | Yes, I'm from Dbayeh. I was born in Zouk el Khrab   |  |  |
| A2.1 How long have you been residing in this village?                         | I've lived my childhood years in Dbayeh (for about 12 years), then this region became industrial so my parents decided to relocate to a house in Adonis, due to the massive greenery and nature unlike its state now. Then, I came back and rented an office in Dbayeh since I believe it's a practical middle way spot for everything. |  |  |
| A3. How big is the village?   | I have no accurate knowledge of the region's area, but i don't think it's bigger than 5 kilometres.   |  |  |
|   | B. AREA OF INTEREST   |  |  |
| B1. What is the objective of your organization and who are the beneficiaries? | We have connections with compaining, catering companies at We aim to help them advertise company we work with, dediction will eat, since it has a collect Furthermore, it is a Lebanese we try our hardest to provide the it will definitely benefit from drilling operations should prove region, especially because it's              | e their services. For example ates all its concern to the kind ctive catering services in uncompany that works between them with all advertising and not them. On another level, I wide more job opportunities | nain focus is our clients. e, there's a big catering s of food people eat and iversities, schools, etc. Lebanon and Dubai, so narketing services, since suppose that these oil |

| B2. Please briefly describe the demographics of Lebanon: | h. Total Population i. Density                          | According to the latest UN statistics, there are about six million people living in Lebanon (four and a half million Lebanese plus one million and a half Syrian and Palestinian refugees).  About six million people.  |
|--|---|---|
|  | j. Religious Groups                                     | Lebanon is divided into 18 confessions (50% Christians and 50% Muslims), represented partially in the Parliamentary and spread throughout all the Lebanese regions. There's no doubt that some communities are dominated by a certain confession more than the other due to a specific population density. The 18 confessions include: Shiites, Sunnis, Allawi, Druze, Maronites, Greek Orthodox, Greek Catholic, Armenian Orthodox, Armenian Catholic, Latin, Assyrian and the list goes on. |
|  | k. Diaspora   | According to recent statistics, the number of Lebanese people living abroad is estimated to be around 18 million distributed all over the world. The highest number is in Brazil (8 million people), and there are many Lebanese dispersed in Venezuela, Australia, America, France. However, some people contradict my knowledge and say that there are only 12 million people living abroad.  |
|  | l. Lebanese Civil War refugees<br>and displaced persons | Normally, developed countries always aspire to achieve progress and elevate their countries' conditions by benefitting from every refugee   |

| m. Immigrants and Ethnic Groups (including refugees)  n. Any others?  n. Any others?  The living standards of Lebanese people and the which is amounted to 680,000 L.L is not logical and enough for livelihood especially for fresh graduates. I was once watching a reportage that displayed the poor lives of Lebanese people and this is a  | life expectancy?  B3.b. In this community in specific? | serious deplorable issue that should be tak consider myself from the middle class of the level of poverty my country's enduring some are lived of poverty my country's enduring some should prioritize enhancing the else our country will drown in illegal acts level (Not asked)  Firstly and most importantly, the main issue | en into consideration. Personally, I can he society, but I cannot truly accept the o I believe that operations like the oil living standards of Lebanese people, or ike crimes.  |
|---|--|--|--|
| country is trying to find solutions but sadly nothing is accomplished, since one of the priorities is to consider our capacity regarding the increasing number of refugees every year. We can employ them as labour force to benefit them and our country equally and maintain our systematic social, political and economic structure.  According to a recent statistic also, most of emigrants were Christians, but I'm really not sure whether this is credible enough. What I know is that both Christian and Muslims are emigrating and residing in different foreign countries.  No, I guess those aforementioned are |  | of people are living under the poverty line, which is amounted to 680,000 L.L is respecially for fresh graduates. I was once   | in Lebanon.  e extremely unacceptable, in which 40% In addition to that, the minimum wage not logical and enough for livelihood watching a reportage that displayed the  |
| they have been living in Lebanon since birth for more than 70 years and some even died in our lands; they might be somehow Lebanese more than the   |  | Groups (including refugees)  | birth for more than 70 years and some even died in our lands; they might be somehow Lebanese more than the Lebanese people themselves. Our country is trying to find solutions but sadly nothing is accomplished, since one of the priorities is to consider our capacity regarding the increasing number of refugees every year. We can employ them as labour force to benefit them and our country equally and maintain our systematic social, political and economic structure.  According to a recent statistic also, most of emigrants were Christians, but I'm really not sure whether this is credible enough. What I know is that both Christian and Muslims are emigrating and residing in different foreign countries.  No, I guess those aforementioned are |

cross the sea and the mountain in the same day and this country comprises Christians and Muslims living together with no specific estimated number of each. Thus, nobody knows his true identity, but discussion should be done in this regard. It's commonly known that Muslims are greater in number than Christians (60% Muslims and 30% Christians) and this is unlike the case few years ago. However, our main concern Lebanon becomes a pure Muslim country, noting that Lebanese Muslims are more open-minded than other Arab countries, but we shouldn't keep on mentioning religious beliefs when asked about identities, although we don't know who we really are. Some call us Phoenicians, others claim us as Arabs, but honestly we don't resemble other Muslim Arabs, we have no unique identity! That adds up to the reason we don't have a unified history book. Thirdly, the confessionals is increasing and spreading day by day in our country and on it we are basing our political distributions of politicians who consecrate the principle of confessions in the government. Fourthly, Lebanon is divided into two parts, in which 60% of Lebanese people belong to different political parties, while the other 20% choose to remain silent and the other 20% wants and strives to make a change, but unfortunately it's extremely difficult for this small number of people to produce any change for the sake of Lebanon and especially because Lebanon is a politicized country.

The most vulnerable category in all our communities is the woman. This latter lags behind and lacks all her basic rights. The law is generally equitable, but considering women as a whole their rights are not fully granted and applied since a male mentality is still taking over our country. For example, If you refer to the Personal Status Law (divorce, marriage, etc) you realize that women's rights are not taken into consideration and are very depreciated, in terms of all lawful applied rights and laws. We are demanding a women quota that was applied in 128 countries in the world, since the UN decided to contribute in activating women's role in the society by dedicating 30% of seats in the Parliament for women. However the problem is that this law is not being implemented in Lebanon and women are still incapable of running for presidency, taking over a position in a party. We as women have been suffering through Women in front and 50/50 organizations to help women reach decision making posts. Hence, a woman is still considered as the weakest link in our society although some small amendments and improvements are detected, but we still need plenty of time. There's no doubt we scored a leap, when a woman was employed as the Minister of the interior, but yet this is not enough to activate women's roles in general. A Lebanese woman is fully educated and involved in all fields and she desires to enroll in different sectors and jobs. We are really in need of equality between men and women and of appreciation for women's outstanding potentials and capacities. These problems will only be solved through righteous laws and codes.

**B5.** Who are the vulnerable groups in this community/area?

Interviewer: Are women the only vulnerable category in your society? Lebanese Youths can also be included in this category since they are not really granted important roles in terms of elections. We are calling for lowering the voting age to 18 instead of 21 and motivating fresh graduates to run for the elections in order to increase youth's participation and to tackle the accountability issue occurring in Lebanon. Moreover, There exist in Dbayeh a large number of Palestinian camps, who themselves are considered as a vulnerable party since they came to our country many years ago and we still haven't found adequate health conditions that suit them. Thus, they are considered as excluded people we can employ as labour force to benefit them and our country equally and maintain our systematic social, political and economic structure.

**B6.** What are the biggest issues faced by the vulnerable groups?

The first problem is the unavailability of job opportunities, the shortage of decision making positions, and the insufficiency of project utilization and before I forget I'd like to add as well unsupported people to the vulnerable people list, since if one does not belong to a specific political party he's surely considered as a marginalized person. The laws in Lebanon alone don't do justice to the citizens if they're not well supported by an important politician. The problems aforementioned also apply

|   | to the unsupported people, who consequently won't find job opportunities nor will they live similar to other people's lives.  |
|---|---|
| B7. In what ways does your organization support vulnerable groups in this community?  | The main objective of our organization is to support women, since we believe that Lebanese women should be supported and encouraged and in order to amend all prejudicial laws against women, we decided to increase the number of women in the Parliament. We took this decision since the Parliament is a place where law-making is being done, so if 40 women (according to the quota 30% of women) took part as a bloc, they will definitely work hand by hand to score a change regarding the unjust laws and regulations. We work with women to shed the lights on their desire to occupy political positions and debates against men and enroll in business affairs and show up on social media so we eliminate the inequality spread between these two genders. We were able to increase the number of female candidates in the Parliament from 12 candidates in 2019 to 113 candidates in 2018. This situation formed pressure on parties, political decisions with the objective of accepting women in political departments and in everything, since women are ready to take off and work sincerely and professionally more than males. Hopefully we won't stop here we're aiming for more and more progress in all different fields and we're calling for our rights.   |
| <b>B8.</b> How do you describe the state of human rights in this community?   | Woman's right is part of human rights and in my opinion it's extremely unacceptable and bad, since in Lebanon unfortunately the law doesn't apply on all  |
| (Note to interviewer: please probe into torture, political detentions, limitations on freedom of speech, abuse and discrimination cases, freedom of religion, voting rights, internet restrictions etc) | people, but on those who like to follow rules. Laws will be meaningless when political interventions appear, so if any citizen breaks the law there consecutively won't be any human rights present still. We cannot also neglect the dire situation refugees are living in Lebanon; it's absolutely true that they are causing us problems but remaining inactive with no solutions won't lead us to any relieve (Palestinians have been since 70 years in Lebanon and no draft solutions were made).  |
| <b>B9.a.</b> What types of human rights violations are committed most often in this community?  | Interviewer: If we tackled specifically subjects like political arrests, torture, limitations imposed on freedom of expression, cases of ill-treatments, discrimination and inequality between males and females in a Patriarchal society like ours, religious freedom in a confessionalism society, amending voting rights, internet issues and others, how would you describe these violations?  Look I'll summarize everything in one comprehended sentence; If we proceeded like that throughout the ten upcoming years, we'll become the most country that suppresses freedoms in all the Arab countries. We used to say that Lebanon is the only Arab country that is Democratic, but we no longer are since we don't have freedom of expression or freedom of action, although the Constitution enshrined these rights without any restrictions and prerequisites. Nobody has the right to prohibit me from expressing my thoughts and ideas on any kind of social and mass media. As for the personal freedom, there still exist some rules in Lebanon that ban women from wearing shorts and LGBT from expressing their tendencies different other. Nobody is willing to stay in Lebanon anymore, because of the lack of freedom, stability and consistency. As for the Internet, we cannot always blame people who express themselves on social media ( for example the one who |

|   | mocked and cursed the Patriarch) since more abusive content is being displayed on TVs and radios and are not being judged and charged in return.   |
|---|--|
| <b>B9.b.</b> Against whom?  |  |
|   | Against people who commit a certain crime or violation.  |
| B9.c. By whom? And why?   | That's because of the politicization and decadence spread in our country, since those people (politicians) have no limits and they are surpassing the laws and feeling relieved in their comfort zone and are not willing to share Lebanon with anyone else. They endorse confessionalism and policy of intimidation with no readiness to commit change and development.   |
| B10. In what ways does your association protect human rights in this community? | Since our main objective is woman's rights, we usually call for equality at all levels and equality between a man and a woman anywhere. A woman has the full rights to be ambitious and reach her goals in her country or abroad, enroll in a career similarly to men. A woman should be working and should be financially stable and independent; she can help her husband in all financial fees since partnership is a must and since one part cannot accomplish everything alone. A man should be aware by this time.  Interviewer: Are you organizing awareness campaigns?  Yes, of course we organize awareness campaigns in all areas especially in rural areas. It's true that men were raised with this mentality that they are the providers and breadwinner but that's no longer the case in our days now, since women have their full rights and are capable of achieving a career and benefitting you in their turn. I believe that a woman being financially stable and independent is a crucial topic and we're sustaining it through several plans and programs we're working on, so women be enjoying all their rights like giving their Lebanese nationality to their kids and husband, while today many are providing explanations concerning this regard in hopes of enhancing this situation. Secondly we have all issues related to the civil status for instance in case of divorce, a woman can only have the maternity right until breast-feeding. This law is so shameful and deplorable since we're classifying women as robots that produce milk. These laws should be thrown away and replaced as soon as possible!  Interviewer: So you were telling me that your organization 50/50 is working on these laws and on presenting submissions to the Parliament?  Yes as aforementioned our main objective in the time is to increase the number of female members in the Parliament, but at the same time we're working with other organizations to support all these laws. Six women already reached the Parliament but if there's a possibility 40 women can enroll in political activities that |

|   | Interviewer: Are you working also on this issue (violence against women) in  |
|---|--|
|   | presenting it to the Law?  |
|   | Yes exactly we're supporting such issues and we're helping in researches and drafts.   |
|   | draits.  |
| <b>B11.a.</b> Are there any other local organization engaged in similar activities in this village? | I don't think there's a similar organization in this region working on our issue "Women in Politics", but we from our side are indirectly supporting other organizations targeting other women problems. With all modesty I don't think anyone in Lebanon is working in the issue we're involved in. |
| B11.b. What are their roles exactly?  | (Not asked)  |
|   | The first barrier we face is funding, in which we seek to ensure funds from  |
|   | international communities since unfortunately it's extremely hard to be provided   |
|   | with funds locally especially for us. That's due to their concern in funding one   |
|   | woman and not the other, although we work globally with all the women in   |
|   | Lebanon and in all regions regardless of their political affiliation.  |
|   | <b>Interviewer:</b> Are there any laws you encounter that annoy or hinder your journey   |
|   | and progress?  |
|   | The presence of incompetent politicians hinder our way since those who have  |
|   | patriarchal mindsets denounce women and they keep on repeating the same old  |
|   | lame sentence that men are feeling they should call for their rights again as well   |
|   | (sarcastically). For example, before adopting Ratio Legis they were still not sure   |
| B12.What barriers exist for you/ and  | according to which Law they should follow, meanwhile we were following the majority law. However, we took the initiative and did a simulation to clarify and   |
| all organizations that work in this   | help them in choosing a quota and how to apply it and we worked on studies and   |
| field?  | surveys and sadly the Law was implemented and our quota was ignored.   |
| (Note to interviewer: Please probe into   | Interviewer: Do religions and confessions interfere in such issues?  |
| laws, policies, social norms or beliefs, government roles/responsibilities, access                  | Definitely! The major obstacle is the religious references and 80% of the  |
| to resources, power of decision making)   | politicians' mindsets are patriarchal, so they blame religion for not involving  |
|   | women in decision making positions but in fact religion never mentioned such   |
|   | information. On the contrary, religion grants women all their rights and laws and  |
|   | empowers them to participate in everything similarly like men do.  |
|   | <b>Interviewer:</b> Did you face any problems concerning social media and television   |
|   | programs that showed contempt concerning the women's case?   |
|   | Yes, we definitely did since we allocated budgets for women to show up on media  |
|   | and despite that before the elections in few days we faced many problems, since  |
|   | some TVs didn't accept displaying some women due to their political affiliations.  |
|   | No doubt that the elections' fees were very high and women in Lebanon are not that   |
|   | financed like men due to many reasons including the early start of men in work   |
|   | fields (unlike women) and the hereditary law that gives heirs to men and deprives  |
|   | women. Furthermore, women should acquire the knowledge of organizing   |
|   | fundraisings and financing strategies.   |
|   | C. ENVIRONMENT AND NATURAL RESOURCE USE  |

| C1.What are the natural resources (both offshore and onshore) available in this village?  | There was a coastal sea in Dbayeh, but unfortunately part of it was stolen during the War and there's no longer a tidy public beach in our region. During my childhood years, my family and I used to go to Dbayeh Sea where we used to collect pebbles and seashells, but sadly that's not the case now; buildings and factories were built on the sea. |
|---|--|
| C2.1. Who are the parties managing those natural resources?   | The parties managing those natural resources are six to eight people or categories who are generally politicians managing and operating everything in Lebanon that lies behind it useful purposes and financial benefits.  |
| C2.2. who are the ones who make use of them?  |  |
| (Note to interviewer: please probe into availability of seashell and sea worm collectors, sand extraction, salt harvesting)   | (Not asked)  |
| C3.From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment and natural resources of this village? | There are numerous factories in our region (food and beverage companies, sweets companies, brimstone companies, 7up Company, Abbi Lamaa 'steel' companies, etc).   |
| C3.a. If yes, how is your business impacted? Please describe  | I know that the municipality is handling this subject and we're generally better than other regions. However, all of us aim to contribute in waste segregation.  Interviewer: These actions are not usually affecting your businesses negatively, right?  No, not at all.  |

## TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE - STAKEHOLDERS - CULTURAL HERITAGE

| Name of village:<br>(Village/Caza/Block Number):  | Jbeil, Block 4, Cluster 3.   | Date of interview :           | 05/29/2019              |
|---|--|-------------------------------|-------------------------|
| Name of Interviewee:  |  |                               |                         |
| Gender of Interviewee   | Female.  |                               |                         |
| Position of Interviewee   | Site Manager.  |                               |                         |
| Name of interviewer :   | Antonio Chitti.  |                               |                         |
| Notes   | Please introduce the oil drilling activities using opportunity for questions and answers | ng the BIDs and posters and g | ive the participants an |
| STAI  | STAKEHOLDER ENGAGEMENT AND IMPACT ASSESSMENT   |                               |                         |
| Q1. Please introduce the oil drilling activities using the BIDs and posters. Once completed give the participants an opportunity for questions and you provide an answer to their questions as far as possible. If you cannot answer then please take the stakeholders contact details and tell them you will get the answer and get back in contact as soon as possible. | -  |                               |                         |
| Q2. Now, do you have questions?   | -  |                               |                         |
| CULTURAL HERITAGE   |  |                               |                         |
|   | A. DEMOGRAPHICS  |                               |                         |
| A1. What is your name?  |  |                               |                         |
| A2. Are you from this village?  | No, i am not from Jbeil.   |                               |                         |
| <b>A2.1</b> How long have you been residing in this village?  | Not Asked  |                               |                         |
| B. AREA OF INTEREST   |  |                               |                         |

| B1. Please can you tell us about the cultural site that you manage   | I am the responsible of the cultural heritage in Jbeil. I am the site manager of north mount Lebanon. We are always organizing conferences, awareness campaigns and cultural and educational projects.   |
|--|--|
| <b>B1.1. What is it?</b> (brief summary)   | We have Jbeil, Anfeh, BatrounWe have a cultural heritage that is related to your project. When I say Jbeil, I mean all the city not only the castle or the Old Market. There is also all the old city of Batroun and its waterfront. There are also a lot of ancient monuments in Anfeh. |
| B1.2. Where it is specifically located (georeferenced)?  | Jbeil, Batroun and Anfeh.  |
| B1.3. Is it on the sea shore?  | Yes, we have a lot of ancient heritage on the coastline of cities and villages and we also have some in the sea.   |
| B2. Why is this site important?  | The regions I mentioned are so important because of the diverse cultures they offer. People lived and worked for thousands of years in these areas. Several changes happened there.  |
| B3. When did it become a managed site?   | Since the "Directorate General of Antiquities" was established. Since the first day. After Independence Day. Before, when we were under the French mandate, people were working a little on excavation. There was a Law for preserving Antiquities since the 30's.                       |
| B4. In your opinion, what is the current condition of the site (good, in decline, poor etc)? If in decline or poor, why? | I think their condition is stable. We have employees and guards who work perfectly plus we clean everything.   |
| B5. Does the site receive any kind of funding (national or international)?   | The American Embassy offers cultural funds. We always participate. Our reports are so accurate and transparent. We won many times even though thousands of countries have participated. [Thousands in a higher voice] There is also State funding.                                       |
| <b>B6.</b> How many staff does it employ?  | A lot. No maybe not a lot. I don't know. [Both laughed]  |
| B7. Do you undertake any restoration activities?   | We don't do the actual restoration. We say how things must be done and we supervise workers. We don't have equipment.  |
| B8. In general, who visits the site (tourists/Lebanese?)   | Lebanese and tourists from all around the world. School and university students visit the sites a lot.   |
| B9. When is the busiest season?  | Spring. Interviewer: Are they Lebanese or foreigners? In what time do tourists usually visit the sites? Europeans usually come in Spring.  |

|   | Interviewer: Yeah but when the place is crowded, would the crowed be Lebanese or foreigners? Lebanese and Arab tourists come during the whole year. But European tourists come in Spring.  |
|---|--|
| <b>B10.</b> How much does it cost to enter the site?  | Not so much 5,000 for Jbeil, 8,000 for Baalbek (Baalbek's site is so big). This so cheap because when we travel to other countries, all entrances are for at least 20 USD. When I visited the Twin Towers, I paid 15 USD so I can go in the elevator for like half a minute. [Both laughed]. It's their right to take so much money. However, I think we are somehow underrated. |
| <b>B10.</b> a. Is there a different tariff for Lebanese?  | Yes, students can enter for free. Jbeil inhabitants enter to Jbeil's castle for free, Baalbaki people also don't pay anything to enter to the temples they have.   |
| B10. b. Do you offer tour packages?   | Yes, we have the "Journée du patrimoine" where everything is for free for everyone. We do a lot of activities, so people don't forget the importance of this cultural heritage. We can make a cultural concert or a play for free.   |
| <b>B11.</b> Do tourists stay overnight locally in hotels or are they passing through?   | Yes. There is local tourism. When people go to Jbeil, they usually sleep there for a night.  |
| <b>B12.</b> Do you encounter any issues with the site? If so what are they? Are they seasonal?  | Yes, I can say that there can be cases were people break things, write on walls (Graffiti) or jump on fences. All these acts are manmade.  Interviewer: Are there anything related to nature? Anything seasonal maybe?  No, but if we have a very high temperature, the location can be burned.  Sometimes, people throw cigarettes and the place is burned.                     |
| <b>B13.</b> What are the benefits for the community you are in for having this cultural heritage site nearby  | There are lots of benefits. Some can lease their empty apartments, and some have restaurants. Hospitality at its best. [They laughed]  |
| <b>B14.</b> Do you know any other cultural heritage sites nearby in the coastal areas or in the sea?  | All of them.  Interviewer: Do you know if there anything by the beach?  Yes, Anfeh is by the beach, Jbeil and Batroun too. Tyr is by the beach.  Everything is by the beach. [Both laughed].  C. Environment and Natural Resource Use  |
| C1. What are the natural resources (both offshore and onshore) available in this village?   | Yes, in Anfeh there are a lot of seafarers. But in the Jbeil, the natural resource is tourism. However, there are a lot of Fishermen.  |
| C2.1. Who are the parties managing those natural resources?   | The Municipality and few specialized committees.   |
| C2.2. who are the ones who make use of them?  (Note to interviewer: please probe into availability of seashell and sea worm collectors, sand extraction, salt harvesting) | Fishermen and people living there.   |

| C3.a. Please describe briefly the Climate  | It's so hot and humid. It rains a lot in winter.  |
|--|---|
| C3.b. Please describe briefly the Air quality  | Cleaner than Beirut. We never spot this black cloud of smoke on top of our heads. In Jbeil and in Tyr, the air is so clean. Everything I tell you about Jbeil can be applied to Tyr. [Serious tone] |
| C3.c. Please describe briefly the Water quality  | Very good condition. So clean and transparent. In 2006, we suffered from oil spill, but we managed to clean that out.   |
| C4.1. Are there any local organization engaged in environmental matters in this village?   | I think there is, but I personally don't know any.  |
| C4.2. What are their roles exactly?  | Maybe they clean the sea.   |
| C5. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment and natural resources of this village? | ☐ Yes ☒ No  We don't have big industries. We only have the Sanita industry for tissues.  There are no chemicals. Big industries are nearer to Tripoli.  |
| C.5.a. If yes, how is your business impacted? Please describe  | -   |

#### **Additional Notes:**

-I want to say that pollution in our sea comes essentially from ships. We found a lot of plastic bags. We should write a book to the Ministry of Environment to say that a lot of ships are not following international regulations and laws.

Moreover, I want to add that we already talked to Total which agreed that there will be one archeologist on board of the ship. -Phoenicians were known to be the strongest in trade. We have found a lot of shipwrecks in the sea with a lot of Bronze ancient Antiquities so an archeologist om board is a must have. We are famous for the trade we had. All the coastline from North to South is rich in cultural heritage.

-We talked to "ARD" (رُخن) company that is conducting an environmental impact assessment. We should be included from the beginning till the end. Our coastline is highly archeological. The park lines on it are also extremely archeological. We are affected by all your sequence of actions.

We need archeological teams on the coastline and maybe few experts on board. For us it's a necessity.

We are present, UNESCO encourages us, and all NGOs are concerned about the future of our beach. If by chance we find anything, you will have to change the lines, or you will excavate, or you will extract, or you will bring an archeological team with experts. This is very essential for the image of Total. Are they willing to destroy our archeology?

They should help us shed light on any potential findings (maybe little museums, awareness campaigns).

- -We can have many conversations with Total.
- -On the 24th and 25th of October, there will be an international conference in the UNESCO in Beirut with NGOs and the most important archeologist divers who already experienced this in other countries (Egypt, Greece, Turkey, Cyprus). But this conference is in October and you are telling me you are starting in September. How come?

-What are your plans? Will we be able to read your mapping plan and understand it? if anyone could give us a copy it would be amazing. We want to check the typography. If total gave us a CD with pictures but we can't read anything, it will be useless. There should be a report and something accessible and easy. These are the assessments we need.

Stakeholder talked a lot in the introduction. She didn't give Antonio any time to explain. He advised her to send the company an email. She also asked him if he could provide her with a list of people who are important from InfoPro or RSK or Dar.

#### TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON **KEY INFORMANT INTERVIEW GUIDE - STAKEHOLDERS – SAFETY AND SECURITY** Name of village: Batroun Block 4 Date of interview: 27/05/2019 (Village/Caza/Block Number): Name of Interviewee: Gender of Interviewee Male. **Position of Interviewee** Emergency doctor. Medicine specialist. Safety manager. Antonio Chitti Name of interviewer: Please introduce the oil drilling activities using the BIDs and posters and give the participants an Notes opportunity for questions and answers STAKEHOLDER ENGAGEMENT AND IMPACT ASSESSMENT **Q1.** Please introduce the oil drilling activities using the BIDs and posters. Once completed give the participants an opportunity for questions and you provide an answer to their questions as far as possible. If you cannot answer then please take the stakeholders contact details and tell them you will get the answer and get back in contact as soon as possible. 1- I want to say that I don't tryst anyone. Total is an international company I agree, but who is responsible from the Lebanese government in case something bad happens? There should be a Lebanese expert on board that represents Lebanon and the Ministry of Energy. He should examine Q2. Now, do you have questions? whether waste is being recycled in a proper manner or no. 2- Where will waste go after it is put on the coastline?

3- I am afraid there will be spills in the sea. I know you said there is a one in a million chance. But my question is, will they tell us if it happens? 4- I am asking the government to put Lebanese experts to make regular inspections. 5- Does the Lebanese government have any authority? 6- Will Lebanese workers get paid? 7- Will they ask NGOs for any consultations? 8- Did they really examine and study earthquakes in our area? **PUBLIC SAFETY AND SECURITY** C. DEMOGRAPHICS A.1. What is your name? Yes. A2. Are you from this village? A2.1 How long have you been Ever Since I was born. I'm 51 years old now. residing in this village? **B. AREA OF INTEREST B1.** How do you evaluate the general We are one of the calmest communities. Many local NGOs cooperate to ensure security and stability in this stability and seciruty. We are so cool. [small laugh] community? B2. Who are the main players in public safety issues (e.g. fire, earthquake, a. How many centers are available? Not Asked coastal flood, maritime accidents, disasters, emergency medical services...)? b. How fast and qualified is aid normally No one in Lebanon. I'm a field administered by those players? Not Asked emergency doctor and disaster management and medicine specialist working in the safety field with many companies one of which is Sukleen. I provide trainings in occupational safety and in risk assessment. I can tell when is there a need for control measures to minimize c. Are there fire engines, ambulances the risks or to eliminate it. We Not Asked and hospitals in this village? have five categories to control any risks which are elimination, substitution, engineering control, administration control, or by using personal protective

equipment. Unfortunately,

|   | ,  |
|---|--|
| here in Lebanon we work as a  |  |
| reaction and not as prevention.   |  |
| No one works to assure public   |  |
| safety. Nobody cares.   |  |
| B3.1. Who protects the maritime boundaries and natural resources of the republic?   | We don't have anything as coast guards, we do have special forces but I don't know what their job description is.  We don't even have much maritime resources.   |
| B3.2. Who protects the offshore resources in this village?  | Maybe several NGOs like "Green peace". During the war, in 2006, there happened to be leakage in Jiyeh, I participated as a doctor for maritime rescue with the Lebanese Civil Defense. The fishing culture was at risk, but we managed to find fast solutions. |
| B3.a. How many coastal agents/units are there?  | I know that there isn't many but I'm not sure.   |
| B3.b. Where are they located?   | Question not asked.  |
| <b>B4.1.</b> Who provides the law enforcement in the village?   | Military, Security forces. We have several checkpoints.  |
| B4.2. What is the role of each?   | I don't know.  |
| <b>B4.a.</b> How do you estimate the level of crime in this village?  | I don't know but I told you before, we have a very calm region.  |
| B4.b. What types of crimes/excesses of laws and order are committed most often in this village and why?  B4.c. What categories of population commit crimes/excesses of laws and order most often and why? | Maybe we have few scaffolding violations. But nothing serious.  No one.  |
| B4.d. Characterize local police authorities (performance of duties, competence, professionalism, sufficiency of equipment, etc.)?   | Our village is like Lebanese villages. We have Security forces and Municipality Police.  In general, they all work properly.   |

| B5. From your experience, what are the current biggest threats on this community public safety and security?   | The biggest threat concerning public safety may be frequent car accidents. On the social side, drugs are being widely spread. (All over Lebanon, not just Batroun.) Best part is that we don't have crimes.   |  |
|--|---|--|
| B6.1. In what ways does your organization promote public safety and security?  | I am broadcasted on national and international TVs regularly. I give so many interviews. I have diversity of topics I talk about. Generally, my main topics are public safety and security like car accidents, drugs side effects on health, the excessive use of cellphones, all things related to plastic and so on I organize trainings. I studied in Geneva "Disaster management". They said that: 80% of: You should work on preparing society. 10% is what did you plan to do for it. 5%/10% is recovery. What I am doing now in my NGO is: -Cooperate with other NGOsI provide trainings concerning firefighting and first aid. (Everything is for free)I also organize Evacuation training for companiesI teach chemical safety, petroleum safety, construction safety and industrial |  |
| B6.2. What types of interventions your organization makes in this community?   | safety.  Social.  |  |
| B7.1. Are there any other local organization engaged in safety and security matters in this village?   | No.   |  |
| B7.2. What are their roles exactly?  | Not Asked   |  |
| B8. What barriers exist for you/ and all organizations that work in the public safety and security?  |   |  |
| (Note to interviewer: Please probe into laws, policies, social norms or beliefs, government roles/responsibilities, access to resources, power of decision making) | Not enough money.   |  |
|  | C. ENVIRONMENT AND NATURAL RESOURCE USE   |  |
| C1. What are the natural resources (both offshore and onshore) available in this village?  | We have several beautiful water wells. (Balou Balaa, Tannourine, al-Joz river).  People go there for tourism (they are also considered good places for hiking – Beautiful views).   |  |
| C2.1. Who are the parties managing those natural resources?  | The State.  |  |
|  |   |  |

| C2.2. who are the ones who make use of them?  (Note to interviewer: please probe into availability of seashell and sea worm collectors, sand extraction, salt harvesting)  | Income goes to the Ministry of tourism. Maybe there is a local authority, but I honestly don't know.   |
|--|--|
| C3. From your experience, are there any industrial (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) which affect the environment and natural resources of this village? | To be fair enough i will tell you about our neighbor. Chekka. There is one industry for soil that pollutes air, sometimes we breath this polluted air because of wind. |
| C3.a. If yes, how is your business impacted? Please describe   | Not Asked  |

### **TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE - STAKEHOLDERS - MUNICIPALITY OFFICIALS** Municipality of Chekka **Location of Interview:** Date of the interview: 21-05-19 (Village/Caza/Block Number): **Block Four** Name of interviewee: Male Interviewee Gender: **Interviewee Position:** Head of Municipality Name of Interviewer: Wahib Izmiraghdi Please introduce the oil drilling activities using the BIDs and posters and give the participants an Notes opportunity for questions and answers THEME 1 - STAKEHOLDER ENGAGEMENT AND IMPACT ASSESSMENT Q1. What do you exactly know about Not asked the oil drilling operations which are going to take place in this area?

| Q2. Now, do you have questions?   |   |
|---|---|
|   | A. BACKGROUND   |
| A1. Please tell me briefly how long have you been head of/working with this municipality, and what is your current role?  | I've been the head of municipality since 1998.  |
| B. DEMOGRAP   | PHIC CHARACTERISTICS AND COMMUNITY STRUCTURE  |
| B1.a. Could you tell us about the population in your village:  What is the total number of inhabitants? (Note to interviewer: if possible please ask for distribution: percentages by gender and age groups ( 18, or youth vs. adults vs. elderly)) | I will only tell you about my village Chekka. There are all kinds of religions. There are around 12 religions in Chekka. The number of its inhabitants is 10,000 - 12,000. There are approximately 1,500 Syrians that bother us. [Slightly laughing]. We suffer from the problem of garbage. There are mostly liberal professions, company employees and school teachers. This is how the atmosphere is basically like in Chekka. In terms of sports, Chekka is a three-time champion in Volleyball in Lebanon. Sports are really important. We have sewers and water, but we suffer from neglect from the Establishment of Water. No problems arise. There are political parties. All is good.  Interviewer: How are they distributed according to age and gender?  The percentages by gender are almost equal. Men and women are equal here. Isn't that right Antoine?  Antoine: Yes but the percentage of females is slightly higher.  Interviewer: Is the percentage of youths higher than that of adults?  Not necessarily |
| <b>B1.b.</b> Who do you identify as vulnerable in your community?   | All the inhabitants of Chekka are vulnerable, because every person whom the State doesn't stand by his side is vulnerable.  |

| B1.c.1. Is there any cultural diversity?  | ⊠ Yes □ No   |
|---|--|
| B1.c.2. If yes, please describe what is the diversity?  (Note to interviewer: please identify who)  | There are military officers, doctors, university teachers, etc  Interviewer: When did the diversity first start in Chekka?  We can say that it exixts a long time ago and remains until now, isn't that right Antoine?  Antoine: Yes it started a long time ago.  Interviewer: Who Caused the natural flow of this diversity?  The diligence of the village's inhabitants and not nepotism because we have no one to help us.  |
| B1.d. Are there different religious beliefs in this village?  (Note to interviewer: please ask for percentages if possible)                     | Yes, I've already said that there are 12 religions. Some are big, some are not; it depends.  Interviewer: Are there any specific percentages for these religions?  We don't really have percentages, but first come the Maronites, the Orthodox, the Sunnis, the Catholics, and then the Shia Muslims and the Alawis.  Interviewer: Are the percentages equal?  No, we can say 60% are Maronites and 30% are Catholics and Orthodox, approximately, and the rest are Muslims and Shia Muslims. |
| B2.1. Who are the important leaders in the village?   | They are all the same in Chekka. All people are equal. This is how people think.   |
| B2.2. What are their roles and how decisions are made?  (Note to interviewer: please probe into mayors, religious figures, policemen, teachers) | The municipality and the municipal council.  Antoine: The Shura Council.   |
| C.  | SOCIAL SERVICES AND INFRASTRUCTURE   |
| C1. How many schools and universities are available in your village (specify primary/secondary etc)?  | There is one university and seven, or eight schools.  We also have a public school, a technical school and a nursery But they are all leaseholds.  |

| C2.1. Are you satisfied with the educational level of the inhabitants of this village?  | It is not bad. We have a kid that turned out to be an inventor.  That kid made an invention at a young age.  He's 20 years old.  I think he is even younger than 20 years old.   |
|---|--|
| C2.2. Who are the least vs. most educated/ skilled people in your village?  (Note to interviewer: please ask about profiles not names). | We don't have less educated people. The inhabitants of Chekka go to school. The least educated people are the Syrians refugees, but we offer them afternoon-schools.   |
| C3. In your opinion, what problems do the education system in your community face?  | We don't have schools. They are all leaseholds, and the school consists of one room here and another one there. There is literally nothing.  |
| C4.1. Which healthcare facilities are available in this village? And which type of care do they provide                                 | We built a municipal hospital, which is a first among all the Arab countries. It is 100% ready, and the building is complete, but it only lacks equipment. There are two dispensaries.  There is one that was fully-equipped and the hospital was built according to the general hospitals' specifications and we are now waiting for people to fund it. Maybe now, based on what you said previously, there should be a hospital on the shore line, because there is nothing on the coastline and Chekka did not have any hospital. |
| C4.2. And which type of care do they provide? (e.g. acute care, preventive, immunization etc.)?   | Not asked  |

| C5. What illnesses are most prevalent in your community?   | Like all people.   |
|--|--|
| C6.1. How would you describe the infrastructure and facilities serving this community?  (e.g. buildings, roads, power supplies, sanitation and waste management) | Good. Acceptable, but there is neglect from the Ministry of Energy. However, we have the newest and best projects in Lebanon.  |
| C6.2. What are the biggest problems in this regard?  | Neglect. Interviewer: By whom? Ministry of Energy and Water.   |
| B7.1. Which types of public transportation means are available in this village?  | We don't have public transportation here. We should have in order to be able to commute. We are on the coastline and public transportation benefits us and the whole coastline, but we do not have it. |
| B7.2. And do you have any traffic issues?  | Yes, a lot. Due to companies. We have cameras all around the village that are accurate and of high sensitivity and we do not face any problems in this regard.   |

| B8.1. Who provides the law enforcement in the village?   | In principle, it is the State and its agencies, as well as the municipality. Each from its own position, but they control everything and act as they wish.  Interviewer: What is the role of each of them?  Each does his job. The State Security Service takes care of State security, the Information Department takes care of information and the Investigation Department takes care of investigation.  We don't understand the State's agencies, we only know that as a municipality, we work within our legal scope and we sometimes seek the help of the Security Forces in major violations which we cannot take care of.  Each has its own position. |
|--|---|
| B8.2. And how do you estimate the level of crime in this village?  | We don't have crime.  Interviewer: The rate [He was interrupted].  The rate is extremely small. You can even say it is nonexistent.   |
| B9. Who are the main players in public safety issues ?  (e.g. fire, earthquake, coastal flood, maritime accidents) | We have an Emergency Committee within the municipality.   |
| B9.a. How many centers are available?  | Interviewer: Only one center? The Emergency one? The municipality has an Emergency Committee in cooperation with the UNDP, the existent companies and the clubs.  |
| B9.b. How fast and qualified is aid normally administered by those players?  | We hope that we won't use them, but in principle we haven't suffered from anything yet and we hope we won't.  |

| B9.c. Are there fire engines, ambulances and hospitals in this village?                               | No. We're building because they are all outside of Chekka. We resort to those in Batroun and Koura. However, in the future, with the hospital, everything will be complete.  |
|---|--|
| B10.1. What are the forms of communication used by people in your community?                          | Cars. Interviewer: In terms of social media. Facebook nowadays. Social media. [Antoine agreed].  |
| <b>B10.2.</b> And what problems connected with communication services are typical for your community? | In principle, it's all good. Right now, fiber optic cables are being deployed and it is going well. We are exposed to the sea and have no problem, and communication is available.   |
| <b>B11.1.</b> What are the historical and cultural sites available in your village?                   | There is a region called Tall Omran which was discovered recently. There are also global archeological groups that are coming. They have taken permission from the State and asked us about a region by the sea called Tall Mahran where Phoenician and Crusader archeological sites were found. |
| B11.2. Where are they located?  | Not asked  |

| B11.3. what traditions and customs still exist in your community?   | Holidays. Seasonal ones. Seasonal and religious holidays, weddings. We are still a community that participates in every event.   |  |  |  |  |
|---|--|--|--|--|--|
|   | D. ECONOMY AND LIVELIHOOD  |  |  |  |  |
| D1. What are the main economic drivers, or the main work sectors available in this village?  (Note to interviewer: please try to ask for percentages) | We have industrial enterprises, cement companies and a big industrial region in Chekka comprising of many handymen.  Interviewer: So, does industry constitute a big percentage?  Industry constitutes a really good percentage. Agriculture was fundamentally present, but now it no longer exists.  Interviewer: So, is the percentage of agriculture very low?  The percentage of agriculture is extremely low. |  |  |  |  |
| D2. What is the percentage of formal vs. informal businesses in this village?   | There are no longer informal businesses. There are few of them, which existed in the past. Now, we are asking all businesses to give us their [incomprehensible] since the State is requesting them.   |  |  |  |  |
| D3.1. What are specifically the businesses available on the shore line?   | Cement companies.  |  |  |  |  |

| D3.2. And who are engaged in those businesses?  (Note to interviewer: please ask for profiles not names) | Interviewer: Is someone engaged in those businesses or is their management and everything else private?  Private management.  |
|--|---|
| D4.1. Do you have any port in this village?  |   |
| D4.2. If yes, by whom it is managed? Used? and for what purposes?  | By fishermen. There is a Fishermen's Syndicate which the municipality take care of. Companies have their own port. A port for discharging and shipping goods. Interviewer: Is the companies' port used? Of course. Interviewer: For what purposes? For industrial and commercial purposes. It is considered a private port and not a public one.  |
| D5. What is the percentage of employed vs. unemployed individuals in this village?                       | The percentage of unemployed individuals is in principle not high. Around 20%, right? And 80% are doing well.  I don't think there is 20% because 20% [He was interrupted].  There are the new students.  The new students, I mean [He was interrupted].  Then, around 15%.  In the municipality, we always have new applications and we help a lot and provide jobs, so the unemployment rate is around 15%. |
| D6. What are the employment rates distributed across sectors?  | We have all sorts of sectors. Industry, intellect, new computers and law.  Interviewer: Are the employment rates higher in the public sector or in companies?  In the public sector.  |

| D7. What are the main reasons behind unemployment in your community?   | Lack of energy. Because if one wants to work, he has to work. This is the truth.  Interviewer: So, you said the reason for unemployment was inactivity.  Yes, in principle. [The second reason was not clear due to multiple people talking together]. |
|--|--|
| D8. Which section of the population is most affected by unemployment?  (graduates, young people, people in the right age to work, retired persons, women, men, people of what nationality, former military people, refugees, etc.) | Graduates who have certificates. [The rest is inaudible].  |
| D9.1. How do you describe the tourism in your village?   | Maritime tourism is good.  |
| D9.2. What are the main touristic sites and activities? Where are they? Do you have any coastal or marine tourism?   | We have the sea. Interviewer: Is it close to this location? Look, the sea is in front of you. Interviewer: Is there any coastal tourism? No.   |
| D10. How dependent is this village on tourism/ marine tourism? Please describe.  | In principle, this region is beautiful during the summer, by the sea. Nothing more, nothing less. We don't have anything else.   |

| D11. What are the main issues in the village?  | The main issues? State services which the municipality is now providing. Interviewer: So, there is no support? No.  NVIRONMENT AND NATURAL RESOURCE USE   |  |  |  |  |  |
|--|---|--|--|--|--|--|
| E1. What are the natural resources available in this village?                            | Of course. We have maritime resources. We have the sea which the fishermen exploit.   |  |  |  |  |  |
| E2.1. Who are the parties managing those natural resources?                              | Interviewer: You were citing the available natural resources like fish. Yes, fish. There is the Fishermen's Syndicate. Interviewer: They are the prime beneficiary? They benefit from the resources. Interviewer: Are there other beneficiaries? Such as in collecting seashells, sand and gold mining [He was interrupted by the answer]. No, these are not allowed. |  |  |  |  |  |
| E3.a. Please describe briefly the climate  | It is normal. We have four seasons.   |  |  |  |  |  |
| E3.b. Please describe briefly the air quality  | Regardless of what is being said from lies and accusations about the atmosphere in Chekka, we have one of the cleanest air qualities here because we no longer have pollution. A proof of this is that we can both go out now and check.  |  |  |  |  |  |
| E3.c. Please describe briefly the water quality  | Very good. We are located at a lake. We provide water to Koura and Selaata from Chekka.   |  |  |  |  |  |
| E4.1. Are there any local organization engaged in environmental matters in this village? |   |  |  |  |  |  |

| E4.2. What are their roles exactly?   | Everything environmental. We have environmental things that date back for a certain time and that we work on with deliberation. We have a big association, not exactly an association. It derives from the municipality and the Civil Society.  |  |  |  |
|---|---|--|--|--|
| E5. Are there any industrial which affect the environment and natural resources of this village?  (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) | We have the company Wilco.  Interviewer: Are there any industrials that are airborne, or for example solid waste, noise, or anything else?  No, we have a company that produces chicken which is Wilco. It meets the legal requirements and works with the International Bank.  Interviewer: There aren't any industrials that affect the environment in general? No, there are the industrials of soil companies that are said to highly affect the environment. They are being well criticized, but not ours. Ours are on mountains that are not located here.  Interviewer: Are there any natural hazards such as earthquakes, floods?  Everything that happened during winter affected everyone, but thankfully we didn't suffer from anything. We have sewers that are always being treated before winter. |  |  |  |
| F. CLOSING  |   |  |  |  |
| F1. Do you have any question or issue that you would like to raise?   | As the Head of Municipality has already said, we want to know when it will happen. I have a house in Adma and I received a call from someone who wants to rent it. I asked how much money to demand in return, they told me that the Americans are renting houses. They are coming for the oil. So if they want to rent anything in Chekka they are more than welcome. We are ready to cooperate with them. We have restaurants and we are now building a big international sports playground. There is a possibility for us to be able to cooperate with them.   |  |  |  |
| F2. Are there any stakeholders that you may recommend us to also talk with?   | Yeah, why not. Go to a company. Talk with the head of a soil company. You can also talk with the owner of Wilco. Go to Narciss Azar. These are big companies which you can talk to. Anywhere you go in Chekka, you'll find someone that will respond to you.  |  |  |  |
| ADDITIONAL NOTES  |   |  |  |  |

The Head of the Municipality had to leave during the middle of the interview, and the Vice-Head continued in his place.

| TOTAL E&P LIBAN OFFSI   | ,                         |                | MITINI   | ICID A | LITY OFFICIALS      |
|---|---------------------------|----------------|----------|--------|---------------------|
| KEY INFORMANT INTERVIEW GUIDE - STAKEHOLDERS – MUNICIPALITY OFFICIALS |                           |                |          |        |                     |
| Location of Interview: (Village/Caza/Block Number):                   |                           | Date interview | of<br>w: | the    | Tuesday May 21 2019 |
| Name of interviewee:  |                           |                |          |        |                     |
| Interviewee Gender :  | Male                      |                |          |        |                     |
| Interviewee Position:   | Head of Mina Municipality |                |          |        |                     |
| Name of Interviewer:  | Wahib Ezmeraldi           |                |          |        |                     |

Notes

• Please introduce the oil drilling activities using the BIDs and posters and give the participants an opportunity for questions and answers

#### G. BACKGROUND

# A1. Please tell me briefly how long have you been head of/working with this municipality, and what is your current role?

I have been in this position for three years now. I am at the head of the municipality and at the head of the federation of the municipalities.

#### H. DEMOGRAPHIC CHARACTERISTICS AND COMMUNITY STRUCTURE

**B1.a.** Could you tell us about the population in your village:

What is the total number of inhabitants? (Note to interviewer: if possible please ask for distribution: percentages by gender and age groups (</> 18, or youth vs. adults vs. elderly))

The population size here in Tripoli is around 450,000 or 500,000 inhabitants. The community is made up of 80 percent Sunnite, 10 or 12 percent Alawite and 10 percent or less Christian. The unemployment rate in Tripoli is above 50 percent for both skilled and unskilled workers. The municipality is collaborating with NGOs, various donors from outside the area and with the special economic zone to conduct vocational trainings in an attempt to prepare workers to join the zone whenever it starts operating. And, people here have high hopes in the special economic zone since it will create thousands of job opportunities. For that reason, I said that the North coast should benefit from the oil drilling project. Nobody here will accept a project that will harm them environmentally without any benefit in return. Many investors already left the area due to the various political circumstances which increased the unemployment rate. I can tell you today that Tripoli is one of the safest towns in Lebanon. I know that from my experience and from my work in the field. So, I don't think anyone should worry about it. People won't ruin any project that they are benefiting from. Although Tripoli seems to be an extremist town, people from different religions are used to live with each other. Indeed, during the various circumstances (starting 1970) no church was demolished. Advertisements affected the region a lot, for that reason people here need job opportunities. We are working on changing the stereotypical image about Tripoli. We were able to work with Western embassies on improving the city's ranking from "red" to "orange" and there are still aspirations that the ranking will become "green" with time. In fact, the former are visiting Tripoli quite often and are showing interest in it. We are hoping that Tripoli will be a logistical point in the reconstruction process of Syria and Iraq. For that reason, we are working on improving and expanding the port here in Tripoli. People are eager for new job opportunities, therefore when you move the activity to Beirut they will be frustrated. People are feeling hopeful about the oil drilling project, so when you move the location to Beirut Tripoli won't expand.

-Interviewer: Do you have any idea about the age groups and their percentages here in Tripoli?

I am not that knowledgeable about statistics. Do you want the statistics of "Al Tebbaneh"? Because this is what I have now in hand.

-Interviewer: Preferably Tripoli in general.

|  | [The interviewee asked for help from a third party].   |
|--|--|
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| B1.b. Who do you identify as             |  |
| vulnerable in your community?            | Unemployed people are the vulnerable ones.   |
|  |  |
|  |  |
| B1.c.1. Is there any cultural diversity? | ⊠ Yes □ No   |
|  |  |
| B1.c.2. If yes, please describe          | Like any other country in the world or in Lebanon. Our universities are like the ones in Beirut. For instance, you find engineers and doctors as well as technicians and unemployed workers. |
| what is the diversity?                   |  |
| (Note to interviewer: please             | -Interviewer: What about touristic diversity ?   |
| identify who)                            | We have religious and cultural tourism here. Tripoli is one of the most affluent   |
|  | cities in the Mediterannean region after Cairo in the Mamluk civilization.   |
|  | Tourism in Tripoli is more culturally rather than leisurally.  |

| B1.d. Are there different religious beliefs in this village?  (Note to interviewer: please ask for percentages if possible)                     | Sure, we have Christians and Muslims.  -Interviewer: So, the percentages are as mentioned earlier?  Yes.  |
|---|---|
| <b>B2.1.</b> Who are the important leaders in the village?  | We have the prime minister Najib Mikati, the ministers Emile El Jeser, Mohammad Kebbara, Faysal Karami, Raya Al Hasan (she was responsible of the economic zone before becoming a minister), and for sure there are the municipality, chamber of commerce, Rachid Karami exhibition, and the port.  |
| B2.2. What are their roles and how decisions are made?  (Note to interviewer: please probe into mayors, religious figures, policemen, teachers) | Unfortunately, before it wasn't effective due to the conflicts amongst the different parties and the central government. For that reason, Tripoli used to be neglected. Nowadays, there are agreement and coherence with the central government, and the prime minister Saad Al Hariri is discussing various projects related to Tripoli. They are preparing a list of the projects that the city needs. And, we are hopeful that they will be able to accomplish all of them.  -Interviewer: How important decisions are being taken here in Tripoli?  It depends on the decision type. If it is on the local level, the municipality will take the decisions. If it is on the political level, then the government will take the decisions. |
| E. SOCIAL SERVICES A  | AND INFRASTRUCTURE  |
| C1. How many schools and universities are available in your village (specify primary/secondary etc)?  | We have around 85 schools in Tripoli; one second there are more, around 90 schools from the elementary to the secondary level. And, there are plenty of universities, for instance Al Azm university, Al Madina university, and LIU. There are around 7 or 8 universities in Tripoli.   |
| C2.1. Are you satisfied with the educational level of the inhabitants of this village?  | Yes, there is a good educational level here.  |

| C2.2. Who are the least vs. most educated/ skilled people in your village?  (Note to interviewer: please ask about profiles not names). | The least educated villages are the poor ones such as Tebbaneh, the internal markets area, Quobbe Ignorance exists wherever there is unemployment.   |
|---|--|
| C3. In your opinion, what problems do the education system in your community face?  | One of the main problems that the educational system faces is school dropout. It is an economical problem not an educational one. Due to the bad economical circumstances, poor families prefer to drop their children out of the schools so that they can work for 10,000 L.L per weekThe level of school dropout is high, and we are trying to face it at the municipality level. For instance, we try every year to pay the fees and to provide children with the needed school supplies. |
| C4.1. Which healthcare facilities are available in this village? And which type of care do they provide                                 | There exists many healthcare facilities for the poor community. For instance, we have many public clinics and hospitals.   |
| C4.2. And which type of care do they provide? (e.g. acute care, preventive, immunization etc.)?   | Healthcare.  |
| C5. What illnesses are most prevalent in your community?  | I have no idea. But, the level of cancerous diseases is increasing.  |

| C6.1. How would you describe the infrastructure and facilities serving this community?  (e.g. buildings, roads, power supplies, sanitation and waste management) | Good. It is good, and it is improving. For instance, Tripoli didn't face any harm (or approximately 10 percent harm) during the storms this winter.  |
|--|--|
| C6.2. What are the biggest problems in this regard?  | The biggest problem in Lebanon (not only in Tripoli) lies in its narrow roads. Any infrastructure project will deactivate the road which will obstruct the stores. People will start nagging, so we must pay compensations. Other problems could occur whilst conducting the projects. For instance, sometimes the ground lines could be affected during excavation. Nowadays, all new projects are backed by executive strategy maps.   |
| <b>B7.1.</b> Which types of public transportation means are available in this village?   | « Service » mainly in addition to few taxi offices. However, the main transportation mean is « service ». Service drivers pass by the roads and grab people. We are conducting a study now in collaboration with a french group and the ministry of transportation about new public or shared transportation lines that hopefully will be launched soon.   |
| B7.2. And do you have any traffic issues?  | We have chaos problems due to the limited number of transportation security officers. However, the situation will hopefully improve since we will be launching a light signals project within the upcoming three months. The overall view of the streets as well as the traffic circulation will hopefully improve. We will be executing it in 10 or 11 crossroads every year, and hopefully things will improve.  |
| <b>B8.1.</b> Who provides the law enforcement in the village?  | The government and the municipality. [Interruption]  -Interviewer: So, the government and the municipality will enforce the laws?  Yes, security forces.  -Interviewer: What is the role of each (i.e. municipality and security forces)?  Security forces as well as the army are responsible of the overall village security. As a municipality, we interfere in building violations, public property infringements, organizing sellers on the roads, providing good infrastructure. |

| B8.2. And how do you estimate the level of crime in this village?   | Very low.   |
|---|---|
| B9. Who are the main players in public safety issues?  (e.g. fire, earthquake, coastal flood, maritime accidents) | An emergency force was formed in the gorvernorate in an attempt to interefere in urgent situations. It did a maneuver attempt two or three weeks ago. |
| B9.a. How many centers are available?   | We have two firefighter stations in Tripoli in addition to the civil defense and the federation of the municipalities.                                |
| B9.b. How fast and qualified is aid normally administered by those players?                                       | -Question skipped   |
| B9.c. Are there fire engines, ambulances and hospitals in this village?   | Yes, we have everything.  |

| B10.1. What are the forms of communication used by people in your community?                   | Mobile [laugh], Facebook, social media [a third party interfered]. Yes, social media.  |
|--|--|
| B10.2. And what problems connected with communication services are typical for your community? | We don't have problems, but they say that the prices are high here.  |
| <b>B11.1.</b> What are the historical and cultural sites available in your village?            | I told you, Tripoli is one of the most important cities after Cairo in the Mediterannean region. We have a very beautiful old village here; the council for development and reconstruction renovated the facade of its buildings. We have the castle of Tripoli as well. As I told you earlier, we have many religious sites here.   |
| B11.2. Where are they located?   | -Already answered.   |
| B11.3. what traditions and customs still exist in your community?                              | As you may know, Tripoli is well-know for its soap production, and we still have till now « Khan Al Saboun » where people produce soaps. All the traditional activities that used to exist are vanishing since they are not economically feasible anymore. We are trying to help them, and we are receiving donations as well. For instance, we help them install stands to sell their products during holidays. We still have the copper market and the fragrance market as well which are specialized markets. |

| J. ECONOMY AND LIVELIHOOD   |  |
|---|--|
| D1. What are the main economic drivers, or the main work sectors available in this village?  (Note to interviewer: please try to ask for percentages) | Trade mainly, manufacturing is still limited here due to the lack of investment as I told you earlier. For that reason the unemployment rate is high. Social media and the IT sector are available as well since the main IT cable is installed here in Tripoli. And, the economic zone took 75,000 meter from the « Rashid Karami » exhibition to create a village forAll the activities here in Tripoli are mainly related to trade. |
| D2. What is the percentage of formal vs. informal businesses in this village?   | I think approximately 80 percent of the businesses are registered.   |
| D3.1. What are specifically the businesses available on the shore line?   | Restaurants mainly [laugh]. The trade is located more internally in the city not on the shore line. I think the most important site for wood industry is located here in Tripoli.  |
| D3.2. And who are engaged in those businesses?  (Note to interviewer: please ask for profiles not names)  | The private sector. [Interruption]   |

| D4.1. Do you have any port in this village?  | ⊠ Yes □ No   |
|--|--|
| D4.2. If yes, by whom it is managed? Used? and for what purposes?                  | It is managed by its administrative board. It is being used for all types of products (cars, wood, sugar, wheat, containers, all types of products). Even dealers from Beirut come to the port here. |
| D5. What is the percentage of employed vs. unemployed individuals in this village? | Above 60 percent [a third party interfered]. As I told you the unemployment rate is approximately 50 percent.  |
| D6. What are the employment rates distributed across sectors?                      | The services sector which is available all over Lebanon (whether skilled and unskilled). Here we have many buchers in the Mina and Al Badawi regions (this information could be of interest to you). |
| D7. What are the main reasons behind unemployment in your community?               | Lack of investment.  |

| D8. Which section of the population is most affected by unemployment?   |   |
|---|---|
| (graduates, young people, people in the right age to work, retired persons, women, men, people of what nationality, former military people, refugees, etc.) | Graduates and literates alike. A huge number of graduates is affected as well (a third party interfered). Yes, I told him approximately 50 percent.   |
| D9.1. How do you describe the tourism in your village?  | As I told you earlier, tourism here is more culturally rather than leisurally. We have a shortage in hotels as well; many hotels will be opened soon. Tourism has been improving heavily during the last six months.  |
| D9.2. What are the main touristic sites and activities? Where are they? Do you have any coastal or marine tourism?  | People come mainly to visit the old renovated villages such as « Khan Al Saboun », the castle of Tripoli, the specialized markets such as the gold market, the fragrance market, the cooper market, the tailors market. Many people still work in these old crafts.  -Interviewer: Do you have any coastal or marine tourism?  Marine tourismvery few, you find it especially in resorts.   |
| D10. How dependent is this village on tourism/ marine tourism? Please describe.   | As I told you earlier, we didn't have much strangers visiting the city since Tripoli was ranked as a red zone. Since the rank improved, more people are visiting it. And, hopefully the flow will keep improving. Now, we have a new plan to improve tourism in the North. And, we will be running a campaign as well in collaboration with the ministry of tourism to boost tourism. People come to Tripoli to visit « Al Hallab » for example, to visit restaurants mainly. However, we have treasures here in Tripoli. |
| D11. What are the main issues in the village?   | -Question skipped.  |

| K. ENVIRONMENT AND NATURAL RESOURCE USE  |  |
|--|--|
| E1. What are the natural resources available in this   | Natural resourcesdo you mean agriculture ?   |
| village?   | -Interviewer: Marine resources   |
|  | Marine resources means petroleum. We have fish [laugh].  |
| E2.1. Who are the parties managing those natural resources?  | The government. Unfortunately, we have islands in the Mina like the « Island of Rabbits » and so on that are neglected. However, they are being revived now as protectresses. Investers could benefit from these islands since they are near from the shore line.                                |
| E3.a. Please describe briefly the climate  | The climate here is moderate like the climate in Lebanon. We have few rainy months and few hot months. And, the climate in the rest of the year is moderate.   |
| E3.b. Please describe briefly the air quality  | The air quality is good. The polution level is acceptable. We have stations here in the federation of the municipalities that measure the pollution levels and so on.  |
| E3.c. Please describe briefly the water quality  | We have groundwater here in the region and ground wells. We have sweet water at 20 meters as well. We have spring water in the sea as well [Interruption].   |
| E4.1. Are there any local organization engaged in environmental matters in this village?   | There are many environmental activities not organizations. But, we have a department in the federation of the municipalities responsible of environmental matters.   |
| E4.2. What are their roles exactly?  | The federation of municipalities? It includes the municipality of Tripoli, Al Mina, Al Beddawi, and Al Kalamoun. All the shared activities happen through the federation. It is responsible of the cleanliness, waste, firefighting stations, slaughterhouse, environmental pollution and so on. |
| E5. Are there any industrial which affect the environment and natural resources of this village?  (e.g. airborne, waterborne, solid waste, noise) or natural | The wood industry is popular here in the region. We have a waste sorting plant as well. We don't have natural hazards mainly. A flood happened in the river 50 or 60 years ago, and it became a stream after expanding it.   |

| hazards (e.g. earthquakes, floods)  |   |
|---|---|
| L. CLOSING  |   |
| F1. Do you have any question or issue that you would like to raise?         | No, we wish you luck, and as I told you earlier, we hope that each city will benefit from the block available it it. Even if people couldn't benefit directly. I think you could save money by choosing Tripoli and Sour as logistical points because the prices here are low. It is considered as a poor city, and our prices are too low. And, you could find here skilled and unskilled workers. |
| F2. Are there any stakeholders that you may recommend us to also talk with? | I think the head of the port, the head of the chamber of commerce, and the head of the economic zone could help in this matter.   |

## TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON **KEY INFORMANT INTERVIEW GUIDE - STAKEHOLDERS - MUNICIPALITY OFFICIALS Location of Interview:** Batroun Date of the interview: 21/05/2019 (Village/Caza/Block Number): Name of interviewee: Male Interviewee Gender: **Interviewee Position:** Head of Municipality Wahib Izmiraghdi Name of Interviewer: Please introduce the oil drilling activities using the BIDs and posters and give the participants an **Notes** opportunity for questions and answers THEME 1 - STAKEHOLDER ENGAGEMENT AND IMPACT ASSESSMENT **DEMOGRAPHICS** We don't have enough information about the oil drilling operations which are Q1. What do you exactly know about going to take place in this area. I only know that block 4 is included. I don't the oil drilling operations which are going to take place in this area? know where the drilling is going to happen as its location.

| Q2. Now, do you have questions?   |  |  |
|---|--|--|
| DEMOCRA DUITOS  | A. BACKGROUND  |  |
| DEMOGRAPHICS  |  |  |
| A1. Please tell me briefly how long have you been head of/working with this municipality, and what is your current role?  | I have been head of the municipality for 19 years and my current role is head of municipality and president of the union.  |  |
| B. DEMOGRAPHIC CHARACTERISTICS AND COMMUNITY STRUCTURE  |  |  |
| Die Could our tell or about the   | C. DEMOGRAPHICS  |  |
| B1.a. Could you tell us about the population in your village:  What is the total number of inhabitants? (Note to interviewer: if possible please ask for distribution: percentages by gender and age groups ( 18, or youth vs. adults vs. elderly)) | Number of inhabitants in the city of Batroun is between 35,000 to 40,000. In Batroun (casa), the number of inhabitants is also between 35,000 to 40,000 (excluding the city of Batroun) and varies from season to season; most inhabitants of Batroun (casa) are located in the coastal cities, which is why the greater number of inhabitants is concentrated in Batroun the city. Females make an estimated 55% of the population while males are 45% of the population. Average age range 37-40 makes the largest percentage of the population. |  |
| <b>B1.b.</b> Who do you identify as vulnerable in your community?   | Fishermen are the most vulnerable in my community, some farmers (farmers are becoming extinct and they are going towards a different trade). The agricultural sector was previously active, but is now almost extinct as the city is growing and the real estate prices are increasing; many farmers took advantage of the price increase to rent/sell their properties especially the ones near the coast which are in higher demand since they are closer to the schools etc   |  |
| B1.c.1. Is there any cultural diversity?  | Yes  |  |

| C1. How many schools and universities are available in your village (specify primary/secondary etc)?  | Four high schools, two middle schools, and one university. In terms of infrastructure, Batroun is the only city on the Lebanese coast that has waste water treatment which is why this is the only city which has 0 pollution because there was awareness raised in the city and because it is a touristic city. Right now, we are working on a very important project which will be completed soon: a solid waste treatment plant.  |
|---|--|
| C. SOCIAL SERVICES AND INFRASTRUCTURE  D.   |  |
| B2.2. What are their roles and how decisions are made?  (Note to interviewer: please probe into mayors, religious figures, policemen, teachers) | Decisions are made according to the best interest of the residents of Batroun and the political leaders from our city participate in the decision making as it is part of their role to serve their community and their country.   |
| <b>B2.1.</b> Who are the important leaders in the village?  | The minister Jubran Bassil is from Batroun, and there is also a member of the parliament representing the Lebanese Forces who is from Batroun.   |
| B1.d. Are there different religious beliefs in this village?  (Note to interviewer: please ask for percentages if possible)                     | 80% Maronite, 10% greek orthodox, and 10% sunni and shi'a.   |
| B1.c.2. If yes, please describe what is the diversity?  (Note to interviewer: please identify who)  | We have cultural diversity and several nationalities living in Batroun such as American and French of Lebanese origin, the cultural diversity has increased after the war was over, when several families who had immigrated returned.  Interviewer: how is this reflected in the tourism?  Batroun is a very touristic area, we rely the most on the tourism sector since we don't have anything else to rely on. All our projects are to support the tourism sector. Batroun has a rich heritage and a clean coast, and we are doing our best to promote it due to a recent phenomenon of a touristic surge from both locals and foreigners. |

| _  |  |
|--|--|
| C2.1. Are you satisfied with the educational level of the inhabitants of this village?   | Yes, I am very satisfied, the educational level of the inhabitants of Batroun has increased significantly, the previous generation had a very low educational level but right now, but right now the educational level is very high compared to other areas and we are very proud. |
| C2.2. Who are the least vs. most educated/ skilled people in your village?  (Note to interviewer: please ask about profiles not names).                          | Most of the inhabitants of Batroun are middle class; I cannot classify the people according to least/most educated or skilled.   |
| C3. In your opinion, what problems do the education system in your community face?   | There are always problems, but there is always help for the needy families, for example scholarships and so on, sometimes we are able to help. We do not have any major problems.  |
| C4.1. Which healthcare facilities are available in this village? And which type of care do they provide  | We have a hospital in Batroun and several dispensaries that provide services to the inhabitants.   |
| C4.2. And which type of care do they provide? (e.g. acute care, preventive, immunization etc.)?  | Not asked  |
| C5. What illnesses are most prevalent in your community?   | None   |
| C6.1. How would you describe the infrastructure and facilities serving this community?  (e.g. buildings, roads, power supplies, sanitation and waste management) | The infrastructure and facilities in the city are very good.   |
| C6.2. What are the biggest problems in this regard?  | None. A lot of work has been done in Batroun. For example, the Fishermen Port is a touristic port and is a very important Port, and has been expanded and improved.  |

| <b>B7.1.</b> Which types of public transportation means are available in this village?                             | None. We do not have public transport.  |
|--|---|
| B7.2. And do you have any traffic issues?  | Right now we don't have any traffic issues. We have come up with many solutions to reduce traffic problems. We improved our roads, and made them into modern roads; we added rain water drainage systems. All our roads are built according to modern standards.  |
| B8.1. Who provides the law enforcement in the village?   | Not asked   |
| B8.2. And how do you estimate the level of crime in this village?  | Batroun is an exemplary in that respect in Lebanon. There are no crimes and there are no people from Batroun in Lebanese prisons.   |
| B9. Who are the main players in public safety issues ?  (e.g. fire, earthquake, coastal flood, maritime accidents) | The Civil Defense and the Red Cross are two very important players in public safety issues. We also have Sea Rescue, which is affiliated with the Civil Defense.  |
| B9.a. How many centers are available?  | The Red Cross, the Civil Defense and the Sea Rescue, which is affiliated with the Civil Defense.  |
| B9.b. How fast and qualified is aid normally administered by those players?  | When the staffs in these three organizations are from the city, the level of service is always very high because the staff will feel like they are serving members of their community and people they know and they will be more concerned with helping others. This is why we are always adamant on hiring heads for these institutions that are from Batroun. |
| B9.c. Are there fire engines, ambulances and hospitals in this village?  | Yes, of course.   |

| B10.1. What are the forms of communication used by people in your community?  | A sports center built by the residents and the municipality, the scouts, NGOs etc   |
|---|---|
| B10.2. And what problems connected with communication services are typical for your community?  | No  |
| B11.1. What are the historical and cultural sites available in your village?  | Batroun is a very rich city in terms of its culture and history; there are so many historical and cultural sites for me to list. We are trying to showcase it even more by investing in the touristic sector. The challenge is for the inhabitants of Batroun to invest more in order to maintain the touristic status of the city.                             |
| B11.2. Where are they located?  | On the coast and inside the old city.   |
| B11.3. what traditions and customs still exist in your community?   | Every village has its own identity. In terms of food, our specialty is winemaking, we have nine wineries in Batroun (more than any other city in Lebanon) and we also have breweries.   |
|   | D. ECONOMY AND LIVELIHOOD  C.   |
| D1. What are the main economic drivers, or the main work sectors available in this village?  (Note to interviewer: please try to ask for percentages) | Tourism is the main economic driver, and a pillar of our economy; we have lots of projects in the old city. Batroun is also distinguished by its restaurants and hotel resorts. We have an increasing number of hotel rooms for tourists and visitors especially with the Batroun International Festival happening every year, which have been very successful. |
| D2. What is the percentage of formal vs. informal businesses in this village?   | I believe most businesses are formally registered.  |
| D3.1. What are specifically the businesses available on the shore line?   | There are no industrial businesses on the coast inside of Batroun city, but outside of the city and within the case, there are.  On the shore line, we have restaurants and hotel resorts.  |

| D3.2. And who are engaged in those businesses?  (Note to interviewer: please ask for profiles not names)  | Private investors/ individuals.   |
|---|---|
| D4.1. Do you have any port in this village?   | Yes.  |
| D4.2. If yes, by whom it is managed? Used? and for what purposes?   | The port is affiliated with the Directorate of Transport - The Ministry of Public Works and Transport and is managed/run by the co-operative of fishermen, which is an elected body, although the laws need to be developed because the co-operative doesn't have sufficient power to run the port effectively. |
|   | There is a basin for fishermen, a basin for amateurs, and some touristic yachts, but mostly for amateurs, as fishermen are going extinct.   |
| D5. What the percentage is of employed vs. unemployed individuals in this village?  | Unemployment rate is less than 10%, and lower than other regions in Lebanon   |
| D6. What are the employment rates distributed across sectors?   | The tourism sector has the highest employment rate.   |
| D7. What are the main reasons behind unemployment in your community?  | The main reason behind unemployment in the community is the lack of development, the freeze on housing loans, lack of financing for companies, the freeze on subsidized loans for various sectors.  |
| D8. Which section of the population is most affected by unemployment?   |   |
| (graduates, young people, people in the right age to work, retired persons, women, men, people of what nationality, former military people, refugees, etc.) | The construction sector which employs a multitude of professions, such as lawyers, engineers, construction materials sellers, etc   |
| D9.1. How do you describe the tourism in your village?  | Tourism is very important in Batroun and its biggest pillar.  |
| D9.2. What are the main touristic sites and activities? Where are they? Do you have any coastal or marine tourism?  | The main touristic sites are located on the shore line, the old city and inside the city. Sports activities inside the city as well as resorts such as Batroun Village Club and so on.  |

| D10. How dependent is this village on tourism/ marine tourism? Please describe.  | Not asked.  |
|--|---|
| D11. What are the main issues in the village?  | No major issues.  |
| E. EN  | IVIRONMENT AND NATURAL RESOURCE USE   |
| E1. What are the natural resources available in this village?  | We rely on our fish – the fish in Batroun are distinguished from other fish in the coastal cities of Lebanon and this is mainly due to the fact that the seabed in Batroun is rocky, our fish are more expensive than other local fish. |
|  | Previously, sea salt, but due to the urbanization of the city, the resource is no longer being exploited.   |
| E2.1. Who are the parties managing those natural resources?  | The municipality has a major role in managing these natural resources and the main beneficiary from these resources are the inhabitants of the city.  |
| E3.a. Please describe briefly the climate  | Middle Eastern moderate climate, four seasons,  |
| E3.b. Please describe briefly the air quality  | Fair  |
| E3.c. Please describe briefly the water quality  | The water quality in Batroun is great and we are working on improving it even more, all of Batroun is equipped with sewage treatment.   |
| E4.1. Are there any local organization engaged in environmental matters in this village?   | There are many activists engaged in environmental matters, but in general environmental matters are under our control as a municipality, we deal with these issues.   |
| E4.2. What are their roles exactly?  | Not asked   |
| E5. Are there any industrial which affect the environment and natural resources of this village?  (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. | No, we do not have any industries which affect the environment and natural resources of Batroun and no natural hazards.   |
| earthquakes, floods)   |   |

| F. CLOSING  |  |
|---|--|
| F1. Do you have any question or issue that you would like to raise?         | I have a comment about the Brochure you have, first of all, I come from a construction work background, but I do have a pretty idea about the oil and gas domain to have the infrastructureto do this kind of work (oil exploration). What bothers me with this project is that choosing the Beirut Port is very unprofessional, while the Batroun Port for example, is very well equipped to handle the same work. I don't have anything against Beirut, but not everything should be located in Beirut. I'll tell you why: Batroun fits the project, and the Batroun port is more protected than the Beirut port. The Batroun port (we also call it the Oil Port) is also deeper than the Beirut Port and has much less traffic, it also is the biggest port in Lebanon and it receives some of the world's biggest ships, it can also land two, three helicopters easily There is unbuilt space to do the project At the same time, facilities such as hotels and housing are readily and widely available and at a cheaper cost. In addition, labor in Batroun is cheaper. Overall operating in Batroun Port would be costing at least four to five times less than operating from the Beirut Port. If there is anyone involved in decision making that would like to meet with me, I am ready and I have a file with the required information that is also ready. |
| F2. Are there any stakeholders that you may recommend us to also talk with? | Not Asked  |

## TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE - STAKEHOLDERS — MUNICIPALITY OFFICIALS Location of Interview: (Village/Caza/Block Number): Name of interviewee: Interviewee Gender: Male

| Interviewe Peritien  | Member of Municipal Council   |
|--|---|
| Interviewee Position:  | Member of Municipal Council.  |
| Name of Interviewer:   | Antonio Chitti  |
| Notes  | Please introduce the oil drilling activities using the BIDs and posters and give the participants an opportunity for questions and answers  |
|  | - STAKEHOLDER ENGAGEMENT AND IMPACT ASSESSMENT  |
| DEMOGRAPHICS   |   |
| Q1. What do you exactly know about the oil drilling operations which are going to take place in this area?   |   |
| Q2. Now, do you have questions?  | I don't have any questions. Everything you said is clear.   |
|  | G. BACKGROUND   |
| DEMOGRAPHICS   |   |
| A1. Please tell me briefly how long have you been head of/working with this municipality, and what is your current role?   | I have been working with the Municipality for around 20 years. I am involved in its entire works. I examine and study all administrative and financial files. I am an employee and I gained lots of experience throughout these 20 years. |
| H. DEMOGRAF  | PHIC CHARACTERISTICS AND COMMUNITY STRUCTURE  |
|  | I. DEMOGRAPHICS   |
| B1.a. Could you tell us about the population in your village:  |   |
| What is the total number of inhabitants? (Note to interviewer: if possible please ask for distribution: percentages by gender and age groups ( 18, or youth vs. adults vs. elderly)) | Around 10,000 inhabitants. However, this number varies between summer and winter. In summer, tourism sites or projects are fully booked while in winter they are empty.   |

| B1.b. Who do you identify as vulnerable in your community?  | I think elderly people, widows and people with special needs are the most vulnerable in all Lebanese regions and not only within this area of ours. We don't have proper Old Age Security.  |  |  |
|---|---|--|--|
| B1.c.1. Is there any cultural diversity?  | ☐ Yes ☑ No  |  |  |
| B1.c.2. If yes, please describe what is the diversity?  (Note to interviewer: please identify who)  | I think no. We are all Lebanese in the region.  [Interviewee seemed uncomfortable answering this question]  |  |  |
| B1.d. Are there different religious beliefs in this village?  (Note to interviewer: please ask for percentages if possible)                     | No. We are all Christians. But we have Syrian refugees.   |  |  |
| B2.1. Who are the important leaders in the village?   | Jean Hawa, he is everyone's father. Two elderly people. One is 93 and the other 94.   |  |  |
| B2.2. What are their roles and how decisions are made?  (Note to interviewer: please probe into mayors, religious figures, policemen, teachers) | Generally, we don't ask anyone for any decisions. The municipality decides everything.  The church also takes few decisions.  |  |  |
| E.  | E. SOCIAL SERVICES AND INFRASTRUCTURE  F.   |  |  |
| C1. How many schools and universities are available in your village (specify primary/secondary etc)?  | We have only one public school. (For both primary and secondary classes.) However, this school is being marginalized.   |  |  |
| C2.1. Are you satisfied with the educational level of the inhabitants of this village?  | Every year, the number of Lebanese students in this school decreases and the school is being marginalized.  Now, we find more Syrian students instead.  In general, the educational level of inhabitants is good because they don't rely on this school anymore. Students are studying in private schools and universities outside the village. |  |  |

| C2.2. Who are the least vs. most educated/ skilled people in your village?  (Note to interviewer: please ask about profiles not names).                          | It's like a pyramid. Our grandfathers were less educated than our youth now.   |
|--|--|
| C3. In your opinion, what problems do the education system in your community face?   | Syrian refugees.  Our public school is not getting enough attention and help from the government. Same teachers teach in private schools. Why there is a lot of difference in the educational level of children?  I will answer you. There is a difference because in private schools there is discipline.   |
| C4.1. Which healthcare facilities are available in this village? And which type of care do they provide  | St. George Health Clinic.  |
| C4.2. And which type of care do they provide? (e.g. acute care, preventive, immunization etc.)?  | This health clinic offers care service.  They provide vaccination.  Organize blood test and breast examination campaigns. Yesterday they organized a full day for eye examination.  Dentistry as well.   |
| C5. What illnesses are most prevalent in your community?   | All illnesses are present but nothing specific just like any other village.  |
| C6.1. How would you describe the infrastructure and facilities serving this community?  (e.g. buildings, roads, power supplies, sanitation and waste management) | The Municipality worked a lot on infrastructure. Our village is accessible from five points. Our past projects included upgrading of the main road and asphalting them. But just like all the villages in Kesrewan, we lack a proper sewage system. All required studies and funding are already provided but they did not start with the project yet. In addition to that, they should initiate the Metro in the capital. |
| C6.2. What are the biggest problems in this regard?  | Not Asked.   |

| B7.1. Which types of public transportation means are available in this village?                                   | None. Maybe small buses.  |
|---|---|
| B7.2. And do you have any traffic issues?   | We may have little traffic on the main road.  |
| B8.1. Who provides the law enforcement in the village?  | Police (Municipality Police).  If we have big weddings at night or any other big religious ceremonies, we can ask the military to be present.                             |
| B8.2. And how do you estimate the level of crime in this village?   | No crimes at all.   |
| B9. Who are the main players in public safety issues?  (e.g. fire, earthquake, coastal flood, maritime accidents) | Civil Defense and Red Cross.  |
| B9.a. How many centers are available?   | The closest stations (for both Civil Defense and Red Cross) are in Jounieh.   |
| B9.b. How fast and qualified is aid normally administered by those players?                                       | Generally, they are fast enough.  |
| B9.c. Are there fire engines, ambulances and hospitals in this village?   | Of course. Few years ago, a carpet factory was on fire. It kept burning for around four days. All Civil Defense teams were present, and they managed to put out the fire. |
| B10.1. What are the forms of communication used by people in your community?                                      | Social media, especially WhatsApp and Facebook.   |
| B10.2. And what problems connected with communication services are typical for your community?                    | People are controlled by their cellphones. If someone calls, they immediately answer. This may lead to car accidents.   |
|   |   |

| <b>B11.1.</b> What are the historical and cultural sites available in your village?   | We don't have any historical or cultural sites in the village. We only have the Saint George church that is old and Saint Sophia church. (both are more than 150 years old)   |  |
|---|---|--|
| B11.2. Where are they located?  | Not Asked   |  |
| <b>B11.3.</b> what traditions and customs still exist in your community?  | Churches sometime make a type of food called "Harise".  |  |
| J. ECONOMY AND LIVELIHOOD  D.   |   |  |
| D1. What are the main economic drivers, or the main work sectors available in this village?  (Note to interviewer: please try to ask for percentages) | A lot of people work in agriculture. Others in both industry and tourism sectors. We have 4 resorts in the village. You start with Saint Paul, Rabya marine, Dar Sur Mer and Safra marine. Other big projects include companies like Hawa Chicken, Nakhle Zgheib, the carpet factory, the marble factory and Phoenix. |  |
| D2. What is the percentage of formal vs. informal businesses in this village?   | In my opinion, the percentage is the same for industry, tourism and agriculture sectors. Approximately, 35% each.  The industry sector was the biggest, but now it's not the case. Hawa Chicken moved to Anfeh.   |  |
| D3.1. What are specifically the businesses available on the shore line?   | We have a restaurant in Rabya marine, one in Safra marine and one at the end of Safra.  |  |
| D3.2. And who are engaged in those businesses?  (Note to interviewer: please ask for profiles not names)  | Safra inhabitants.  |  |
| D4.1. Do you have any port in this village?   | ☐ Yes ☑ No  |  |
| D4.2. If yes, by whom it is managed? Used? and for what purposes?   | Not Asked   |  |

| D5. What is the percentage of employed vs. unemployed individuals in this village?   | The percentage of unemployed individuals is extremely low. Yes, the economic situation is not easy but it's so rare to find an unemployed Safra inhabitant.                   |  |
|--|---|--|
| D6. What are the employment rates distributed across sectors?  | Not asked.  |  |
| D7. What are the main reasons behind unemployment in your community?   | The economic situation in general. Companies can no longer handle the big number of available employees.  |  |
| D8. Which section of the population is most affected by unemployment?  (graduates, young people, people in the right age to work, retired persons, women, men, people of what nationality, former military people, refugees, etc.) | If the country is flourishing, all sectors work properly and become in need of employees. Right now, it's not the case.  I think educated young people are the most affected. |  |
| D9.1. How do you describe the tourism in your village?   | We don't have maritime tourism. However, we have several resorts.   |  |
| D9.2. What are the main touristic sites and activities? Where are they? Do you have any coastal or marine tourism?   | Not Asked   |  |
| D10. How dependent is this village on tourism/ marine tourism? Please describe.  | Not Asked   |  |
| D11. What are the main issues in the village?  | We face challenges on how to approach sanitation. We also suffer from the big number of cars and parking lots.  |  |
| K. ENVIRONMENT AND NATURAL RESOURCE USE  |   |  |
| E1. What are the natural resources available in this village?  | No. We only have two licensed water wells.  |  |
| E2.1. Who are the parties managing those natural resources?  | Their owners. (Safra inhabitants)   |  |

| E3.a. Please describe briefly the climate   | We have a good and temperate climate. You can live in Safra in both summer and winter.                                   |  |
|---|--|--|
| E3.b. Please describe briefly the air quality   | Air is a bit polluted because of cars.   |  |
| E3.c. Please describe briefly the water quality   | Water is good, it's not polluted. It comes from Anfeh.   |  |
| E4.1. Are there any local organization engaged in environmental matters in this village?  | There are no organizations concerned with environmental issues.  |  |
| E4.2. What are their roles exactly?   |  |  |
| E5. Are there any industrial which affect the environment and natural resources of this village?  (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) |  |  |
|   | L. CLOSING   |  |
| F1. Do you have any question or issue that you would like to raise?   | No. Everything is clear. We just wish that everything works properly.  |  |
| F2. Are there any stakeholders that you may recommend us to also talk with?   | You can talk to the founder of Hawa Chicken. He opened his first farm in Safra and now he has branches all over Lebanon. |  |

## TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE - STAKEHOLDERS — MUNICIPALITY OFFICIALS

| Location of Interview: (Village/Caza/Block Number):  | Okaibeh/Kesrewan/ block 4  | Date of the interview : | 21/05/2019                   |
|--|--|-------------------------|------------------------------|
| Name of interviewee:   |  |                         |                              |
| Interviewee Gender :   | Male   |                         |                              |
| Interviewee Position :   | Head of municipality   |                         |                              |
| Name of Interviewer :  | Antonio Chitti   |                         |                              |
| Notes  | Please introduce the oil drilling active opportunity for questions and answer.                   |                         | and give the participants an |
| THEME 1 DEMOGRAPHICS   | - STAKEHOLDER ENGAGEMENT A   | IND IMPACT ASSESSMENT   |                              |
| Q1. What do you exactly know about the oil drilling operations which are going to take place in this area?   | I only know some information   | from the news and from  | the ministry.                |
| Q2. Now, do you have questions?  | No, everything is clear.   |                         |                              |
|  | A. BACKGROUND  |                         |                              |
| DEMOGRAPHICS   |  |                         |                              |
| A1. Please tell me briefly how long have you been head of/working with this municipality, and what is your current role?   | I'm the head of municipality, I have been in this position for 3 years.                          |                         |                              |
| B. DEMOGRA   | APHIC CHARACTERISTICS A  | ND COMMUNITY STE        | RUCTURE                      |
| C. DEMOGRAPHICS  |  |                         |                              |
|  | C. DEPIOGRAPHICS   |                         |                              |
| <b>B1.a.</b> Could you tell us about the population in your village:   |  |                         |                              |
| What is the total number of inhabitants? (Note to interviewer: if possible please ask for distribution: percentages by gender and age groups ( 18, or youth vs. adults vs. elderly)) | The residents are about 10,000 Interviewer: do you have gen it's mixed of both men and wo women. | der percentage?         | as 50% men and 50%           |

| B1.b. Who do you identify as vulnerable in your community?  | Interviewer: do you think the refugees are vulnerable? no, not at all today the are in a better situation than us, they get help. Interviewer: then whom do you think is vulnerable in your community? I think people that don't have social security, or aging insurance those are the people that are vulnerable Interviewer: than you are talking about the elderly mainly Yes, you can say that the elderly are the vulnerable. |  |
|---|---|--|
| B1.c.1. Is there any cultural diversity?  | □√ Yes □ No   |  |
| B1.c.2. If yes, please describe what is the diversity?  (Note to interviewer: please identify who)  | We have engineers, doctors, fishermen because the city is known for fishing in its history we have people that work in electricity, water, agriculture, and more.  Today it increases.  |  |
| B1.d. Are there different religious beliefs in this village?  (Note to interviewer: please ask for percentages if possible)                     | No, not really the area is mostly Christian.  |  |
| <b>B2.1.</b> Who are the important leaders in the village?  | We have the deputy Shawki Al Daccach he is from the Okaibeh, we have a former minister.   |  |
| B2.2. What are their roles and how decisions are made?  (Note to interviewer: please probe into mayors, religious figures, policemen, teachers) | They always had a positive role but they don't interfere in the managing the town we take their opinion when we have some big projects.   |  |
|   | C. SOCIAL SERVICES AND INFRASTRUCTURE  D.   |  |
| C1. How many schools and universities are available in your village ( specify primary/secondary etc)?   | We have two schools, primary and secondary (Mar Youhanna school as known as ecole saint Charle and Em El nour).   |  |
| C2.1. Are you satisfied with the educational level of the inhabitants of this village?  | We are trying as much as we can to improve the education level so that we can have universities.  |  |

| C2.2. Who are the least vs. most educated/ skilled people in your village?  (Note to interviewer: please ask about profiles not names).                          | The old generation (now aging in 70) back in the 50's and 60's they didn't had schools, we had in this area a school only to teach the basics such as writing your name. And since that education improved and became essential Today rare are the people that done get education.   |
|--|--|
| C3. In your opinion, what problems do the education system in your community face?   | The problems are mainly financial (fees).  |
| C4.1. Which healthcare facilities are available in this village? And which type of care do they provide  | As a municipality we have a helping system for people with special situation, we used to have a dispensary but not anymore because it didn't get any support and the municipality as you know today is not in good condition (not getting help).  There's a dispensary related to charitable organization, and we have a hospital on the border with Keserwen.   |
| C4.2. And which type of care do they provide? (e.g. acute care, preventive, immunization etc.)?  | Not Asked  |
| C5. What illnesses are most prevalent in your community?   | Lately we are hearing a lot about heart diseases and cancer.   |
| C6.1. How would you describe the infrastructure and facilities serving this community?  (e.g. buildings, roads, power supplies, sanitation and waste management) | The infrastructure is not bad, we need to improve our infrastructure because what was already established is getting old and we don't have the capabilities to build new ones.   |
| C6.2. What are the biggest problems in this regard?  | Mainly in the sewage, we are promised by an engineering company "Khatib w Alami" they already did their study and the money is already funded And this is a dilemma because usually everyone is shifting to the new machinery that is environment friendly.  We are located on 350 above sea to 0 so today the nature of our area and the geological terrain forces us to have a good sewage.  As you know other through their waste in the sea but we are maintaining and taking care of the sea and the environment. |

| B7.1. Which types of public transportation means are available in this village?                | The public transportation available are mini buses but not for the public they are managed by few people, and the buses that pass by the inner-roads and the taxis.                          |
|--|--|
| B7.2. And do you have any traffic issues?  | Surely the Okeibeh Souk is important and big and we should improve infrastructure to help us facilitate our daily routine but this needs support so that municipalities can execute it.      |
| B8.1. Who provides the law enforcement in the village?   | The municipality and the municipal police. The municipality take care of the internal issues and sometimes the internal security forces for bigger problems.                                 |
| B8.2. And how do you estimate the level of crime in this village?                              | 0%   |
| B9. Who are the main players in public safety issues ?   | We have the municipal police, we have a big center for the civil defense in  |
| (e.g. fire, earthquake, coastal flood, maritime accidents)                                     | case of accidents (fire, drowning)   |
| B9.a. How many centers are available?  | They have only 1 center  |
| B9.b. How fast and qualified is aid normally administered by those players?                    | They are fast because we are near and on the same road.  |
| B9.c. Are there fire engines, ambulances and hospitals in this village?                        | Yes, they have all engines and amulances   |
| B10.1. What are the forms of communication used by people in your community?                   | Mainly through cellphones and social media platforms (whatsapp)  |
| B10.2. And what problems connected with communication services are typical for your community? | The internet should be faster and better it should be also available for the public not only on the private cellphone.   |
| <b>B11.1.</b> What are the historical and cultural sites available in your village?            | We have archeological sites as the archery of Zbeideh, the Romanian bridge that ages for 100 of years. And we also have Naher Ibrahim and it archeological sites that passes in the Okaibeh. |

| B11.2. Where are they located?  | Not Asked   |
|---|---|
| B11.3. what traditions and customs still exist in your community?   | The official holidays that take place in the city, especially the pastoral We have the pastoral of Youhanna (saint Charle) the biggest one and has 3 main churches in the area.  And the yearly customs and traditions like Christmas carnival with the citizen participation.  |
|   | D. ECONOMY AND LIVELIHOOD   |
|   | C.  |
| D1. What are the main economic drivers, or the main work sectors available in this village?  (Note to interviewer: please try to ask for percentages) | Okaibeh is known for its restaurants and fish restaurants also the fishermen so mainly it's the hospitality sector but this surely is not enough to employ everyone. We also have some industries and factories in addition to small enterprises (category 4 and 5) also most of them have some agriculture activities. |
| D2. What is the percentage of formal vs. informal businesses in this village?   | The enterprises are mainly all registered but you have small business that might not be registered but today everyone is forced to register to be legal. Only about 10 to 15% are not registered  |
| D3.1. What are specifically the businesses available on the shore line?   | There are small establishments such as Kamel trading, and 6 medium resorts that influence the economic situation of the area in addition to the restaurants near.   |
| D3.2. And who are engaged in those businesses?  (Note to interviewer: please ask for profiles not names)  | Not Asked   |
| D4.1. Do you have any port in this village?   | □√ Yes □ No   |
| D4.2. If yes, by whom it is managed? Used? and for what purposes?   | Managed by the fishermen coop of Okaibeh used to organize their work.  Interviewer: to put their materials?  Yes, to put their materials and they also have a small restaurant in it  |
| D5. What is the percentage of employed vs. unemployed individuals in this village?  | More than 20% are unemployed (less than 80% employed)   |
| D6. What are the employment rates distributed across sectors?   | Most people go towards fishy business because this is what the city is known for, so they try to make business as chalet or small resorts or a pool near its enterprise or a restaurant even if it was a small one.   |

| D7. What are the main reasons behind unemployment in your community?   | The employment opportunity is almost null because you don't find big enterprises in this area, and our city is mainly residential  |  |
|--|--|--|
| D8. Which section of the population is most affected by unemployment?  (graduates, young people, people in the right age to work, retired persons, women, men, people of what nationality, former military people, refugees, etc.) | People that have agricultural based work.  Interviewer: I mean age range like youth, elderly?  Mainly the graduates that don't find any job opportunities so they decide to travel   |  |
| D9.1. How do you describe the tourism in your village?   | Its perfect, the sea is the most attractive aspect. As you know water is the source of life.   |  |
| D9.2. What are the main touristic sites and activities? Where are they? Do you have any coastal or marine tourism?   | Yes, you can say we have coastal and marine tourism.   |  |
| D10. How dependent is this village on tourism/ marine tourism? Please describe.  | Not Asked  |  |
| D11. What are the main issues in the village?  | The main issue is mainly its reducing the level of development. The municipality is not getting much money in addition to not having any property related to the municipality to invest in it for development purposes   |  |
| E. 1   | ENVIRONMENT AND NATURAL RESOURCE USE   |  |
| E1. What are the natural resources available in this village?  | The natural resources that many people depend on are the fish and marine resources and some depend on agriculture.  As for the sand it not used for trading purposes we have some rocks and recently we are trying not to sell them. So you Can say we don't have natural resources except for the marine resources  Interviewer: so you have natural resources but for trading purposes.  Yes, they are reserved now. |  |
| <b>E2.1.</b> Who are the parties managing those natural resources?   | For the marine resources we have a fishermen coop and benefit from it the associated of the coop.  |  |
| E3.a. Please describe briefly the climate  | Moderate climate, we benefit from the seashore We have the largest public beach  |  |
| E3.b. Please describe briefly the air quality  | The air is not polluted  |  |
| E3.c. Please describe briefly the water quality  | The water is clean because our sewage are not transferred to the sea.  |  |
| quality  | The water is clean occause our sewage are not transferred to the sea.  |  |

| <b>E4.1.</b> Are there any local organization engaged in environmental matters in this village?   | No, the municipality  |  |  |
|---|---|--|--|
| E4.2. What are their roles exactly?   | Not Asked.  |  |  |
| E5. Are there any industrial which affect the environment and natural resources of this village?  (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) | No, but we have some industries near Naher Ibrahim but are organized regarding the opening and closing time   |  |  |
|   | F. CLOSING  |  |  |
| F1. Do you have any question or issue that you would like to raise?   | No, but we want this project to be beneficial for the Okaibeh especially the seashore area that is included in this project and most importantly not to affect the environment  We all need new job opportunities and this project hopefully will help create new ones. |  |  |
| F2. Are there any stakeholders that you may recommend us to also talk with?   | No you are already contacting the fishermen and the municipality is sharing these information with the concerned parties  |  |  |

## TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE - STAKEHOLDERS - MUNICIPALITY OFFICIALS

| Location of Interview: (Village/Caza/Block Number):  | Amchit Municipality  | Date of the interview : | Wednesday 22-05-2019 |  |
|--|--|-------------------------|----------------------|--|
| Name of interviewee:   |  |                         |                      |  |
| Interviewee Gender :   | Male   | Male                    |                      |  |
| Interviewee Position :   | Head of Municipality   |                         |                      |  |
| Name of Interviewer :  | Antonio Chiti  |                         |                      |  |
| Notes  | Please introduce the oil drilling activities using the BIDs and posters and give the participants an opportunity for questions and answers   |                         |                      |  |
| THEME 1 – STAKEHOLDER ENGAGEMENT AND IMPACT ASSESSMENT DEMOGRAPHICS  |  |                         |                      |  |
| Q1. What do you exactly know about the oil drilling operations which are going to take place in this area? | I have an overview idea about the project happening, and I have seen several reportages on television regarding the oil drilling activity. I wishfully hope for the exploration to occur the soonest possible because it is a good initiative for our country, so we better work on it and explore the oil and gas before anyone comes and take it.  |                         |                      |  |
| Q2. Now, do you have questions?  | This project is being held by experts and specialists and those people are doing the right initiatives in studying the social and economic baseline activity. However, I am always positive in projects related to this matter in Lebanon because its impact is positive in providing safe and secure future for our country. We're still under the assessment phase and as long as the project is going in the professional and expert way I don't have a problem in this regard. |                         |                      |  |
| M.BACKGROUND   |  |                         |                      |  |

**DEMOGRAPHICS** 

| A1. Please tell me briefly how long have you been head of/working with this municipality, and what is your current role?   | I preside the Head of the municipality from 21 years ago. And I operate in all matters regarding the Amchit area.  |
|--|--|
| N. DEMOGRAP  | PHIC CHARACTERISTICS AND COMMUNITY STRUCTURE   |
|  | O. DEMOGRAPHICS  |
| <b>B1.a.</b> Could you tell us about the population in your village:   |  |
| What is the total number of inhabitants? (Note to interviewer: if possible please ask for distribution: percentages by gender and age groups ( 18, or youth vs. adults vs. elderly)) | We have around 33,000 inhabitants in Amchit, half males and half females. 40% are you youth people, approximately 40% are adults whereas the rest of the 20% are elderly.  |
| <b>B1.b.</b> Who do you identify as vulnerable in your community?  | The majority in our society are family people and groups, you can find selected people as widows that are vulnerable with no help, sometimes the municipality takes good care of them or their closed family and friends provide some help and support. However, we don't have a major problem but merely the Syrian presence in Amchit. |
| B1.c.1. Is there any cultural diversity?   | ⊠ Yes □ No   |
| B1.c.2. If yes, please describe what is the diversity?   | Of course we have cultural diversity; we have intellectual people, less intellectual ones and illiterate people.   |
| (Note to interviewer: please identify who)   |  |
| <b>B1.d.</b> Are there different religious beliefs in this village?  | In general, we have two groups the Christianity and the Shiite individuals.  |
| (Note to interviewer: please ask for percentages if possible)  |  |
| <b>B2.1.</b> Who are the important leaders in the village?   | We have a patriarch in Amchit along with the former president of the republic, former ministers and former deputies.   |
| <b>B2.2.</b> What are their roles and how decisions are made?  |  |
| (Note to interviewer: please probe into mayors, religious figures, policemen, teachers)  |  |
| G.   | SOCIAL SERVICES AND INFRASTRUCTURE   |

| H.   |  |
|--|--|
| C1. How many schools and universities are available in your village ( specify primary/secondary etc)?  | We have Freres Maristes secondary school, Lycee Amchit private secondary school, secondary Amchit High School, with primary and secondary free school. However, an availability of one university branch which is University of Science.   |
| C2.1. Are you satisfied with the educational level of the inhabitants of this village?   | Definitely, we have a good academic level.   |
| C2.2. Who are the least vs. most educated/ skilled people in your village?  (Note to interviewer: please ask about profiles not names).                          | In my opinion, we can't ask this question it depends on the level of education in the family. But Lebanese families in general, they love educating their children even if they don't have money they risk the chance of selling a land in order to do so. And in Amchit we have this tendency and mentality.  |
| C3. In your opinion, what problems do the education system in your community face?   | The problem we face is the management routine like in municipalities. For example, like public schools in Amchit if they have a funding packet that contains around 200,000,000 L.L to do some fixations for bathrooms, the law here in Lebanon needs a minimum period of three months to approve.   |
| C4.1. Which healthcare facilities are available in this village? And which type of care do they provide  | In Amchit we have a free hospital established from 120 years ago and it was the first free hospital in the village and in Batroun, Jbeil and Keserouan districts. It provides primary healthcare services whereas, the Syrian patients are the most benefited from it. As well as few dispensaries around the village that provides vaccination, X-rays, echoes and check-ups. |
| C4.2. And which type of care do they provide?  (e.g. acute care, preventive, immunization etc.)?   |  |
| C5. What illnesses are most prevalent in your community?   | Air pollution is the most prominent and dangerous illness in our community. In the neighborhood around Amchit, we have an old garbage dump however the materials used for pesticides weren't under control as they should be, following the high rate of smokers in the village. So the illnesses are basically cancer and allergies.  |
| C6.1. How would you describe the infrastructure and facilities serving this community?  (e.g. buildings, roads, power supplies, sanitation and waste management) | We started on a sanitization process two years ago regarding the infrastructure in Amchit, but unfortunately it stopped due to budget restraints from the state. The water management is not yet on the applicable and serviceable level in the village. Moreover, the electricity that we all face as a constraint too.   |

| C6.2. What are the biggest problems in this regard?  |   |
|--|---|
| B7.1. Which types of public transportation means are available in this village?                                    | The public transportation (Taxis and Service).  |
| B7.2. And do you have any traffic issues?  |   |
| B8.1. Who provides the law enforcement in the village?   | The municipality that maintains the safety of its citizens with an available application online to report an accident anyone faces or encounters. So basically, the municipality that plays and provides the law enforcement in the village.  |
| B8.2. And how do you estimate the level of crime in this village?  |   |
| B9. Who are the main players in public safety issues ?  (e.g. fire, earthquake, coastal flood, maritime accidents) | The first association that plays a huge role is the army foundation that intervenes in safety issues. Then we have the Red Cross as well as the civil defense services, prolonging with the help of the municipality too. Moreover, the personal initiative which locals provide for each other that is very important and basic. |
| B9.a. How many centers are available?  | We don't have centers in Amchit but in Jbeil which is few blocks away from Amchit.  |
| B9.b. How fast and qualified is aid normally administered by those players?  | Highly qualified and fast aided, in five minutes Red Cross services will be available.  |
| B9.c. Are there fire engines, ambulances and hospitals in this village?  |   |
| B10.1. What are the forms of communication used by people in your community?                                       | Of course the mobile phones and nowadays Lebanese people are too attached and tied to their cellphones.   |
| B10.2. And what problems connected with communication services are typical for your community?                     | No problems in this regard.   |

| <b>B11.1.</b> What are the historical and cultural sites available in your village?   | We have cultural sites in Amchit like the old architectural design in the village, and the heritage neighborhood that we take good care of following the old churches in our village. As well as the old port originated here.                              |  |
|---|---|--|
| <b>B11.2.</b> Where are they located?   | The old heritage neighbourhood is located from El Seha until the Seyde area.  |  |
| <b>B11.3.</b> what traditions and customs still exist in your community?  | People love each other in Amchit and we're famous in palms (Nakhil) because they used to come from islands in Arabia and gather under the palm trees. We have a beautiful beach as well as Army barracks nearby. Regarding traditions, we don't have a lot. |  |
| P. ECONOMY AND LIVELIHOOD  E.   |   |  |
| D1. What are the main economic drivers, or the main work sectors available in this village?  (Note to interviewer: please try to ask for percentages)     | We have centers and stations for oil storages like the IPT, Universal and TOTAL. Also, factories and some of craftsmanship and industrial works. However, Amchit is considered as an industrial, demographic, and touristic zone.                           |  |
| D2. What is the percentage of formal vs. informal businesses in this village?   | All formal businesses are licensed and registered in the village.   |  |
| D3.1. What are specifically the businesses available on the shore line?   | Small industrial work, oil storages, and small motels.  |  |
| D3.2. And who are engaged in those businesses?  |   |  |
| (Note to interviewer: please ask for profiles not names)  |   |  |
| D4.1. Do you have any port in this village?   | ☑ Yes □ No  |  |
| D4.2. If yes, by whom it is managed? Used? and for what purposes?   | Cooperative fishermen manage the port by the sea. There is a law for cooperatives used under the supervision of the Director of Transport for protocols of the port.  |  |
| D5. What is the percentage of employed vs. unemployed individuals in this village?  | Around ten percent unemployed individuals however the rest are employed in Amchit.  |  |
| D6. What are the employment rates distributed across sectors?   | Mainly in business sector as well as small businesses like banks for example.   |  |
| D7. What are the main reasons behind unemployment in your community?  | Mostly the lack of decentralization like having different branches around the city for further transport facilitations.   |  |
| D8. Which section of the population is most affected by unemployment?  (graduates, young people, people in the right age to work, retired persons, women, | Fresh graduates that are graduating from universities are not finding jobs briefly. However, the poor sections that can't interfere in any businesses other than the agricultural ones are the most affected also.  |  |
| men, people of what nationality, former military people, refugees, etc.)  |   |  |

| D9.1. How do you describe the tourism in your village?   |  |  |
|--|--|--|
| D9.2. What are the main touristic sites and activities? Where are they? Do you have any coastal or marine tourism? | We don't depend on the marine tourism here in Amchit because we don't have touristic facilities around.  |  |
| D10. How dependent is this village on tourism/ marine tourism? Please describe.                                    |  |  |
| D11. What are the main issues in the village?  | We don't encounter major issues because the Lebanese citizens are self-sufficient in living. Except for some Syrian people that caused a small hit to Amchit's locals in few jobs like handcrafting. |  |
| Q. ENVIRONMENT AND NATURAL RESOURCE USE  |  |  |
| E1. What are the natural resources available in this village?  | We don't have any natural resources but we do have fisheries and fish available.   |  |
| E2.1. Who are the parties managing those natural resources?  | Of course by fishermen.  |  |
| E3.a. Please describe briefly the climate  | Amchit is a coastal city however its area is five kilometers per square. The climate is moderate in both season's winter and summer.   |  |

| E3.b. Please describe briefly the air quality   | The air is southwestern but the air is polluted across Lebanon mainly.                     |
|---|--|
| E3.c. Please describe briefly the water quality   | We get water from Afqa in Jbeil that is conveyed to Amchit.                                |
| <b>E4.1.</b> Are there any local organization engaged in environmental matters in this village?   | No   |
| E4.2. What are their roles exactly?   |  |
| E5. Are there any industrial which affect the environment and natural resources of this village?  (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) | No   |
|   | R. CLOSING   |
| F1. Do you have any question or issue that you would like to raise?   |  |
| F2. Are there any stakeholders that you may recommend us to also talk with?   | IPT companies might help; they are working in an association for exporting oil with TOTAL. |

| TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE - STAKEHOLDERS – MUNICIPALITY OFFICIALS |  |                            |            |
|--|--|----------------------------|------------|
| Location of Interview: (Village/Caza/Block Number):  | Jbeil, Jbeil, Block 4  | Date of the interview:     | 22/05/2019 |
| Name of interviewee:   |  |                            |            |
| Interviewee Gender :   | Male   |                            |            |
| Interviewee Position :   | Head of Municipality   |                            |            |
| Name of Interviewer :  | Antonio Chitti   |                            |            |
| Notes  | Please introduce the oil drilling activities using the BIDs and posters and give the participants an opportunity for questions and answers |                            |            |
| THEME 1 – STAKEHOLDER ENGAGEMENT AND IMPACT ASSESSMENT DEMOGRAPHICS  |  |                            |            |
| Q1. What do you exactly know about the oil drilling operations which are going to take place in this area?       | No, not really I'm sorry; I'm n  | ot familiar with this subj | ect.       |
| Q2. Now, do you have questions?  |  |                            |            |

| S. BACKGROUND  DEMOGRAPHICS  |   |
|--|---|
| A1. Please tell me briefly how long have you been head of/working with this municipality, and what is your current role?   | Two years for now and this is my role.  |
| T. DEMOGRAP<br>U. DEMOGRAPHICS   | HIC CHARACTERISTICS AND COMMUNITY STRUCTURE   |
| B1.a. Could you tell us about the population in your village:  |   |
| What is the total number of inhabitants? (Note to interviewer: if possible please ask for distribution: percentages by gender and age groups ( 18, or youth vs. adults vs. elderly)) | Approximately 35,000 individuals.  Interviewer: Do you have a specific percentage of distribution between males and females?  No, we never did such a study.  |
| B1.b. Who do you identify as vulnerable in your community?   | Not Asked   |
| <b>B1.c.1.</b> Is there any cultural diversity?  | ☐ Yes ☐ No  |
| B1.c.2. If yes, please describe what is the diversity?  (Note to interviewer: please identify who)   | What do you mean by cultural diversity?  Interviewer: Do you have people from different backgrounds, people who are literate, illiterate, those who are from different religions and belong to different cultures?  Jbeil includes people from all religions. Here the church is right next to the Mosque. We have Sunnite, Shia, Maronite, Roum, Armenians and the municipal council is represented by all. This area is the meeting point of different civilizations, and most of the ambassadors visit it regularly. It is a prominent touristic area. |
| <b>B1.d.</b> Are there different religious beliefs in this village?  |   |
| (Note to interviewer: please ask for percentages if possible)  | Not Asked   |

| B2.1. Who are the important leaders in the village?   | The Deputies of this area mainly. Especially now that we have a deputy from Jbeil instead of Ziad Hawat, and we consult him on different topics. After all, he was the head of municipality for 7 years in the past and he has all the necessary experience.   |
|---|--|
| B2.2. What are their roles and how decisions are made?  (Note to interviewer: please probe into mayors, religious figures, policemen, teachers) | Not Asked  |
| ·   | SOCIAL SERVICES AND INFRASTRUCTURE   |
| C1. How many schools and universities are available in your village ( specify primary/secondary etc)?   | We have the Lebanese American University which is in Blat, an area right next to us, and not in Jbeil. As for schools, we have many. The city includes 15,000 students because they come from all areas within this Caza and study here in Jbeil.  Interviewer: This means that there are five to six schools within Jbeil?  Perhaps more, about seven schools varying between private and public. |
| C2.1. Are you satisfied with the educational level of the inhabitants of this village?  | The success rate is really high.   |
| C2.2. Who are the least vs. most educated/ skilled people in your village?  (Note to interviewer: please ask about profiles not names).         | The youth are the most educated today. The education level of our parents and ancestors is way lower than that of today in the city.   |

| C3. In your opinion, what problems do the education system in your community face?   | The curriculum. All the curriculums need to be changed.  |
|--|--|
| C4.1. Which healthcare facilities are available in this village? And which type of care do they provide  | We have the biggest hospital in Lebanon; Al Maounat Hospital. Before, when we had none, we used to suffer greatly especially with patients with chronic diseases who need regular care and hospital visits. We are blessed to have such a hospital because it responded to the needs of the area and surroundings. Moreover, we have the Maritime Hospital which we consider as our home. These two hospitals are within our geographical boundaries and belong to this city.  Interviewer: Do you have any medical clinics?  No not really, because we already have huge hospitals. |
| C4.2. And which type of care do they provide? (e.g. acute care, preventive, immunization etc.)?  | Not Asked  |
| C5. What illnesses are most prevalent in your community?   | I don't really have an answer. I've never received any feedback concerning a prevalent illness in the city.  |
| C6.1. How would you describe the infrastructure and facilities serving this community?  (e.g. buildings, roads, power supplies, sanitation and waste management) | We were in need of a proper sewage system and which we did. You may see a drainage plant in the waters fully funded by an Italian company but we haven't launched it yet. We finalized the necessary infrastructure and thus we are supposed to launch it in the upcoming year.  |
| C6.2. What are the biggest problems in this regard?  | Not Asked  |
| B7.1. Which types of public transportation means are available in this village?  | We now have a huge transportation project which provides buses for the whole Caza.  Interviewer: As for now, taxis and buses are available right?  Yes of course.  |
| B7.2. And do you have any traffic issues?  | Yes definitely, we have many traffic issues mainly on the 22nd of each month where people head towards Saint Charbel Annaya.   |

| B8.1. Who provides the law enforcement in the village?   | The municipality. We cooperate regularly with the security forces in certain issues.  Interviewer: But the municipality provides the law enforcement in the village? Yes it does.  |
|--|--|
| B8.2. And how do you estimate the level of crime in this village?  | Not Asked  |
| B9. Who are the main players in public safety issues ?  (e.g. fire, earthquake, coastal flood, maritime accidents) | The municipality, in addition to the Civil Defense and the Red Cross. The city of Jbeil is a part of Rockefeller Foundation and among the 100 resilient cities in the world. We initiated a project to limit, withstand, and avoid disasters and we have the Municipal council who takes care of this. |
| B9.a. How many centers are available?  | Yes. Interviewer: How many are they? One Civil Defense Center and one Red Cross.   |
| B9.b. How fast and qualified is aid normally administered by those players?  | They are great.  |
| B9.c. Are there fire engines, ambulances and hospitals in this village?  | The Civil Defense Center has five fire engines, and the Red Cross here has six to seven ambulances in total.   |
| <b>B10.1.</b> What are the forms of communication used by people in your community?                                | Via social media which is mostly prevalent today, in addition to WhatsApp and phone calls.   |
| <b>B10.2.</b> And what problems connected with communication services are typical for your community?              | We are currently installing fiber optic cables for the Internet which we have some problems with.  |
| B11.1. What are the historical and cultural sites available in your village?                                       | Jbeil Castle which is 1200 years old. In addition to the Souq of Jbeil, the restaurants, the port of Jbeil, the churches and the Mosques. This city is one of the most important touristic destinations.   |
| B11.2. Where are they located?   | Not Asked  |

| B11.3. what traditions and customs still exist in your community?   | Fishing for the fishermen and anglers. There still exists affection among people where I can assure you that we all know each other and provide all the support and sympathy when needed whether in happy or sad events.   |
|---|--|
| F.  | V. ECONOMY AND LIVELIHOOD  |
| D1. What are the main economic drivers, or the main work sectors available in this village?  (Note to interviewer: please try to ask for percentages) | Restaurants. Interviewer: You mean the hospitality sector? Yes mainly.   |
| D2. What is the percentage of formal vs. informal businesses in this village?   | I don't have a specific percentage but all the businesses are formal and legal. To sign a leasing contract, the company must have a commercial registration number.  |
| D3.1. What are specifically the businesses available on the shore line?   | Touristic resorts. We don't have any factories as this city is not industrial.   |
| D3.2. And who are engaged in those businesses?  (Note to interviewer: please ask for profiles not names)  | Not Asked  |
| D4.1. Do you have any port in this village?   | ☐ Yes ☐ No   |
| D4.2. If yes, by whom it is managed? Used? and for what purposes?   | It is managed by the Ministry of transportation, in addition to a manager and some security forces who control the entrances and exits. It is mainly used for fishing and as "Taxi", by which we mean that we pick up tourists from there, give them a tour in the sea, and return them there when finished. |
| D5. What is the percentage of employed vs. unemployed individuals in this village?  | I don't have an answer but the unemployment rate here is not that high. To do such a study you have to perform it on a larger scale including the whole country. Once done, the percentage you have in whole country (20 percent for instance) is the same as that in the city of Jbeil.                     |
| D6. What are the employment rates distributed across sectors?   | Not Asked  |

| D7. What are the main reasons behind unemployment in your community?   | Level of education in the universities. Universities today are aiming towards increasing the number of graduates. This issue needs a proper educational system and the Lebanese government should specify each year the number of engineers, doctors, lawyers, teachers, computer engineers, and business graduates needed to fulfill the demand in the market. The universities should limit their number of graduates based on the latter. |
|--|--|
| D8. Which section of the population is most affected by unemployment?  (graduates, young people, people in the right age to work, retired persons, women, men, people of what nationality, former military people, refugees, etc.) | People who have no "Wasta" and are unable to enroll their children in private universities for unfortunately, the Lebanese University has no branches here in Jbeil. It is so difficult for someone living here to go to any of the available branches of the Lebanese University.   |
| D9.1. How do you describe the tourism in your village?   | Excellent. The Minister of Tourism was here yesterday and assured that we are the Number one touristic destination in Lebanon. Jbeil Castle welcomes around 100,000 to 150,000 visitors annually, 10,000 visitors a month in average.  |
| D9.2. What are the main touristic sites and activities? Where are they? Do you have any coastal or marine tourism?   | Yes, we have marine tourism and our proximity to the mountains is a key asset in tourism here.   |
| D10. How dependent is this village on tourism/ marine tourism? Please describe.  | Fully dependent. All our revenues come from tourism and trade.   |
| D11. What are the main issues in the village?  | Traffic. The city is welcoming a number of visitors which is greatly higher that its ability to compass. Thus we are trying to come up with initiatives to face this challenge.  |
| W.EN   | NVIRONMENT AND NATURAL RESOURCE USE  |
| E1. What are the natural resources available in this village?  | No   |
| E2.1. Who are the parties managing those natural resources?  | We don't have any.   |
| E3.a. Please describe briefly the climate  | The climate is good.   |
| E3.b. Please describe briefly the air quality  | Very good air quality.   |
| E3.c. Please describe briefly the water quality  | Very good water quality.   |

| E4.1. Are there any local organization engaged in environmental matters in | There are a number of NGO's and our main focus as a municipal council is the |  |
|--|--|--|
| this village?  | environment.   |  |
| E4.2. What are their roles exactly?  | Our main theme is the environment.   |  |
| E5. Are there any industrial which   |  |  |
| affect the environment and natural   |  |  |
| resources of this village?   | No, we don't have factories.   |  |
| (e.g. airborne, waterborne, solid waste,                                   | ivo, we don't have factories.  |  |
| noise) or natural hazards (e.g.  |  |  |
| earthquakes, floods)   |  |  |
| X. CLOSING   |  |  |
| <b>F1.</b> Do you have any question or issue                               |  |  |
| that you would like to raise?  | No.  |  |
| F2. Are there any stakeholders that you                                    |  |  |
| may recommend us to also talk with?  | No, I don't know.  |  |
|  |  |  |
| ADDITIONAL NOTES   |  |  |
|  |  |  |

• Stakeholder was very cooperative and interested in the subject, however his main concern was not to harm the tourism of Jbeil and pollute the sea. He also requested and insisted on having a direct contact or means of communication between the municipality and the ship itself in case of any accident or emergency.

#### **TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE - STAKEHOLDERS - MUNICIPALITY OFFICIALS Location of Interview:** Fidar, Jbeil, Block Number 4 Date of the interview: Thursday 23/05/2019 (Village/Caza/Block Number): Name of interviewee: Interviewee Gender: Male **Interviewee Position:** Head of Municipality Name of Interviewer: Antonio Chitti Please introduce the oil drilling activities using the BIDs and posters and give the participants an Notes opportunity for questions and answers THEME 1 - STAKEHOLDER ENGAGEMENT AND IMPACT ASSESSMENT **DEMOGRAPHICS**

| Q1. What do you exactly know about the oil drilling operations which are going to take place in this area?   | We have heard about it just like everyone. It will increase tourism in Lebanon, provide more money, as well as an increase in the budget of the Lebanese Government.  Interviewer: But don't you have any idea about the procedures taken, how will the oil drilling be conducted, or even who will be involved?  We've read the newspapers and heard the politicians say that European companies have won the bid and will be managing the project. We also heard that they will be starting here in Safra. |
|--|--|
| Q2. Now, do you have questions?  | No, all is clear.  |
| DEMOGRAPHICS   | Y. BACKGROUND  |
| A1. Please tell me briefly how long have you been head of/working with this municipality, and what is your current role?   | I've been the head of municipality for 3 years from now, 15 <sup>th</sup> of May, and that is my role.   |
| Z. DEMOGRAF  | PHIC CHARACTERISTICS AND COMMUNITY STRUCTURE  AA. DEMOGRAPHICS   |
| <b>B1.a.</b> Could you tell us about the population in your village:   |  |
| What is the total number of inhabitants? (Note to interviewer: if possible please ask for distribution: percentages by gender and age groups ( 18, or youth vs. adults vs. elderly)) | 4000 individuals in average.  Moderator: Do you have a specific percentage of distribution between males and females?  No, you have to ask the head of the village "Mokhtar" [Sarcastically]   |
| B1.b. Who do you identify as vulnerable in your community?   | No not really, perhaps we can say that most of the people in the village are from the middle class and we don't have any problems as such.   |
| <b>B1.c.1.</b> Is there any cultural diversity?  | ☐ Yes ☐ No   |
| B1.c.2. If yes, please describe what is the diversity?  (Note to interviewer: please identify who)   | Yes of course, There is.   |

| B1.d. Are there different religious beliefs in this village?  (Note to interviewer: please ask for percentages if possible)                     | Very rare, almost 15 persons that belong to the Sunnite and Shia religion  Interviewer: This means that the majority are Christians constituting 90 Percent.  Yes.  Interviewer: The others constitute the remaining ten percent or less?  Ten individuals and not ten percent. |  |
|---|---|--|
| <b>B2.1.</b> Who are the important leaders in the village?  | We have Dr. Francois Bassil, Owner of Byblos Bank and the president of the Banks' Association as well as many officers and Deans.   |  |
| B2.2. What are their roles and how decisions are made?  (Note to interviewer: please probe into mayors, religious figures, policemen, teachers) | Interviewer: Do you consult them or refer to their opinions concerning issues related to the area?  We take into consideration everyone's opinion, but in the end, the municipality issues the final decision.  |  |
| K. SOCIAL SERVICES AN   | ND INFRASTRUCTURE   |  |
| C1. How many schools and universities are available in your village ( specify primary/secondary etc)?   | We have one official school, in addition to AUT university and Don Bosco technical school.  Interview: Is the school primary or secondary?  Primary School.   |  |
| C2.1. Are you satisfied with the educational level of the inhabitants of this village?  | Yes it is acceptable.   |  |
| C2.2. Who are the least vs. most educated/ skilled people in your village?  (Note to interviewer: please ask about                              | The generations are constantly changing. 20 years ago, education wasn't very common among people. Whereas now, there exists more balance and most   |  |
| profiles not names).  C3. In your opinion, what problems do the education system in your community face?  |   |  |
| C4.1. Which healthcare facilities are available in this village? And which type of care do they provide   | None.  None exist in Fidar, however, we have many close hospitals in the surroundings and thus there is no need for ones in Fidar.  |  |

| C4.2. And which type of care do they provide?  (e.g. acute care, preventive, immunization                          | Not Asked.   |  |  |
|--|--|--|--|
| etc.)?  C5. What illnesses are most prevalent  |  |  |  |
| in your community?   | Cancer   |  |  |
| C6.1. How would you describe the infrastructure and facilities serving this community?                             | The infrastructure that we have here in Fidar is excellent.  With the failure of the Lebanese government to comply with standards, our village is very organized and one of the best in Lebanon. Yet, we do have a   |  |  |
| (e.g. buildings, roads, power supplies, sanitation and waste management)   | problem in the sewage system just like the rest of the municipalities. We wish to be like the European Countries, yet it only remains a dream.   |  |  |
| C6.2. What are the biggest problems in this regard?  | Of course there is. For instance, the chaos and inorganization of the permits given as well as all the issues related to the old buildings where we have to deal with them in a primitive kind of way.   |  |  |
| B7.1. Which types of public transportation means are available in this village?                                    | Now, there is a new transportation project that started in the City of Jbeil and we are a part of it because we offered them two stops. However, Fidar is a coastal village where many buses and taxis pass by and are always available hence why we don't need much. We don't usually face any problems regarding transportation. |  |  |
| <b>B7.2.</b> And do you have any traffic issues?   | No.  |  |  |
| <b>B8.1.</b> Who provides the law enforcement in the village?  | The Municipality.  |  |  |
| <b>B8.2.</b> And how do you estimate the level of crime in this village?   | Not Asked  |  |  |
| B9. Who are the main players in public safety issues ?  (e.g. fire, earthquake, coastal flood, maritime accidents) | We are in direct contact with the Civil Defense association and the Red Cross, and we have our own police in the village.  |  |  |
| B9.a. How many centers are available?  | No. They have in Jbeil.  |  |  |
| B9.b. How fast and qualified is aid normally administered by those players?  | Yes, they are fast and respond to anyone in need immediately.  |  |  |
| B9.c. Are there fire engines, ambulances and hospitals in this village?  | Not Asked.   |  |  |

| B10.1. What are the forms of  | Messages and WhatsApp.   |  |  |
|---|--|--|--|
| community?  |  |  |  |
| <b>B10.2.</b> And what problems connected with communication services are typical for your community?   | No.  |  |  |
| <b>B11.1.</b> What are the historical and cultural sites available in your village?   | Monuments' Tower.  We have a monumental tower as well as an old bridge and river.  There exists an old mill besides the existing churches that are very old.   |  |  |
| B11.2. Where are they located?  | They are all located on the coast mainly.  |  |  |
| B11.3. what traditions and customs still exist in your community?   | Sports clubs and country evenings.  Interviewer: But what are the traditions that were and are still present today?  No we don't have any.   |  |  |
| BB. ECONOMY AN  | D LIVELIHOOD   |  |  |
| D1. What are the main economic drivers, or the main work sectors available in this village?  (Note to interviewer: please try to ask for percentages) | Agriculture which adds to the village's production as well as tourism.  Interviewer: Do you mean that agriculture comes in the first place followed by tourism? Or does it depend on the seasons?  Yes it does depend on seasons and they are both part of the public sector. In the end people are involved in different fields and have various jobs.  Interviewer: Can you specify a certain percentage?  The village is considered to be average and every individual takes care of his/her own household. |  |  |
| D2. What is the percentage of formal vs. informal businesses in this village?   | I cannot specify a percentage; however there exist approximately 20 factories and companies in total.  But they are all registered and have legal presence.  Yes.  |  |  |
| D3.1. What are specifically the businesses available on the shore line?   | Touristic chalets, restaurants, and pools.  Interviewer: Mainly everything related to the hospitality sector right?  You are referring to the ones located on the coast?  Interviewer: Yes exactly.  |  |  |
| D3.2. And who are engaged in those businesses?  | Not Asked  |  |  |
| (Note to interviewer: please ask for profiles not names)  |  |  |  |

|  | □ Yes □ No   |  |  |
|--|--|--|--|
| D4.1. Do you have any port in this village?  | We have the Halat Sur Mer Port.  Interviewer: Is it in Fidar?  Yes  Yes, more than half of it is in Fidar.   |  |  |
| D4.2. If yes, by whom it is managed? Used? and for what purposes?  | It is privately held and managed by their owners.  Interviewer: And what do they use it for?  For tourism.   |  |  |
| D5. What is the percentage of employed vs. unemployed individuals in this village?   | 60 percent are employed.  Interviewer: The remaining 40 percent are all unemployed?  Not all, some are still studying perhaps.  An easier question may be whether we have unemployed individuals or not and we do not have any.  |  |  |
| D6. What are the employment rates distributed across sectors?  | The coastal projects and the industrial factories that we have.  Interviewer: But which sector has the highest employment rate? Is it the industry one?  The coastal projects hire our local people whereas the industries hire different people from different areas because the job is tougher and the wages are less. Perhaps they hire foreigners in such cases.         |  |  |
| D7. What are the main reasons behind unemployment in your community?   | Interviewer: You mentioned that you don't have unemployed people.  No we don't.  People are majoring in fields that are not really demanded. For example, if the market needs Aluminum specialists, they major in electrical engineering instead. We are being replaced by foreigners in certain jobs.  The majors today are oriented towards limited fields which is wrong. |  |  |
| D8. Which section of the population is most affected by unemployment?  (graduates, young people, people in the right age to work, retired persons, women, men, people of what nationality, former military people, refugees, etc.) | The fresh graduates are mainly suffering.  |  |  |
| D9.1. How do you describe the tourism in your village?   | Excellent.   |  |  |
| D9.2. What are the main touristic sites and activities? Where are they? Do you have any coastal or marine tourism?   | Fidar's Tower.  Interviewer: Where is it located? On the coast.  Interviewer: Do you have any coastal or marine tourism? No.   |  |  |

| D10. How dependent is this village on tourism/ marine tourism? Please describe.                  | It does not rely on the tourism. It relies on the revenues of the touristic projects and factories.   |  |  |
|--|---|--|--|
| D11. What are the main issues in the village?  | There are no issues.  |  |  |
| CC.  | ENVIRONMENT AND NATURAL RESOURCE USE  |  |  |
| E1. What are the natural resources available in this village?                                    | No, only agriculture, Bananas in specific.  |  |  |
| <b>E2.1.</b> Who are the parties managing those natural resources?                               | Land owners.  Interviewer: Are they the only ones who benefit from them?  They benefit as well as people who work for them, and the ones who sell and buy their products respectively.  |  |  |
| E3.a. Please describe briefly the climate  | The summer season lasts for eight months whereas winter is four months long. Some humidity exists on the coast. It is actually one of the best areas in Lebanon. Moderate climate.  |  |  |
| E3.b. Please describe briefly the air quality  | Good air quality.   |  |  |
| E3.c. Please describe briefly the water quality  | The quality of water is good sourcing from Afqa.  |  |  |
| <b>E4.1.</b> Are there any local organization engaged in environmental matters in this village?  | No we don't have any.   |  |  |
| E4.2. What are their roles exactly?  | Not Asked   |  |  |
| E5. Are there any industrial which affect the environment and natural resources of this village? | N   |  |  |
| (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods)    | No.   |  |  |
| DD. CLOSING  |   |  |  |
| F1. Do you have any question or issue that you would like to raise?                              | Are you visiting all the municipalities on the coastal line?  Interviewer: Yes  And do you repeat all those explanations?  Interviewer: Yes  Why don't you record them instead of repeating each time?  Interviewer: We only record to write our final report.  Interviewer: Are there any questions else?  No, you are good at this. |  |  |

### F2. Are there any stakeholders that you may recommend us to also talk with?

I did mention at the beginning of this interview that i would appreciate if all the coastal municipalities can benefit equally and refer to them when need of any chalets, hotels, car rentals, and restaurant. What's important is not to prioritize any political party over the other. This is my honest opinion and im not yet sure whether this project will benefit the shore or damage it, thus let everyone benefit from its revenues in a fair way. We have over 600 chalets that we pay taxes for and i, as the head of the municipality, would really prefer to use some instead of only relying on those in Batroun and Jounieh for example.

#### **ADDITIONAL NOTES**

Stakeholder's main concern was the equal distribution of benefits and revenues in between the coastal
municipalities. He admires his village and is concerned about the result of this project, yet what he cares
most about is the benefit of Fidar from this project and how will it reflect on its economy and resources.
He requested at the beginning more brochures to be distributed on people who might have inquiries are
may be more knowledgeable about this subject.

## TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE - STAKEHOLDERS — MUNICIPALITY OFFICIALS

| Location of Interview: (Village/Caza/Block Number):  | Metn/Dbaye/ Block 4  | Date of the interview :                         | Thursday 23/05/2019          |
|--|--|---|------------------------------|
| Name of interviewee:   |  |   |                              |
| Interviewee Gender :   | Male   |   |                              |
| Interviewee Position :   | Head of municipality   |   |                              |
| Name of Interviewer :  | Antonio Chiti  |   |                              |
| Notes  | Please introduce the oil drilling opportunity for questions and a  | activities using the BIDs and posters<br>nswers | and give the participants an |
|  | A. BACKGR  | OUND  |                              |
|  | DEMOGRAP   | HICS  |                              |
| A1. Please tell me briefly how long have you been head of/working with this municipality, and what is your current role?   | I have been the deputy mayor for 15 years, since 2004.   |   |                              |
| B. DEMOGRA   | B. DEMOGRAPHIC CHARACTERISTICS AND COMMUNITY STRUCTURE   |   |                              |
|  | C. DEMOGR  | APHICS  |                              |
| B1.a. Could you tell us about the population in your village:  |  |   |                              |
| What is the total number of inhabitants? (Note to interviewer: if possible please ask for distribution: percentages by gender and age groups ( 18, or youth vs. adults vs. elderly)) | 50 000, 60 000 population.<br>No study has been made rega  | arding the gender percentage                    |                              |
| B1.b. Who do you identify as vulnerable in your community?   | No one is marginalized; everybody is surrounded and taking care off. Very few even a neglecting number of people can be considered as vulnerable |   |                              |
| <b>B1.c.1.</b> Is there any cultural diversity?  | □√Yes □No  |   |                              |
| B1.c.2. If yes, please describe what is the diversity?  (Note to interviewer: please identify who)   | Cultural diversity and it's incre  | easing due to urbanization.                     |                              |
| B1.d. Are there different religious beliefs in this village?  (Note to interviewer: please ask for percentages if possible)  | Not really, around 95% are Cosmall percentage).  | nristians and the rest are mixe                 | ed of other religion (very   |

| <b>B2.1.</b> Who are the important leaders in the village?   | We don't have deputies but there is the local authority such as the mayor, there's also many people that you can take their opinion and can be listed as references such as the presidential advisor and others.  |  |  |
|--|---|--|--|
| <b>B2.2.</b> What are their roles and how decisions are made?  |   |  |  |
| (Note to interviewer: please probe into mayors, religious figures, policemen, teachers)  |   |  |  |
| (  | C. SOCIAL SERVICES AND INFRASTRUCTURE   |  |  |
|  | D.  |  |  |
| C1. How many schools and universities are available in your village ( specify primary/secondary etc)?  | There's 2 academic private schools (Armenian school and St. Rita school), also 2 public schools under the same location but divided into 2 different entities (elementary and secondary). Also some technical schools such as the American center for language and technical education.  There are no available universities. |  |  |
| C2.1. Are you satisfied with the educational level of the inhabitants of this village?   | Highly satisfied and we are asking the residents to deviate through professional education such as painting for example because today everybody is choosing the engineering and other careers that it become highly saturated and missing professions.  |  |  |
| C2.2. Who are the least vs. most educated/ skilled people in your village?   | Youth are more educated for sure.   |  |  |
| (Note to interviewer: please ask about profiles not names).  |   |  |  |
| C3. In your opinion, what problems do the education system in your community face?   | Its known all over Lebanon not only in Dbaye, especially in the schools and universities that the education main issue is related to the financial aspect   |  |  |
| C4.1. Which healthcare facilities are available in this village? And which type of care do they provide  | The foundary line the hospital of the and that the hospital of two diffics of the   |  |  |
| C4.2. And which type of care do they provide? (e.g. acute care, preventive, immunization etc.)?  | [Not answered]  |  |  |
| C5. What illnesses are most prevalent in your community?   | There's no access of illness everybody can get sick at the end , there's no epidemic in Dbayeh  |  |  |
| C6.1. How would you describe the infrastructure and facilities serving this community?  (e.g. buildings, roads, power supplies, sanitation and waste management) | The infrastructure is up to date; the power grid is completed also the sewage is completed don't find wholes on the road.   |  |  |
| C6.2. What are the biggest problems in this regard?  | But our main issue is by the sea because it's not related to the municipality we are in need for refining plants because the sewage is directly on the beach.   |  |  |

| <b>B7.1.</b> Which types of public transportation means are available in this village?                             | The main transportation are the Taxis and there's no public transportation such as bus  |  |  |
|--|---|--|--|
| B7.2. And do you have any traffic issues?  | Yes, there are a lot of traffic issues, especially on the holidays taking into consideration the amount of malls available. Also Dbayeh is the access point to arrive to "Metn".  We are trying to open other side roads but the amount of cars available is greater than the capacity. |  |  |
| B8.1. Who provides the law enforcement in the village?   | Everyone according to its job: the municipality, security force (we have the biggest security force centers), army, each party is doing what is required based on the Lebanese regulation.  |  |  |
| B8.2. And how do you estimate the level of crime in this village?  | Almost null, around zero. We are a friendly environment.  |  |  |
| B9. Who are the main players in public safety issues ?  (e.g. fire, earthquake, coastal flood, maritime accidents) | First of all, the municipality and the security forces. We don't have a center for civil defense nor for red cross but there's near in Jdeideh and Antelias that we can depend on.  |  |  |
| B9.a. How many centers are available?  | [Not answered]  |  |  |
| B9.b. How fast and qualified is aid normally administered by those players?  | The red cross is highly known for being fast.   |  |  |
| B9.c. Are there fire engines, ambulances and hospitals in this village?  | Not in the village but near.  |  |  |
| B10.1. What are the forms of communication used by people in your community?                                       | Just like everyone else, the people highly depend on their cellphones and the social media application (such as WhatsApp), computers.   |  |  |
| B10.2. And what problems connected with communication services are typical for your community?                     | Not related to the validity of the municipality but you can say that the communication is well covered  |  |  |
| B11.1. What are the historical and cultural sites available in your village?                                       | Nahr El Kalb is the most known site, in addition to some old churches and religious sites   |  |  |
| B11.2. Where are they located?   |   |  |  |
| <b>B11.3.</b> what traditions and customs still exist in your community?   | Dbayeh used to be an agricultural area, but today with the urban expansion most of the gardens demolished. But the old customs are no longer available  |  |  |
|  | D. ECONOMY AND LIVELIHOOD   |  |  |

| C.   |  |  |
|--|--|--|
| D1. What are the main economic drivers, or the main work sectors available in this village?  (Note to interviewer: please try to ask for percentages)  | Everything, mostly the commercial and service sector. Malls and hotels are available (ABC, le royal,) and we have been told that the new Water front Project will include also a mall. ( We can say that the hospitality sector is promising )Also you can find also hospitals, television (such as the Mtv) |  |
| D2. What is the percentage of formal vs. informal businesses in this village?  | We don't know exactly who is registered in the state but we as municipality assign an amount of registration and all the companies are included.   |  |
| D3.1. What are specifically the businesses available on the shore line?  | The Dbayeh port, the security forces have their location on the shore line and the marina  |  |
| D3.2. And who are engaged in those businesses?  (Note to interviewer: please ask for profiles not names)   | [Not answered]   |  |
| D4.1. Do you have any port in this village?  | √□ Yes □ No  |  |
| D4.2. If yes, by whom it is managed? Used? and for what purposes?  | Managed by cooperative Mina used for fishing and for outing purposes   |  |
| D5. What is the percentage of employed vs. unemployed individuals in this village?   | We don't have accurate statistics but approximately around 70% are employed  |  |
| D6. What are the employment rates distributed across sectors?  | [Not answered]   |  |
| D7. What are the main reasons behind unemployment in your community?   | The recession is the main reason, the current situation of the country   |  |
| D8. Which section of the population is most affected by unemployment?  (graduates, young people, people in the right age to work, retired persons, women, men, people of what nationality, former military people, refugees, etc.) | Mainly the middle class and the poor   |  |
| D9.1. How do you describe the tourism in your village?   | We can say that it's good especially the night life including restaurants and pubs, in addition to the hotels available you can find tourists in this area in some seasons.  |  |
| D9.2. What are the main touristic sites and activities? Where are they? Do you have any coastal or marine tourism?   | We have the visit of Nahr El Kalb in addition to the restaurants and the hotels, and they are mainly located on the coats.  We have the port in which some people can gather and go on a group trip.   |  |
| D10. How dependent is this village on tourism/ marine tourism? Please describe.  | Mostly the traffic especially on peek time (morning and afternoon) in addition to the classical problems facing most Lebanese areas  |  |
| D11. What are the main issues in the village?  |  |  |

| E. ENVIRONMENT AND NATURAL RESOURCE USE   |  |  |  |
|---|--|--|--|
| E1. What are the natural resources available in this village?   | We have the water company that distributes the water for Beirut area, the main factory that gets the water is from Jeita.  |  |  |
| E2.1. Who are the parties managing those natural resources?   | Everyone is benefitting, the water company gives water across Beirut   |  |  |
| E3.a. Please describe briefly the climate   | Four seasons, moderate especially that we are on the shore.  |  |  |
| E3.b. Please describe briefly the air quality   | There's no direct pollution, but we are close to some industries that may pollute the air. But we discussed this issue and after contacting them they put some filters on to reduce this effect. |  |  |
| E3.c. Please describe briefly the water quality   | The water quality is mainly good after being refined it can be used directly from the source.  |  |  |
| E4.1. Are there any local organization engaged in environmental matters in this village?  | No   |  |  |
| E4.2. What are their roles exactly?   | [Not answered]   |  |  |
| E5. Are there any industrial which affect the environment and natural resources of this village?  (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) |  |  |  |
|   | F. CLOSING   |  |  |
| F1. Do you have any question or issue that you would like to raise?   | On the base located on the port of workers are Lebanese or foreign? How much this work will affect the environmental pollution (percentage) based on worldwide classification?                   |  |  |
| F2. Are there any stakeholders that you may recommend us to also talk with?   |  |  |  |

# TOTAL E&P LIBAN OFFSHORE DRILLING, LEBANON KEY INFORMANT INTERVIEW GUIDE - STAKEHOLDERS — MUNICIPALITY OFFICIALS

| 011101/11  |  |   |  |
|--|--|---|--|
| Anfeh/4  | Date of the interview :  | 5/28/2019   |  |
| Head of Municipality   |  |   |  |
| Male   | Male   |   |  |
| Head of municipality, Profe  | essor at Balamand  |   |  |
| Wahib Izmiraghdi   |  |   |  |
| Please introduce the oil drilling activities using the BIDs and posters and give the participants an opportunity for questions and answers   |  |   |  |
| - STAKEHOLDER ENGAGEMENT   | AND IMPACT ASSESSMENT  |   |  |
| I was in the team that wrote The SEA of the oil and gas book and was responsible all the marine component in other terms everything related to the impact.   |  |   |  |
|  |  |   |  |
| A. BACKGROUND  |  |   |  |
|  |  |   |  |
| DEMOGRAPHICS   |  |   |  |
| A1. Please tell me briefly how long have you been head of/working with his municipality, and what is your current role?  Three years as head of municipality and a vice president before the current role? |  |   |  |
| B. DEMOGRAPHIC CHARACTERISTICS AND COMMUNITY STRUCTURE   |  |   |  |
| C. DEMOGRAPHICS  |  |   |  |
|  |  |   |  |
| 7,216 registered according to the records of souls (no accurate information regarding the gender and the age category) and 2500 Syrian (due to refugee camps)  |  |   |  |
|  | Head of Municipality  Male  Head of municipality, Profe  Wahib Izmiraghdi  Please introduce the oil drilling act opportunity for questions and answ  STAKEHOLDER ENGAGEMENT  I was in the team that wrote responsible all the marine of to the impact.  A. BACKGRO  Three years as head of mu  APHIC CHARACTERISTICS A  C. DEMOGRA  7,216 registered according | Head of Municipality.  Male  Head of municipality, Professor at Balamand  Wahib Izmiraghdi  • Please introduce the oil drilling activities using the BIDs and posters a opportunity for questions and answers  - STAKEHOLDER ENGAGEMENT AND IMPACT ASSESSMENT  I was in the team that wrote The SEA of the oil and responsible all the marine component in other term to the impact.  A. BACKGROUND  Three years as head of municipality and a vice present to the impact.  C. DEMOGRAPHICS  7,216 registered according to the records of information regarding the gender and the age cate |  |

| C. SOCIAL SERVICES AND INFRASTRUCTURE  D.   |  |
|---|--|
| (Note to interviewer: please probe into mayors, religious figures, policemen, teachers)                                     | But your council includes all the segments of the society except the "Aouniyi" but on a village scale they are all represented (Head of municipality agreed)   |
| B2.2. What are their roles and how decisions are made?  | The most powerful one is Farid Makkari but not because he's a relative of mine. Municipality and politics doesn't work.  |
| B2.1. Who are the important leaders in the village?   | Back in time, there were many people that came from the Brazil.  Jebran Makkari offered a school.  It was small zone.  But today everything changed so we talk more about political parties.  You have the Lebanese forces with an important weight (based on election), Mayor: (vice president before and current deputy), in addition to some "Aouniyin" and "2awmye" so you have a mix.   |
| B1.d. Are there different religious beliefs in this village?  (Note to interviewer: please ask for percentages if possible) | Not Asked  |
| B1.c.2. If yes, please describe what is the diversity?  (Note to interviewer: please identify who)                          | Talking about Anfeh history, it depended on fishing, salt and olives production. Back in time the people used to work by the sea because it generated a fortune so they didn't give much importance to education, but today the level of education in Anfeh is high and this is a positive sign. In Anfeh there's a whole area in which you find "Arab Anfeh" (migrated people) these citizens still depend on an old fashioned way of living (grazing) and their education level is very low (they don't register In schools or universities) and this has an impact on the area. |
| <b>B1.c.1.</b> Is there any cultural diversity?   | □√ Yes □ No  |
|   | Finding jobs for these people is the number one priority. The maritime are demolishing with time and if this affects the historical culture of the region.  Most people live by the coast, "Harit al Shar2ye" is the most condensed but they need to find jobs for a better living.  |
| <b>B1.b.</b> Who do you identify as vulnerable in your community?   | Maybe after the arbitrage [Sarcastically].   |
|   | The vulnerable are the maritime, we are working on marine protection to enhance the sea situation for a better living. We are depending on the UNDP in addition to a study by the Dr. Manal to collect some help but we got nothing till now   |

| C1. How many schools and universities are available in your village ( specify primary/secondary etc.)?   | We have only 1 public school (including primary and secondary) There are no universities in the area but there's a near one which is the Balamand university. But the university of Balamand is very close.   |
|--|---|
| C2.1. Are you satisfied with the educational level of the inhabitants of this village?   | Yes, the public school is giving very important results. (based on the diplomas)  |
| C2.2. Who are the least vs. most educated/ skilled people in your village?  (Note to interviewer: please ask about profiles not names).                          | Today everybody is getting education. The lifestyle changed, as I recall when I was a little people needed to work because we used to go to Tripoli for education even though the public school in Anfeh has a very high educational level.  Today the principle of the public school is working hard to maintain the high education level.   |
|  | Our main problem is that everyone wants the same career for their children, you find everyone going towards engineering, advocacy, and business sector and then they find that the market is saturated and there are no more working opportunities. People are not going towards the technical careers.   |
| C3. In your opinion, what problems do the education system in your community face?   | I think what the mayor is trying to say is that there's no planning from the Lebanese government regarding the market needs of expertise. Today no one can tell you that we need for example around 100 people in the electrical engineering sector, they all deviate towards the same sector. (those questions should be asked to the government not for the municipalities, it's not related to the local authorities its related to the government that need to know the market need for a better orientation) The second problem is financial regarding the cost of books and stationary that maybe many of the community can't afford. Also enhancing the school which is part of the ministry of education job not the municipality. (the municipality can help but can't take the education enhancement as their main job) |
| C4.1. Which healthcare facilities are available in this village? And which type of care do they provide  | For example, we made collaboration with the "Al Roum" hospital for a medical day, the citizen came for free, and you can consider this as an event not a permanent collaboration. (the hospital brought the materials and doctors and the municipalities paid some fees)  |
| C4.2. And which type of care do they provide? (e.g. acute care, preventive, immunization etc.)?  | Not Asked   |
| C5. What illnesses are most prevalent in your community?   | Cold and flu.   |
| C6.1. How would you describe the infrastructure and facilities serving this community?  (e.g. buildings, roads, power supplies, sanitation and waste management) | The building code is wrong and you can't modify it. It's true that they say the municipality is an independent authority but we do the study and present it to the organization and it don't proceed.  The building code is old. Each apartment has only 1 parking spot while   |
| caadon and music management)   | today every house has at least 3 cars.  |

|   | Adding to it the public transportation problem There's no study about each area's building organization so you find that they look like a spider nest.  As for the sanitation and waste management we will connect with "Shekka" and the water supplies are made by the CDR. As for the waste management we have a problem and no one cares. We take the trash and put it far from the roads temporary until someone comes and pick it up. No one is shading light on this problem while it also causes many diseases.  One of the biggest issue is the discretion in the infringement of public   |
|---|--|
| C6.2. What are the biggest problems in this regard?                             | marine property by the cost, since there's no application for the rules and regulation.  And this problem is not related to the municipality, today I'm emphasizing on applying the rules and regulations but some parties interfere.  This city is based on its sea shore no matter how much you build in it if the shore is affected than Anfeh is affected because we depend on it to stand out from other regions.  People choose Anfeh and start coming from the early morning to enjoy the clean beach and the good food (seafood) many fishermen depend on this as a source of living so with this infringement we are affecting the area and even the municipality (due to personal links). There's no long-term planning.  The SDATL planning excluded the coastal zone, it needed much more financing of CDR and we all know today financial issues. |
| B7.1. Which types of public transportation means are available in this village? | Private cars and bicycles.   |
| B7.2. And do you have any traffic issues?                                       | No traffic issue but we have issues regarding parking the cars.  |
| B8.1. Who provides the law enforcement in the village?                          | This is the municipalities' affair but if we had some decision from higher level authority we need to obey unless someone raise a file to the court.  You can't apply the law correctly due to personal relations (the region is still depending on old mentality) and this is the problem of the centralized system, it takes into consideration the personal interest more than the general interest.  |
| B8.2. And how do you estimate the level of crime in this village?               | We used to have some problems between the "Arab Anfeh" and the main citizens but ] brought the army station and installed them in the public school.  Today we have no crime   |

| B9. Who are the main players in public safety issues?  (e.g. fire, earthquake, coastal flood, maritime accidents) | We used to have, but today the we depend on the civil defense of Koura we have a deal between us since they are strong and have many volunteers especially in KfarHazir.  We don't have specialty for maritime accidents.  |
|---|--|
| B9.a. How many centers are available?   | No centers.  |
| B9.b. How fast and qualified is aid normally administered by those players?                                       | Not Asked.   |
| B9.c. Are there fire engines, ambulances and hospitals in this village?   | Not available.   |
| <b>B10.1.</b> What are the forms of communication used by people in your community?                               | Not available. But this issue will be solved once the hospital of Balamand is done.  |
| <b>B10.2.</b> And what problems connected with communication services are typical for your community?             | Cellphone and social media like everyone else. They are installing the fiber optics (From Chekka)  |
| B11.1. What are the historical and cultural sites available in your village?                                      | Anfeh is rich and known for its historical and heritage sites and is considered one of the old cities and today people are concerned about the heritage because its attracting tourists.  We are working with Dr. Nadine Haroun the director of archaeology and mycology regarding underwater tray as a sea museum from the bronze age 3000 years B.C In addition to the well-known castle |
| B11.2. Where are they located?  | Not Asked  |
| B11.3. what traditions and customs still exist in your community?   | Not Asked  |
| D. ECONOMY AND LIVELIHOOD C.  |  |

| D1. What are the main economic drivers, or the main work sectors available in this village?  (Note to interviewer: please try to ask for percentages) | The agriculture especially olives, now we are working in this project through collaboration with some companies to teach the citizen about the organic oil, but some elderlies prefer the traditional way. There's also the sea activities thanks to the sea protection measures taken, the fish wealth is increasing. The touristic activity is high for both the sea and the heritage. Anfeh depend on the   |
|---|--|
| D2. What is the percentage of formal vs. informal businesses in this village?   | Now we are working with the ministry of finance so that all business can be registered since this procedure didn't exist before, today almost 90% are registered Formal business:90% Informal business:10%   |
| D3.1. What are specifically the businesses available on the shore line?   | Yes, but they have negative impact. For me the worst thing what happen was the projects that took permission to operate in Anfeh In addition to some restaurants and coffee shops  |
| D3.2. And who are engaged in those businesses?  |  |
| (Note to interviewer: please ask for profiles not names)  | Not Asked  |
| D4.1. Do you have any port in this village?   | □√ Yes □ No  |
| D4.2. If yes, by whom it is managed?<br>Used? and for what purposes?  | Yes, and now we are planning to enhance it. It is managed by the government for the navy. In addition to some ports as Lace and Mina   |
| D5. What is the percentage of employed vs. unemployed individuals in this village?  | There's no accurate number   |
| D6. What are the employment rates distributed across sectors?   | There's no accurate number   |
| D7. What are the main reasons behind unemployment in your community?  | There's no job opportunities, all the educated people can't find jobs so they are forced to travel.  there's no economic diversification in the small cities so we go back to what we mentioned before. First of all, everyone is going towards the same educational sectors and also the government is not aware of the expertise needed.  As we all know Lebanese citizen think about the migration as main objective and in case they didn't had this opportunity they stay by force and unhappy. |

| г   |  |
|---|--|
|   | 37000 Lebanese left the country with to intention to come back. When looking at the bigger picture you can't ignore the general situation and lack of orientation.  In addition if the municipalities decided to create some job opportunities they face the fact that the municipal fund can't cover this project   |
|   |  |
| D8. Which section of the population is most affected by unemployment?   |  |
| (graduates, young people, people in the right age to work, retired persons, women, men, people of what nationality, former military people, refugees, etc.) | The graduates are the most affected from the society   |
| D9.1. How do you describe the tourism in your village?  | The tourism is high and in a continual increase  |
|   | Mostly the beach.  |
| D9.2. What are the main touristic sites and activities? Where are they? Do you have any coastal or marine tourism?  | We must not forget that in last year's report of the national council for scientific research categorized Anfeh's beach as the cleanest water in Lebanon This yearly report show that the pollution sources in Anfeh are less than other places and this why the municipality is concerned about the Infringements on marine property because with the increase of projects by the sea you are polluting the water which is the main source of attraction of such projects (cycle)   |
| D10. How dependent is this village on tourism/ marine tourism? Please describe.   | It depends much on the tourism it can be considered as a main source of income for the area The marine tourism is active   |
| D11. What are the main issues in the village?   | First the Infringements on marine property, second is the lack of economic development in projects how to develop the agriculture sector or the fishing activities in addition to the unemployment rate and the migration of the youth.  other the one mentioned by Dr. Manal, I wish the government apply the fishing system because Anfeh without its Beach is worthless, so they need to take care of it.  Regarding the fishing system there's a hard why to supply the law because it's not applied in most of the Lebanese territory. It's only applied in Jbeil and most of the Sour. Adding to it the agriculture law that I can't apply because even with sanction it's not working |
| E. ENVIRONMENT AND NATURAL RESOURCE USE   |  |
|   |  |

| E1. What are the natural resources available in this village?   | Yes, you can find many fish in the sea. Fishing and olive   |
|---|---|
| E2.1. Who are the parties managing those natural resources?   | The fishermen and the cooperative of fishermen (they try to break the law) The cooperative in Lebanon rarely do their jobs they only care about getting incentives and distribute them on their workers. There's a collection of sea shells and species |
| E3.a. Please describe briefly the climate   | Moderate climate  |
| E3.b. Please describe briefly the air quality   | Some air pollution  |
| E3.c. Please describe briefly the water quality   | Good quality  |
| <b>E4.1.</b> Are there any local organization engaged in environmental matters in this village?   | In Koura there's an environmental committee.  |
| E4.2. What are their roles exactly?   | They work to reduce and stop the pollution.   |
| E5. Are there any industrial which affect the environment and natural resources of this village?  (e.g. airborne, waterborne, solid waste, noise) or natural hazards (e.g. earthquakes, floods) | You used to have small industries in the industry area such as coal. And nowadays there's the Chicken factories. This year, because the network is made since the French mandate so this year we found many floods                                      |
| F. CLOSING  |   |
| F1. Do you have any question or issue that you would like to raise?   | I still didn't get the value of this interview. All the questions are not even related to Block 4. Interviewer: We are conducting these studies to know more about this area and how it might be affected.  |
| F2. Are there any stakeholders that you may recommend us to also talk with?   | Not Asked   |
| ADDITIONAL NOTES  |   |

- Stakeholder is an expert with the oil and gas drilling process and anything related, so he felt that this survey or interview isn't so related to the topic and has no link whatsoever. The survey is purely social economic and none will benefit out of it. He considers that this is not a study but a mere data collection that won't benefit any side.
- This socio economic survey should be linked to the oil and gas topic.
- The questionnaire should be more related to the oil and gas incubation.





[This page has intentionally been left blank.]

### **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 5.5 Attendance Lists

80754









[This page has intentionally been left blank.]

| Jbeil |                    |                                     |               | 23/05/2019  | )  |                  | FGD Women   |         |
|-------|--------------------|-------------------------------------|---------------|---|--|------------------|---|---------|
|       | TOTA COMMITTED TO  | Hanan<br>BETTER ENERGY .<br>Date: 2 | Jaber 3/05/20 | O(S). Meeting L                                   | ocation: The !-                            | Women dar Da     | INFOPRO r Al-Handasah Consultants nair and Partners) s.a.t. |         |
|       | First name         | Last name                           | Gender        | Locality if<br>different from<br>meeting location | Organisation and position (if appropriate) | Telephone number | Signature   |         |
|       | Joelyne<br>Ragheda | Abi chedy                           |               |   | ,  |                  | Joeenne Joeenne   |         |
|       | Sonia              | Daara<br>Richani                    |               |   | •  | -                | Sick  |         |
|       | Miled              | matar                               |               |   |  | -                | Hetaly .  |         |
|       | Mona               | Marar                               | ×             |   |  | -                | 100   |         |
|       | Fb1-issam<br>Hunda | hhalife                             |               |   |  | -                | thuson  |         |
|       | Danielle           | Ankouri                             |               |   | · v  | ,                | 1) amelle   |         |
|       |                    |                                     |               |   |  |                  | 3   |         |
|       |                    |                                     |               |   |  |                  |   |         |
| Anfeh |                    |                                     |               | 22/05/2019  | )  |                  | FGD Unemployed  | l Youth |







Ali Atat

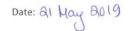
Date: 22 May 2019 Meeting Location: Enfeh Hara shark, ya Resturant

Meeting Attendance List

| First name | Last name | Gender | Locality if<br>different from<br>meeting location | Organisation and position (if appropriate) | Telephone number | Signature   |
|------------|-----------|--------|---|--|------------------|-------------|
| Rania      | Fares     | P      |   |  |                  | AUS.        |
| Clavie     | Creige    | F      |   |  |                  | Claire      |
| Mariane    | Khabbaz   | F      |   |  | -                | Mariana     |
| Christina  | Damaa     | F      |   |  | 1                | Chule       |
| Joelle     | Tannous   | ·F     |   |  | -                | Jelle James |
| Rita       | AP-Khawy  | G      |   |  |                  | Patro       |
| Jessica    | Outagek   | F      |   |  |                  | festito     |
| Rima       | It abbak  | F      |   | ,  |                  | Particles.  |
| Lynn       | Dayaa     | F      |   |  | -                |             |
|            |           |        |   |  |                  | ,           |
|            |           |        |   |  |                  |             |
|            |           |        |   |  |                  |             |

21/05/2019 Okaibeh FGD Fishing Households (Women)







Meeting Location: Okaibeh Municipality

## **Meeting Attendance List**

| First name | Last name      | Gender | Locality if                        | Organisation and          | Telephone number | Signature  |
|------------|----------------|--------|------------------------------------|---------------------------|------------------|------------|
|            |                |        | different from<br>meeting location | position (if appropriate) |                  | Jignature  |
| Mirelle    | Saylac         | Female |                                    |                           |                  | Howeites   |
|            | Hatar          | Female |                                    |                           | -                | A-6+       |
|            | latar          | Female |                                    |                           | +                | Market.    |
|            | Pazzi<br>Naczi | Female |                                    |                           | -                | Maerin 133 |
| May .      | ac Zi          | Tenalc |                                    |                           |                  | Jane m #33 |
|            |                |        | -                                  |                           |                  |            |
|            |                |        |                                    | *                         |                  |            |
|            |                |        |                                    |                           |                  |            |
|            |                |        |                                    |                           |                  | ,          |
|            |                |        |                                    |                           |                  |            |

| Anfeh 21/05/2019 FGD Fishing Households (Women) | Anfeh |  |  |
|---|-------|--|--|
|---|-------|--|--|





Ali Atak Date: 21 May 2019





## **Meeting Attendance List**

| First name | Last name | Gender | Locality if<br>different from<br>meeting location | Organisation and position (if appropriate) | Telephone number | Signature  |
|------------|-----------|--------|---|--|------------------|------------|
| Dolla      | Abboudi   | Female |   | ,  |                  | a CV b)    |
| Marline    | Faces     |        |   |  |                  | مارلیمار   |
| Anal       | Dayaa     |        |   |  | _                | and I land |
| Tina       | Dayaa     |        |   |  |                  | Leilie     |
| laila      | Jæish     | *      |   |  |                  | لکی بولنی  |
| Georgette  | Sarkis    |        |   |  |                  | جرما بركرو |
| Sabah      | Youniss   |        | -   |  |                  | The 2 tup  |
| Brighte    | Nemes     |        |   | *  | Φ4               | رازه الو   |
| Hind       | Faces     |        |   |  | C                | Cle in     |
| Taija      | Fares     |        |   |  | t                | 16.66      |
|            |           |        |   |  |                  |            |
|            |           |        |   |  |                  |            |

21/05/2019 FGD Fishermen Okaibeh

|               | TOTAL                      |
|---------------|----------------------------|
| Samuel Samuel | COMMITTED TO BETTER ENERGY |
| cluibe        |                            |

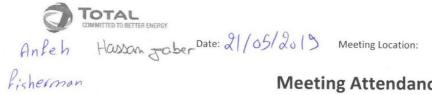
Date: 21/05/2019 Meeting Location:



## Meeting Attendance List

| First name | Last name | Gender | Locality if<br>different from<br>meeting location | Organisation and position (if appropriate) | Telephone number | Signature |
|------------|-----------|--------|---|--|------------------|-----------|
| Rabih      | othman    | М      |   |  | 1                | 000       |
| Dean       | Houral    | M      |   |  | C                | 3         |
| Joseph     | Merh:     | M      |   |  | <                | Jales     |
| Toni       | matar     | M      |   |  | 9                | 1.300     |
| Zakhya     | Bailtaa   | M      |   |  | 7                | Late -    |
| Zakhya     | A221      | M      |   |  | 6                | dell'e    |
| Sami       | Matar     | M      |   | in   | 6                | 7         |
| Hanna      | Al Zaylaa | M      |   | x.   | 3                | 1000      |
| Alfred     | Nass      | M      |   |  | ( ) ( ) ( )      | 17/71     |
|            |           |        |   |  |                  | ,         |
|            |           |        |   |  |                  |           |
|            |           |        |   |  |                  |           |

21/05/2019 Anfeh FGD Fishermen





## **Meeting Attendance List**

| First name | Last name | Gender | Locality if different from meeting location | Organisation and position (if appropriate) | Telephone number | Signature |
|------------|-----------|--------|---|--|------------------|-----------|
| Bassam Rac | Faces     | M      |   |  |                  | diel      |
| Edmond     | Faces     | M      |   |  |                  | tool      |
| Jany:      | Doumit    | M      |   |  | (                | A.        |
| Saad       | Al Jayaa  | И      |   |  |                  | d         |
| Issam      | Treish    | · M    |   |  |                  | Ent stage |
| milhael    | Al Jayan  | M      |   |  | (                | 2         |
| Jebrayel   | Sabour    | M      |   |  |                  | aluino,   |
| Bahly      | Al Atail  | M      |   | ,  |                  | syp       |
|            |           |        |   |  |                  |           |
|            |           |        |   |  |                  | ,         |
|            |           |        |   |  |                  |           |
|            |           |        |   |  |                  |           |

Bebnin- Al Abdeh 22/05/2019 FGD Fishermen



Hasson Jaber

Date: 22/05/2019

PA dar

INFOPRO

Dar Al-Handasah Consultant (Sharrand Portners) was

## Al Abbach - Fisherman Meeting Attendance List

Meeting Location:

| First name  | Last name   | Gender | Locality if<br>different from<br>meeting location | Organisation and<br>position (if<br>appropriate) | Telephone number | Signature |
|---|-------------|--------|---|--|------------------|-----------|
| Modor   | Tales       | M      |   |  | 0 9              | 1 Ales    |
| Mattmand  | Anriza      | M      |   |  | (                |           |
| Haithan   | Auerra      | A      |   | ÷  |                  | -A        |
| Whalil  | Taleb       | A      |   |  | 1 5              | OP        |
| Ahmad   | moshermenho | 0 K    |   |  | ć 5              | AD.       |
| Monral  | Elhay       | N      |   |  | 7                | And,      |
| Nost  | EIL         | M      |   |  | c                | 5         |
| Abeld   | Whales      | M      |   | (6)  | - 51             |           |
| Mostata   | Soutan      | M      |   |  | c                | Color     |
| VICE THE VICE THE PARTY OF THE |             |        |   |  |                  | 7         |
|   |             |        |   |  |                  |           |
|   |             |        |   |  |                  |           |

Chekka 22/05/2019 FGD Fishermen



Date: 29/65/2019 Meeting Location: 29/65/2019 Dar Al-Handasah Consultants.

Chekka - Fisher man

Meeting Attendance List

|       | First name | Last name | Gender | Locality if<br>different from<br>meeting location | Organisation and position (if appropriate) | Telephone number | Signature |
|-------|------------|-----------|--------|---|--|------------------|-----------|
|       | Issam      | AL ATIK   | M      |   | ,  |                  | 4 7       |
|       | Toni       | Assaf     | M      |   |  | ′                | Casho     |
|       | Fares      | Diab      | M      |   |  | C                |           |
|       | Elias      | mousa     | M      |   |  | ,                | Co CTU    |
|       | Wall       | botros    | M      |   |  | (                | وليد      |
|       | Jean       | bolony    | M      | -   |  |                  | SAL       |
|       | Tareh      | Salah     | M      |   |  | 3                | مارضاك    |
| ussel | 1 Sept     | brahm     | M      |   |  | C                | A'-16 2   |
|       | Reston     | Daher     | M      |   |  | ()1000           | Abil.     |
|       |            |           |        |   |  |                  | ,         |
|       |            |           |        |   |  |                  |           |
|       |            |           |        |   |  |                  |           |

23/05/2019 FGD Fishermen **Byblos** 

| Sparbel Zayloa M  Joseph Matar M  Charles merhi  Charbel matar  Waji Dercakhe M |   |
|---|---|
| Tharles merhi M. EDUC.  | - |
| harbel matar M  |   |
| 1 2 -   | - |
| Vati Deccape  |   |
| Dournst El Kouba H  |   |
|   | - |
|   |   |
|   |   |
|   |   |

30/05/2019

Dbayeh

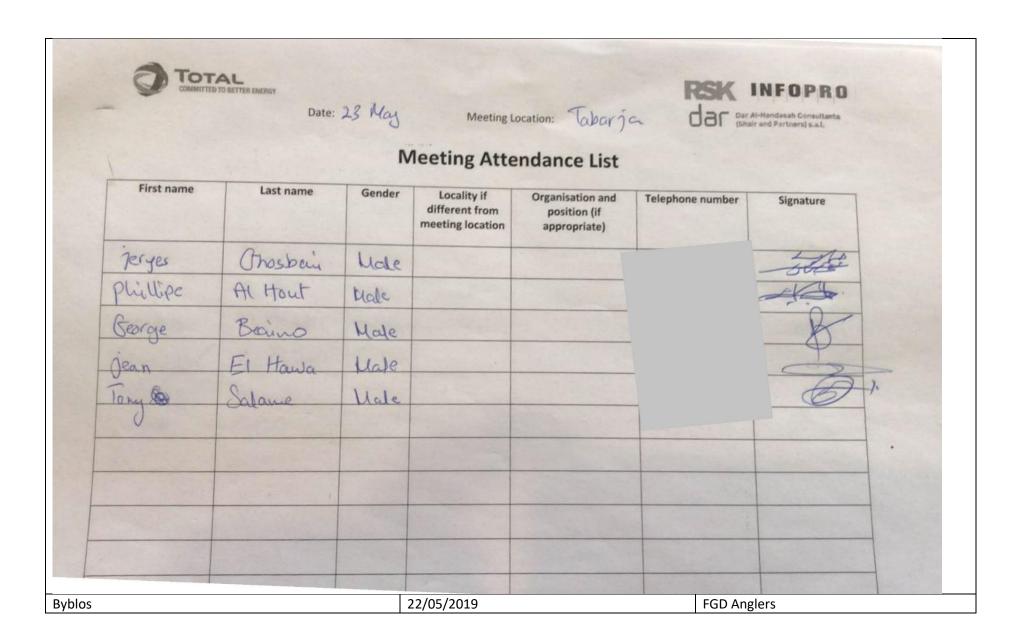
FGD Fishermen



Date: 30/05/2019 Meeting Location: fisherman - Dhay dar Al-Handasah Consultants (Shalf and Partners) s.a.l.

| First name | Last name  | Gender | Locality if<br>different from<br>meeting location | Organisation and position (if appropriate) | Telephone number | Signature |
|------------|------------|--------|---|--|------------------|-----------|
| Imab       | ElDech     | M      |   |  | 2.11             | Tylste    |
| El ie      | Che Liac   | M      | 1 100   |  | 6),<br>C         | andring   |
| ) Imon     | Sabor      | M      | 2.7   |  |                  |           |
| -la        | Nassrallah | M      |   |  | _                | CHA       |
| eloural    | Doca       | M      |   |  | 2                |           |
| Edoural    | hhacran    | M      |   |  |                  | 29        |
| oussel     | Youssel    | . M    |   |  | (                | Joseph .  |
| Tond       | harb       | M      |   |  | _                |           |
| Intoine    | Nehme      | M      |   |  | 1,               | Julian M  |
|            |            |        |   | ,  |                  | 1         |
|            |            |        |   |  |                  |           |
|            |            |        |   |  |                  | ,         |
|            |            |        |   |  |                  |           |

23/05/2019 **FGD Farmers** Safra





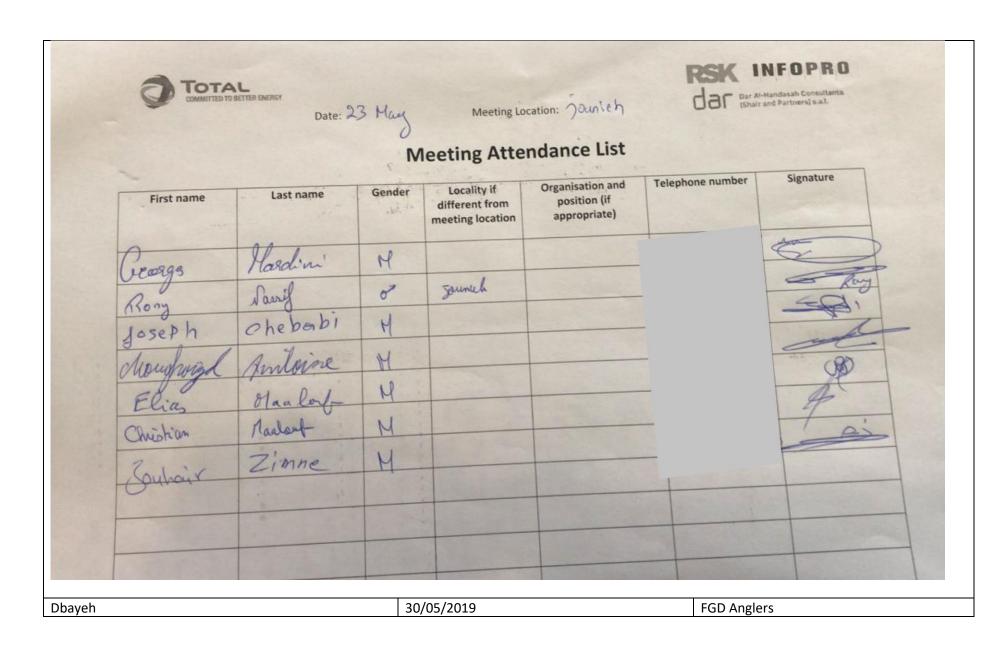
Ali Atah

Date: 22 May 2019 Meeting Location: Jbert dar Dar Al-Handasah Consultanta. (Shair and Partners) s.a.l.

## **Meeting Attendance List**

| First name | Last name | Gender | Locality if<br>different from<br>meeting location | Organisation and position (if appropriate) | Telephone number | Signature |
|------------|-----------|--------|---|--|------------------|-----------|
| Joseph     | Gaby      | M      | ٥   |  | c 14             | 000       |
| Nagy       | Merhi     | M      |   |  | c s              | (Hel      |
| flustafa   | Fadil     | M      |   |  | 7 30             | 5         |
| Peterl     | Sand      | M      |   |  | 7 30             | g. A      |
| Elje       | Buddour   | 14     |   |  | 4                | ast       |
| Isalin     | Danlakli, | H      |   |  | 63 611015        | Q.        |
|            |           |        |   | ,  |                  |           |
|            |           |        |   | ,  |                  |           |
|            |           |        |   | 1 260                                      |                  |           |
|            | 11        |        |   |  | 2.12             | ,         |
|            |           |        |   |  |                  |           |
|            |           |        |   |  |                  |           |

23/05/2019 Jounieh FGD Anglers





Date: 30/05/2019 Meeting Location: Dhayeh - Anglers dar Al-Handasah Consultants (Shair and Partners) s.a.l.

| First name | Last name | Gender | Locality if<br>different from<br>meeting location | Organisation and position (if appropriate) | Telephone number | Signature |
|------------|-----------|--------|---|--|------------------|-----------|
| David      | Attallah  | M      |   | *  |                  | 3         |
| Abboudi    | maallem   | M      |   | 4:   |                  | Mond      |
| George     | El Honry  | M      |   | •  |                  | A Top     |
| Inal       | mezher    | M      |   |  |                  | AMP !     |
| Elle       | hhalil    | M      |   |  |                  | ( ali)    |
| Roland     | Mahhlout  | M      |   |  |                  |           |
|            |           | ٨      |   |  |                  |           |
|            |           |        |   |  |                  |           |
|            |           |        |   |  |                  |           |
|            |           |        |   | 1  |                  |           |
|            |           |        |   |  |                  |           |
|            |           |        |   |  |                  | ,         |
|            |           |        |   |  |                  |           |

| Meeting Attendance List  First name  Last name  Gender  Locality II different from meeting location and position of appropriate paper propriate paper propriat |  |           |  |                |                      | dar              |           |
|--|--|-----------|--|----------------|----------------------|------------------|-----------|
| Hassan & Douk male Tyrimusistin and position in appropriate)  Hassan & Douk male Tyrimusisting the adoption of appropriate)  I brahim mesi Imani, male Naquira Head of municipally farmers and make farmers confirmed to the total of municipally farmers and make farmers confirmed to the total of municipally farmers and make farmers confirmed to the total of municipally farmers and the farmers confirmed to the total of municipally farmers and the farmers confirmed to the farmers of the farmers and the farmers confirmed to the farmers of the farm | M1   |           | I.   | Meeting Att    | endance Liet         |                  |           |
| Hassan Douk male Trycomunity Head of municipally of male of the | First name   | Last name |  |                | LIST                 |                  |           |
| 1 brahim Mesilmani, male Togethusing Municipality of Salemman mad male Nagura Head of Municipality of Salemman mad male farmers control to the Meritage site of Male of Manager of Male of Manager of Male of Manager of Man | 11 - 11  |           |  | different from | position (if         | Telephone number | Signature |
| Salemmand mad male Nagura Head of municipally Nader Seklawic male farmers configurately Walid Al Arabi male Canello restorment of manager A B O M Rabirl male elro arco of manager Yousef Jindi male owner of manager Mehmoud Meh di male lemer knot el owner  Or. Mohamad Hachem male Sour Leuna Hotel SSam Jheir male Informat  SSam Jheir male  Man dhin y male  Owner  Own | 1 h = 1  | Obouk     |  | Try - munich   | Head of              | 0                |           |
| Nader Seklawi male farmerscoop de Walid Seklawi male Heritage yte de Walid Al Arabi male Cavello restormanager de Pousef Jindi male elro anco o owner de Walmand Mehdi male lemer knotel owner of when male sour Leuna Hotel owner Dr. Mohamad Hachem male Sour Leuna Hotel owner hand About Alengin male beographic when we have the source of th |  |           | 1  | Naguta         | Head of municipality | 1 1              |           |
| Walid  Al Arabi male  Cavello resto- manager  Al Boll Rabill male  Vousef Jindi male  Mehmoud Mehdi male  Dr. Mohamad Hachem male Solly Leuna Hotel owner  SSam Jheir male  Informat hamed Albou Alenein male  Man dhing male  Owner  Owner  Owner  Informat  Owner   |  |           | male   |                | Thre                 | c                |           |
| ABOU Rabiel male elebarco a commer de lemer Monager de lemer Monter de commer de lemer Monter de lemer d |  |           |  |                |                      | 4                |           |
| Mehmoud Mehdi male lemerkhotel  Dr. Mehamad Hachem male Sour Leuna Hotel  Sour line suner  Issam Their male Informat  Themed About Alenein male  Informat  Johned About Alenein male  Johned Alloud Ming male  | ABOU   |           |  |                | Elebanco             | o .              |           |
| Mehmoud Mehdi male lemerkhotel  Dr. Mehamad Hachem male Sour Leuna Hotel  Sour Leuna | Yousef   | Jindi     | male   |                | Oiving center        | 4                |           |
| Dr. Mohamed Hachem male Sour Leuna Hotel  Sour Leuna Hotel  Informat  Informat  Ahmed About Alenein male  Sour Leuna Hotel  Sour Leuna Hot | The same of the sa |           | The state of the s |                | Lemer / notel        |                  | (1)       |
| Ahmed Aboutlenein male bestiner.  Inan thing male owners   |  |           | -  | Sour           | Leuna Hotel          |                  |           |
| donan thing male owners 3  |  | C.        | male   |                | Informal             |                  |           |
|  | 1  | 1000      | male   |                |                      | 4 3              |           |
|  | dnan   | dhing     | male   |                | owner                | 3                |           |
|  |  |           |  |                |                      |                  |           |







Date:

## **Meeting Attendance List**

| Date.   | First name | Last name | Gender | Locality if<br>different from<br>meeting location | Organisation and position (if appropriate) | Telephone number | Signature    |
|---------|------------|-----------|--------|---|--|------------------|--------------|
| 1105/19 | Samir      | Ouriss    | Nale   | Municipality of Sakre                             |  |                  | Semir Ceceto |
| 4/05/19 | George     | Saad      | Male   | Municipality of Safra                             |  |                  | Jan          |
|         | Kabalan    | ER ACRICA | Male   | of DBayle   |  | -                | 7            |
| 1105/19 | Joseph     | Bucake    | Nale   | Okaibi'   |  | e )              | Jay Se       |
| 2105/19 | Antowie    | ISSa      | 3      | Anchel  |  | . 0 2            | 45           |
| 2/05/19 | Wissam     | ZAM ROJR. | Role.  | Byblos  |  | £ 2              | Thin4        |
| 3/05/19 | Rodique    | BASSIC.   | Male   | Fidar   |  | 0.               |              |
| 3/05/19 | Abdo       | ZOGHBI    | Mull   | Dbaye   |  | 03/201000/       |              |
|         |            |           |        | -   |  |                  | 1 (          |
|         |            |           |        |   |  |                  |              |
|         |            |           |        |   |  |                  |              |
|         |            |           |        |   |  |                  |              |







Date:

Meeting Location:

## **Meeting Attendance List**

|            | First name | Last name            | Gender | Locality if<br>different from<br>meeting location | Organisation and position (if appropriate) | Telephone number | Signature |
|------------|------------|----------------------|--------|---|--|------------------|-----------|
| 22/09/2019 | Dr Gebran  | Karnaouni            |        | Batroon   | President Ass.                             |                  | G.        |
| 29/01/2019 | TANK ZAWAT | Safer Leban<br>ZAUGN | on@ fo | Byblos  | Direction Com                              | 6                | To 2      |
| 30/08/049  | Philippe   | Chaalan<br>TABET     | M      | Hazmien<br>Beinut                                 | Owner Type Blue mas                        |                  | Dassey,   |
| 21102/295  | Nigppe     | IADEL                | 7)     | Gerrary   | 500 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1    | C_97-10-1        |           |
|            |            |                      |        |   |  |                  |           |
|            |            |                      |        |   |  | *                | ,         |
|            |            |                      |        |   |  |                  |           |
|            |            |                      |        |   |  |                  |           |

| TOTAL COMMITTED TO | D BETTER ENERGY Date: |         | Margunitte  | Location:                                  | RSK<br>dar pa    | INFOPRO or Al-Handasah Consultants hair and Partners) s.a.l. |     |
|--------------------|-----------------------|---------|---|--|------------------|--|-----|
| First name         | Last name             | Gender  | Locality if<br>different from<br>meeting location | Organisation and position (if appropriate) | Telephone number | Signature  |     |
| Nancy              | Neame                 | Female  |   | Manager                                    |                  | Nous   |     |
| Selim              | Hiaess,               | nole    |   | Manager                                    |                  | *  |     |
| Abdallah           | Box Maplil            | Nale    |   | CEO  | C                | A see  |     |
| Soddam             | Heissein              | Kach Ko | rch   | Maibre                                     | 1                | 1 # 3  |     |
| Fifi .             | Kallab                | Femalo  |   | NGO expert                                 |                  | CAT:   | F t |
| Joella             | About Farbal          | Feal    |   | NGO.                                       | 7                | Galla  |     |
|                    |                       |         |   |  |                  |  |     |
|                    |                       |         |   |  |                  |  |     |
|                    |                       |         |   |  |                  |  |     |
|                    |                       |         |   | P 1  | ,                |  |     |
|                    | -                     |         |   | ,  |                  | У.   |     |
|                    |                       |         |   | <u> </u>                                   | ×                |  |     |
|                    |                       |         |   |  |                  |  |     |
|                    |                       |         |   |  |                  |  |     |
|                    |                       |         |   |  |                  |  |     |

|        |                                |  | N      | leeting Att                                       | endance List                               |                  |           |
|--------|--------------------------------|--|--------|---|--|------------------|-----------|
|        | First name                     | Last name  | Gender |   | citualice List                             |                  |           |
|        | Rabih                          | Hoji Aei   | Gender | Locality if<br>different from<br>meeting location | Organisation and position (if appropriate) | Telephone number | Signature |
|        | FARAJALLA                      | Kannareddinz<br>Kforky   |        |   | a mil ( )                                  | a                |           |
|        | Marallins                      | Hark   |        |   | (2 (f                                      | 9                |           |
| nine ( | D. R. Kalel AL                 | IBRAHIM  |        | O   | استام والم ما ما                           | 2                |           |
|        |                                | AMINE  |        |   | 21501                                      | 7                | Yuf -     |
|        | Naim Naim                      | Awad   |        |   |  | (                |           |
|        | Wissam                         | Makhoul  |        |   | General Younge                             |                  | THE WAR   |
|        | Han Yaral                      | Nader<br>J, ho   |        |   | النين تفاعرين                              |                  |           |
|        | Stafic Marours<br>Ahmad Halawa | 4  |        |   | رئیسی تعادیدة<br>- كزعمیل<br>د الهیادین ی  | 2                | -         |
|        | Ahmad Halawa                   | nu de la companya della companya della companya de la companya della companya del |        | 1   | البعرية                                    |                  | ZiA       |



## **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 5.6 Photo Catalogue

80754









[This page has intentionally been left blank.]

| Photographs  | X coordinate | Y coordinate | Name and<br>Location                       | Date       |
|--------------|--------------|--------------|--|------------|
| *Caris cir.* | 34.357830    | 35.732422    | FGD Fishermen,<br>Anfeh                    | 21/05/2019 |
|              | 34.357830    | 35.732422    | FGD Fishing<br>Household<br>(women), Anfeh | 21/05/2019 |

| Photographs  | X coordinate | Y coordinate | Name and<br>Location                            | Date       |
|--|--------------|--------------|---|------------|
| The Actions which the Control of the | 34.0571596   | 35.641514    | FGD Fishing<br>Household<br>(Women),<br>Okaibeh | 21/05/2019 |
| *Control Cases  The second sec | 34.061951    | 35.645493    | FGD Fisherman<br>Coop, Okaibeh                  | 21/05/2019 |

| Photographs         | X coordinate | Y coordinate | Name and<br>Location                                | Date       |
|---------------------|--------------|--------------|---|------------|
| ميلند بينة طرا بيلس | 34.437546    | 35.839504    | Administrative<br>Building, Tripoli<br>Municipality | 21/05/2019 |
|                     | 34.318291    | 35.728935    | Administrative<br>Building, Chekka<br>Municipality  | 21/05/2019 |

| Photographs                    | X coordinate | Y coordinate | Name and<br>Location                                | Date       |
|--------------------------------|--------------|--------------|---|------------|
|                                | 34.038620    | 35.640167    | Administrative<br>Building, Safra<br>Municipality   | 21/05/2019 |
| (7) Juli Arali<br>Ventra della | 34.2541612   | 35.661148    | Administrative<br>Building, Batroun<br>Municipality | 21/05/2019 |

| Photographs  | X coordinate | Y coordinate | Name and Location                                   | Date       |
|--|--------------|--------------|---|------------|
| Municipalité de Okaibeh  BIENVENUE   | 34.062107    | 35.645004    | Administrative<br>Building, Okaibeh<br>Municipality | 21/05/2019 |
| ** Cartical State of the Cartical State of t | 34.503349    | 36.001225    | FGD Fishermen,<br>Abdeh                             | 22/05/2019 |

| Photographs | X coordinate | Y coordinate | Name and Location              | Date       |
|-------------|--------------|--------------|--------------------------------|------------|
|             | 34.357838    | 35.732464    | FGD Unemployed<br>Youth, Anfeh | 22/05/2019 |
|             |              |              |                                |            |

| Photographs                            | X coordinate | Y coordinate | Name and<br>Location     | Date       |
|--|--------------|--------------|--------------------------|------------|
| ************************************** | 34.327736    | 35.722832    | FGD Fishermen,<br>Chekka | 22/05/2019 |
|  | 34.120914    | 35.646854    | FGD Anglers,<br>Jbeil    | 22/05/2019 |

| Photographs  | X coordinate | Y coordinate | Name and<br>Location  | Date       |
|--|--------------|--------------|---|------------|
| Superior Control of the Control of t | 34.494186    | 35.991211    | Administrative<br>Building, Bebnine<br>(Al Abdeh)<br>Municipality | 22/05/2019 |
|  | 34.148403    | 35.646324    | Administrative<br>Building, Amchit<br>Municipality                | 22/05/2019 |
|  | 34.123814    | 35.652710    | Administrative<br>Building, Jbeil<br>Municipality                 | 22/05/2019 |

| Photographs | X coordinate | Y coordinate | Name and<br>Location    | Date       |
|-------------|--------------|--------------|-------------------------|------------|
|             | 34.120708    | 35.645187    | FGD Fishermen,<br>Jbeil | 23/05/2019 |
|             | 35.120708    | 35.645187    | FGD Women,<br>Jbeil     | 23/05/2019 |

| Photographs | X coordinate | Y coordinate | Name and<br>Location    | Date       |
|-------------|--------------|--------------|-------------------------|------------|
|             | 34.030865    | 35.627857    | FGD Farmers,<br>Safra   | 23/05/2019 |
|             | 33.996292    | 35.646477    | FGD Anglers,<br>Jounieh | 23/05/2019 |

| Photographs | X coordinate | Y coordinate | Name and<br>Location                              | Date       |
|-------------|--------------|--------------|---|------------|
|             | 34.381798    | 35.811848    | KII Seashell<br>Collector, Chekka                 | 23/05/2019 |
|             | 34.099304    | 35.652916    | Administrative<br>Building, Fidar<br>Municipality | 23/05/2019 |

| Photographs | X coordinate | Y coordinate | Name and<br>Location        | Date       |
|-------------|--------------|--------------|-----------------------------|------------|
|             | 33.997486    | 35.643551    | Makhluf Sur Mer,<br>Jounieh | 23/05/2019 |
|             |              |              |                             |            |

| Photographs  | X coordinate | Y coordinate | Name and<br>Location | Date       |
|--|--------------|--------------|----------------------|------------|
| الجمهورية اللبنانية بلدية المبنانية المبنانية بلدية المبنانية وللمبنانية والمبنانية والم | 33.936810    | 35.594196    |                      | 23/05/2019 |
| State of project   |              |              |                      |            |

| Photographs  | X coordinate | Y coordinate | Name and<br>Location                     | Date       |
|--------------|--------------|--------------|--|------------|
| nadelowZero! | 33.959061    | 35.597813    | Xtreme Diving<br>Center (XDC),<br>Dbayeh | 23/05/2019 |
|              | 34.336487    | 35.734234    | Salt Miners,<br>Anfeh                    | 24/05/2019 |

| Photographs | X coordinate | Y coordinate | Name and<br>Location                                   | Date       |
|-------------|--------------|--------------|--|------------|
|             | 34.305641    | 35.704407    | Florida Beach<br>Resort, Chekka                        | 27/05/2019 |
|             | 34.033669    | 35.626549    | Lebanese Association for Safety and Emergency, Batroun | 27/05/2019 |

| Photographs           | X coordinate | Y coordinate | Name and<br>Location                     | Date       |
|-----------------------|--------------|--------------|--|------------|
|                       | 33.927818    | 35.589855    | Women in Front<br>NGO, Dbayeh            | 27/05/2019 |
| Sigh Stephano<br>Beer | 34.341373    | 35.736595    | San Stephano<br>Beach Resort,<br>Batroun | 28/05/2019 |

| Photographs                            | X coordinate | Y coordinate | Name and Location                                 | Date       |
|--|--------------|--------------|---|------------|
| استراحة تعاونية صيادي الأسماك - الضبية | 33.943512    | 35.589985    | Yacht and Boat<br>Services, Dbayeh                | 28/05/2019 |
|  | 34.359425    | 35.732838    | Administrative<br>Building, Anfeh<br>Municipality | 28/05/2019 |

| Photographs | X coordinate | Y coordinate | Name and<br>Location                     | Date       |
|-------------|--------------|--------------|--|------------|
|             | 34.150093    | 35.627167    | Chez Zakhia<br>Restaurant,<br>Amchit     | 28/05/2019 |
|             | 33.877964    | 35.515148    | UNESCO World<br>Heritage Site,<br>Byblos | 29/05/2019 |

| Photographs                             | X coordinate | Y coordinate | Name and Location            | Date       |
|---|--------------|--------------|------------------------------|------------|
|   | 34.2575532   | 35.657909    | Fishermen's<br>Coop, Batroun | 29/05/2019 |
|   |              |              |                              |            |
|   |              |              |                              |            |
| 15 A 16 A |              |              |                              |            |

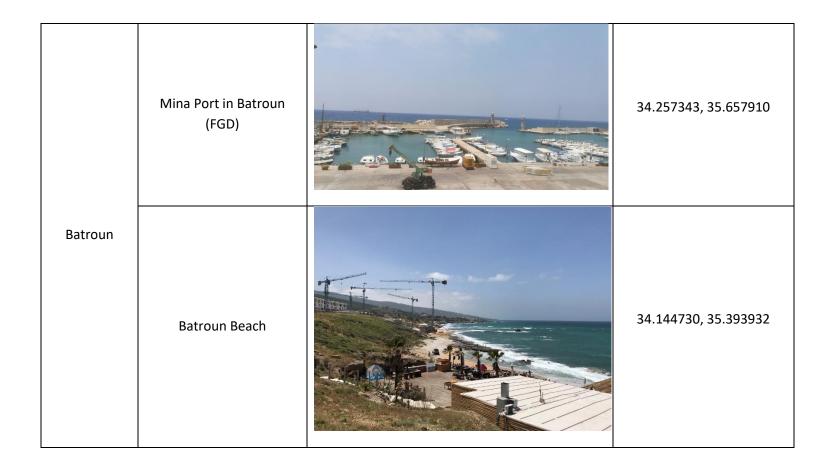
| Photographs  | X coordinate | Y coordinate | Name and<br>Location            | Date       |
|--|--------------|--------------|---------------------------------|------------|
| Control of the contro | 34.227585    | 35.655247    | Fishermen's<br>Coop, Kfaraabida | 29/05/2019 |
|  | 33.943565    | 35.589909    | FGD Fishermen,<br>Dbayeh        | 30/05/2019 |

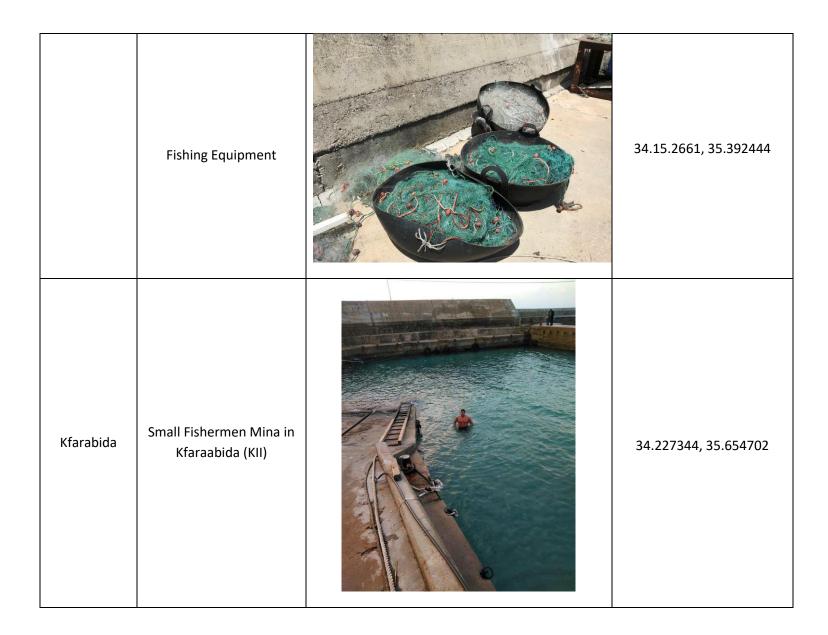
| Photographs    | X coordinate | Y coordinate | Name and<br>Location   | Date       |
|----------------|--------------|--------------|------------------------|------------|
| Cartical date. | 33.943565    | 35.589909    | FGD Anglers,<br>Dbayeh | 30/05/2019 |

| Photographs   | X coordinate | Y coordinate | Name and<br>Location  | Date       |
|---|--------------|--------------|---|------------|
| الجمهورية اللبنانية وزادة الساخلية والبلديات وزادة الساخلية والبلديات وزادة الساخلية والبلديات وزادة الساخلية والبلديات وحدة الانتقاد البحري البدون (ع) وحدة الإنتقاد البحري البدون (ع) وحدة البحري البحري (ع) وحدة البحري (ع) وح | 34.228214    | 35.655506    | Informal<br>Business-<br>Seashell<br>Collector, Al-<br>Mina (Tripoli) | 30/05/2019 |

| Photographs  | X coordinate | Y coordinate | Name and<br>Location  | Date       |
|--------------|--------------|--------------|---|------------|
|              | 34.448853    | 35.807900    | Development for People and Nature Association (DPNA), Al-Mina (Tripoli) | 30/05/2019 |
| ADI DO AND A |              |              |   |            |

| Location | Name of location                        | Photograph | GPS Coordinates        |
|----------|---|------------|------------------------|
| Chekka   | Florida Beach Hotel and<br>Resort (KII) |            | 34.3044154, 35.7055319 |
|          | Industry on the Coast                   |            | 34.202367, 35.435577   |





| Anfeh  | Salt Production (KII)                    |  | 34.362428, 35.734301 |
|--------|--|--|----------------------|
| Dbayeh | Xtreme Diving Center<br>XDC Dbayeh (KII) | Roc & Toc Diving Sc UIBA diving shop AIR/NITROX/TRIMX Filling AIR - LiteReplantation Zerol | 33.958943, 35.597907 |

| Safra   | Green houses- Small<br>Farmers Safra (FGD) | 34.033153, 35.6277708 |
|---------|--|-----------------------|
| Okaibeh | Fishermen Port (FGD)                       | 34.05779, 35.6417528  |

| Jounieh | Makhlouf Sur Mer<br>Restaurant (KII)                   | 33.997631, 35.6429968 |
|---------|--|-----------------------|
| Aamchit | Chez Zakhia Restaurant<br>(KII)                        | 34.149999, 35.6264965 |
| Jbeil   | Jbeil Fortress - World<br>Cultural Heritage site (KII) | 34.12017, 35.6454252  |

| Byblos   | Byblos Harbour                   | 34.72032, 35,383382  |
|----------|----------------------------------|----------------------|
| Al Abdeh | Fishermen Port in Abdeh<br>(FGD) | 34.519097, 35.978689 |
| Tripoli  | Municipality of Tripoli<br>(KII) | 34.43797, 35.8390635 |







[This page has intentionally been left blank.]

# **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 6.1 Screened Out Impacts

80754









[This page has intentionally been left blank.]

# APPENDIX 6.1 SCREENED OUT IMPACTS

# **Screening**

This appendix presents reasons why the impacts were screened out from further assessment and is provided separately from the main impacts chapter text to aid in clarity.

#### **Activities**

Before listing impacts that have been screened out, it is important that the terms used in this document and the EIA chapter are linked to those in the SEA report so that it is clear where screening has taken place.

#### **Activities**

The Block 4 EIA has considered the activities listed in the SEA in more detail, and this has resulted in the number of activities in the Block 4 impact assessment being greater than the number in the SEA preliminary impacts matrix and in the Block 4 scoping report (these are effectively subactivities). Table A6.1 lists the activities identified in the SEA and the Block 4 scoping report with the equivalent activities that have been used in the Block 4 impact assessment.

Table A6.1: Correspondence table showing SEA, and scoping report activities for assessment, in comparison to actual activities assessed

| SEA activity                                  | Scoping report activity                                      | Block 4 EIA activity  |
|---|--|---|
| Mobilisation and                              | Drill ship   | MAE 01 and MAS01:   |
| positioning in place of drilling ship/mooring | Semi-submersible platform                                    | MODU mobilisation, installation, plug and abandonment and demobilisation  |
|   | Single well drilling Multiple wells drilling                 | MAE 02: Drilling of riserless top hole sections – discharge of cuttings and WBDFs MAS 02: MODU operations MAS 03: Support activities (movement of support vessels) MAE 05: Cementing discharges during drilling MAE 06: Pipe dope discharges during drilling MAE 07: BOP testing discharges during drilling MAE 17: Well test of possible future appraisal well MAE 19: Underwater noise from MODU and support/supply vessel operations MAE 20: Light spill from MODU MAE 22: Logging using radioactive sealed sources (also applicable to onshore storage and transport of radioactive sealed sources) |
| Drilling rig operation                        | Physical presence of the MODU                                | MAE 01: MODU mobilisation, installation, plug and abandonment and demobilisation MAS 02: MODU operations MAE 20: Light spill from MODU  |
|   | Power generation (noise and air emissions)                   | MAE 16: MODU and support/supply vessel power generation resulting in air emissions  |
|   | Discharge of drill cuttings and fluids/onshore disposal      | MAS 03: Support activities (movement of support vessels) OAS 01: Logistic base operations OAS 02: Transport of materials to/from the logistics base OAE 04: Logistics base operation – waste management   |
|   | Discharge of drill cuttings and fluids/cuttings re-injection | Not part of the project.  |
|   | Discharge of water-based drill cuttings and fluids to sea    | MAS 02: MODU operations MAE 02: Drilling of riserless top hole sections – discharge of cuttings and WBDFs   |

| SEA activity | Scoping report activity   | Block 4 EIA activity   |
|--------------|---|--|
|              |   | MAE 03: Drilling of lower well sections using HPWBDF – discharge of cuttings and fluids  |
|              | Discharge of oil/synthetic-based drill cuttings and fluids to sea         | Not part of the project  |
|              | Discharge of drill cuttings and fluids/export of waste                    | MAS 03: Support activities (movement of support vessels)  MAE 04: Drilling of lower well sections using synthetic NADFs – ship to shore of cuttings  |
|              |   | MAS 02: MODU operations MAS 03: Support activities (movement of support vessels)   |
|              |   | MAE 05: Cementing discharges during drilling MAE 08: Discharge of sanitary waste from MODU and support/supply vessels MAE 09: Discharge of food waste from MODU and support/supply vessels (in the                               |
|              | Other effluent discharges (including routine vessel discharges and waste) | case of B4-1 well no discharge) MAE 10: Desalination unit discharges from MODU MAE 11: Discharge of drainage water (deck drainage, fire water, bilge water and slop  |
|              |   | water) from MODU and support/supply vessels MAE 12: Uplift and discharge of cooling water from MODU  |
|              |   | MAE 13: Discharge of ballast from MODU and support/supply vessels MAE 14: Generation of solid waste on MODU and support/supply vessels MAE 15: Operation of incinerator onboard MODU   |
|              | Drilling and VSP (underwater noise)                                       | MAS 02: MODU operations MAS 03: Support activities (movement of support vessels) MAE 18: Underwater noise from vertical seismic profile (VSP) activities MAE 19: Underwater noise from MODU and support/supply vessel operations |
|              | Well plugging and abandonment   | MAE 01 and MAS01: MODU mobilisation, installation, plug and abandonment and demobilisation   |
|              | Chemicals storage offshore  | MAE 21: Chemicals transfer and storage   |
|              | Chemicals storage onshore   | OAE 05: Logistics base operation – chemicals management OAS 01: Logistic base operations   |

| SEA activity       | Scoping report activity          | Block 4 EIA activity   |
|--------------------|----------------------------------|--|
|                    |                                  | MAS 03: Support activities (movement of support vessels)   |
|                    | Chemicals transportation by sea  | MAE 16: MODU and support/supply vessel power generation resulting in air emissions                           |
|                    |                                  | MAE 19: Underwater noise from MODU and support/supply vessel operations                                      |
|                    |                                  | MAE 21: Chemicals transfer and storage   |
|                    |                                  | OAS 01: Logistic base operations   |
|                    | Chemicals transportation by land | OAS 02: Transport of materials to/from the logistics base  |
|                    |                                  | OAE 05: Logistics base operation – chemicals management  |
|                    |                                  | MAE 16: MODU and support/supply vessel power generation resulting in air emissions                           |
|                    |                                  | MAS 03: Support activities (movement of support vessels)   |
|                    |                                  | MAE 08: Discharge of sanitary waste from MODU and support/supply vessels                                     |
|                    | Movement of support vessels      | MAE 09: Discharge of food waste from MODU and support/supply vessels (in the case of B4-1 well no discharge) |
|                    |                                  | MAE 12: Uplift and discharge of cooling water from MODU  |
|                    |                                  | MAE 13: Discharge of ballast from MODU and support/supply vessels  |
|                    |                                  | MAE 14: Generation of solid waste on MODU and support/supply vessels   |
| Support activities |                                  | MAE 19: Underwater noise from MODU and support/supply vessel operations                                      |
|                    |                                  | OAE 06: and OAS 03: Helicopter transfers to Beirut International Airport                                     |
|                    | Helicopter transfers             | MAE 16: MODU and support/supply vessel power generation resulting in air emissions                           |
|                    |                                  | OAS 01: Logistics base operation   |
|                    |                                  | OAE 01: Logistics base operation – emissions to air  |
|                    | Onshore support facilities /     | OAE 02: Logistics base operation – discharge of drainage water   |
|                    | provision of supplies            | OAS 02: Transport of materials to/from the logistics base  |
|                    |                                  | OAE 03: Logistics base operation – noise generation  |
|                    |                                  | OAE 04: Logistics base operation – waste management  |

| SEA activity      | Scoping report activity                                 | Block 4 EIA activity   |
|-------------------|---|--|
|                   | Gas blow out  | AE 05: Shallow gas blowout, release of gas into water column AE 06: Blowout– release of condensate and gas   |
|                   | Oil spill   | AE 06: Blowout – release of condensate and gas AE10: Loss of rig stability (rig capsize) due to severe metocean conditions with release of fuel inventory AE11: Earthquake resulting in loss of well integrity and release of hydrocarbons to sea  |
| Accidental events | Spills of fuel and chemicals at sea                     | AE 02: Loss of chemical containment onboard MODU AE 04: Riser rupture, release of drilling fluid to sea AE 07: Collision of third-party ship with MODU – release of third-party fuel inventory, possible damage to MODU and riser AE 08: Helicopter crash on MODU deck – release of aviation fuel to sea AE 09: Loss of containment during offshore materials transfer to MODU – release of drilling fluids or marine diesel to sea AE 10: Loss of rig stability (rig capsize) due to severe metocean conditions with release of fuel inventory AE 11: Earthquake resulting in loss of well integrity and release of hydrocarbons to sea |
|                   | Collisions/transportation and storage accidents onshore | AE 12: Loss of containment during materials transfer to supply vessels at logistics base quay side – release of drilling fluids/diesel to sea  Waste transfer outside of the logistics base will be under a separate waste contract and related accidental risk beyond the base will be mitigated under that contract.   |
|                   | Loss of stability                                       | AE 10: Loss of rig stability (rig capsize) due to severe metocean conditions with release of fuel inventory  AE 11: Earthquake resulting in loss of well integrity and release of hydrocarbons to sea  |
|                   | NA  | AE 01: Dropped Object from MODU (lifting)  AE 03: Radioactive source lost in hole  AE 08: Helicopter crash on MODU deck – release of aviation fuel to sea  AE 11: Earthquake resulting in loss of well integrity and release of hydrocarbons to sea  |

# Receptors

In addition to the changes identified above for the activities, the Block 4 impact assessment has also used some different receptor names to those which were included in the SEA and scoping report. Table A6.2 presents the terms used in the scoping report with the equivalent term used in the EIA, where they differ. Where receptor titles include different sub-receptors, Table A6.2 also presents such changes.

**Table A6.2: Naming convention of receptors** 

| Scoping term                             | EIA term                                    |
|--|---|
| Above-water noise                        | NA offshore, onshore moved to public health |
| Underwater noise                         | NA  |
| Subsurface aquifers                      | NA  |
| Phyto- and zoo benthos                   | Benthos                                     |
| Nekton                                   | Fish  |
| Phyto- and zooplankton                   | Plankton                                    |
| Terrestrial ecology and coastal habitats | Coastal habitats                            |
|  | Terrestrial ecology                         |
| Social conditions                        | Social conditions (security/safety)         |
| Crime and conflict                       | NA  |
| General economy/ industry/energy         | General economy                             |
| Public health and safety                 | Public health                               |
| Landscape and visual amenity             | Included under tourism                      |

The following receptors listed in the scoping report have not been considered in this EIA, or have been or combined with a different receptor:

- above water noise (apart from helicopter noise)
- underwater noise
- subsurface aquifers
- landscape and visual amenity
- crime and conflict.

# Screening of receptors

Having completed the above reviews to understand how the Block 4 EIA aligns with the SEA, the following section lists which of the receptors were not considered in the EIA and gives the reason.

## Above-water noise

There are no potential impacts of above-water noise offshore for the environment or society. Therefore, any impacts identified in the scoping report preliminary matrix for above-water noise

have been screened out from consideration in the EIA. This includes impacts that were identified in the preliminary matrix under the following activities:

- drillship
- semi-submersible platform
- single well drilling
- multiple wells drilling
- power generation (noise and air emissions).

Movement of support vessels is not assessed, as the port and airport have existing traffic levels and no additional potential impact to airborne noise is considered from the low levels of additional vessel and related to the Block 4 exploration drilling campaign. There may be noise from helicopter operations, which is assessed under OAE 06. However, there are no additional impacts of helicopter noise from the low numbers of additional flights.

Where airborne noise (such as from the generators and mixing plant), might have an impact onshore, it is assessed under public health.

#### **Underwater noise**

Underwater noise is not assessed as a receptor in this impact assessment as underwater noise in itself is not considered a receptor. Underwater noise is considered in relation to its impact on marine mammals, turtles and fish in Section 6.1.3.13.

## Subsurface aquifers

The main concern for such aquifers is the impact of waste. However, any waste disposal activities by TEP Liban's drilling or logistics base contractors will be carried out at facilities that are already appropriately licensed to receive such waste and will not be expanded to accommodate the project's waste.

Disposal of waste to such sites will be within the normal site operations for these facilities and appropriate licensing should have accommodated any risk to aquifers.

## Landscape and visual amenity

The exploration drilling programme will be relatively short for each well and, owing to the distance offshore to the well sites, the MODU will not be prominent on the horizon from the shoreline. Landscape and visual amenity are described in Chapter 5 Baseline (Section 5.3.3) and considered to have negligible sensitivity. Given that some tourism activities may rely on the visual amenity, landscape and visual amenity have been considered under the tourism receptor, where this is appropriate.

#### **Crime and conflict**

In the SEA, there are no impacts identified to crime or conflict for exploration drilling, although crime was included in the scoping report. The receptor initially identified included security risks during offshore operations and impact on social conditions (security) involving project support vessels travelling between the drill well and the Port of Beirut. It was screened out, as the project support vessels will not travel outside Lebanon national waters and the Port of Beirut is mainly a commercial port with little passenger-receiving capacities. The relatively small scale and short-term nature of the project (60 days) indicate that there are no expected impacts on crime and conflict.

# Screening of activities

In the same way that entire columns for receptors can be screened out if they are not present, it is also possible to screen out entire activity rows from the matrix if the activity will not take place. Accordingly, the following two activities that were included in the scoping report and SEA are not assessed in EIA:

- discharge of drill cuttings and fluids/cuttings reinjection
- discharge of oil/synthetic-based drill cuttings and fluids to sea.

Reinjection of cuttings and fluids is a technique which can take place only when other wells exist and can be used for re-injection (in a development project rather than during exploration drilling). This is not the case in Block 4.

Discharge of oil/synthetic-based drill cuttings and fluids to sea is not allowed under the SEA requirements, therefore it is not part of the Block 4 scope.

Transfer of waste between the logistics base and disposal site in Lebanon is the responsibility of the waste contractor, thus impacts relating to waste transfer, such as potential vehicle collisions, are not covered in this EIA. However, vehicles transporting hazardous wastes will have appropriate certification and licences, and the contractor will have a waste management plan in line with that discussed in Chapter 8, section 8.6.1 (Waste Management Plan). With this plan in place, the detailed impact assessment of waste transfer activities is not required.

These activities have therefore been removed from further assessment in the chapter ("screened out").

Table A6.3: Scoping Report Impact identification matrix – exploration phase, compared with EIA. Included in scope (and assessed in Chapter 6) represented by an X, screened out is a S.

|   |  |             | Physical environment |                                  |               |                    |                   |                     |                        |        | al en                  | viror    | nment                        |                           |  |                                       | Socio-economic |                   |                        |                    |                                     |           |          |         |                          |                                 |  |  |
|---|--|-------------|----------------------|----------------------------------|---------------|--------------------|-------------------|---------------------|------------------------|--------|------------------------|----------|------------------------------|---------------------------|--|---------------------------------------|----------------|-------------------|------------------------|--------------------|-------------------------------------|-----------|----------|---------|--------------------------|---------------------------------|--|--|
| Activity  |  | Air quality | Climate change       | Sediment quality/<br>composition | Water quality | Underwater noise * | Above-water noise | Subsurface aquifers | Phyto- and zoo benthos | Nekton | Phyto- and zooplankton | Seabirds | Cetaceans, turtles and seals | Sensitive marine habitats | Terrestrial ecology and coastal habitats | Archaeological and cultural resources | Infrastructure | Social conditions | Education and training | Crime and conflict | General economy/<br>industry/energy | Fisheries | Shipping | Tourism | Public health and safety | Landscape and visual<br>amenity |  |  |
| Mobilisation  | Drill ship   | Х           | Х                    |                                  | Х             | Х                  | S                 |                     | Х                      | Х      | Х                      |          | Х                            | Χ                         |  |                                       |                |                   |                        |                    |                                     | Χ         | Χ        |         | S                        |                                 |  |  |
| and<br>positioning<br>in place of<br>MODU/<br>mooring | Semi-submersible platform                                      | х           | х                    | x                                | х             | х                  | s                 |                     | х                      | х      | х                      |          | X                            | х                         |  | X                                     |                |                   |                        |                    |                                     | Х         | Х        |         | S                        |                                 |  |  |
|   | Single well drilling   | Х           | Х                    | Х                                | Х             | Х                  | S                 |                     | Х                      | Х      | Х                      | Х        | Х                            | Χ                         |  | Χ                                     | Х              | S                 |                        |                    |                                     | Χ         | Χ        | Χ       | S                        | S                               |  |  |
|   | Multiple wells drilling  | Х           | х                    | х                                | Х             | Х                  | S                 |                     | Х                      | Х      | х                      | Х        | Х                            | Х                         |  | Х                                     | х              | S                 |                        |                    |                                     | Х         | Х        | Х       | S                        | s                               |  |  |
| Drilling rig  | Physical presence of the MODU                                  |             |                      |                                  |               |                    |                   |                     |                        |        |                        | Х        |                              |                           |  |                                       |                |                   |                        |                    |                                     | Х         | Х        | Х       | S                        | S                               |  |  |
| operation   | Power generation (noise and air emissions)                     | х           | х                    |                                  |               |                    | S                 |                     |                        |        |                        |          |                              |                           |  |                                       |                |                   |                        |                    |                                     |           |          |         |                          |                                 |  |  |
|   | Discharge of drill<br>cuttings and fluids/<br>onshore disposal | х           | х                    |                                  |               |                    |                   | S                   |                        |        |                        |          |                              |                           | S  |                                       | Х              |                   | Х                      |                    | x                                   |           | Х        |         | х                        | S                               |  |  |

|          |   | Phy         | sical          | enviro                           | nme           | nt                 |                   |                     | Biol                   | logic  | al en                  | viror    | nment                        |                           |  |                                       | Soc            | io-ed             | cono                   | mic                |                                     |           |          |         |                          |                                 |
|----------|---|-------------|----------------|----------------------------------|---------------|--------------------|-------------------|---------------------|------------------------|--------|------------------------|----------|------------------------------|---------------------------|--|---------------------------------------|----------------|-------------------|------------------------|--------------------|-------------------------------------|-----------|----------|---------|--------------------------|---------------------------------|
| Activity |   | Air quality | Climate change | Sediment quality/<br>composition | Water quality | Underwater noise * | Above-water noise | Subsurface aquifers | Phyto- and zoo benthos | Nekton | Phyto- and zooplankton | Seabirds | Cetaceans, turtles and seals | Sensitive marine habitats | Terrestrial ecology and coastal habitats | Archaeological and cultural resources | Infrastructure | Social conditions | Education and training | Crime and conflict | General economy/<br>industry/energy | Fisheries | Shipping | Tourism | Public health and safety | Landscape and visual<br>amenity |
|          | Discharge of drill<br>cuttings and fluids<br>/ cuttings re-<br>injection              | S           | S              |                                  |               | s                  | S                 |                     |                        |        |                        |          |                              |                           |  |                                       |                |                   |                        |                    |                                     |           |          |         |                          |                                 |
|          | Discharge of<br>water-based drill<br>cuttings and fluids<br>to sea                    |             |                | S                                | S             |                    |                   |                     | s                      | S      | S                      |          | S                            | S                         |  |                                       |                |                   |                        |                    |                                     | S         |          |         | S                        |                                 |
|          | Discharge of oil/<br>synthetic-based<br>drill cuttings and<br>fluids to sea           | S           | S              | S                                | S             |                    |                   |                     | S                      | S      | S                      |          | S                            | S                         |  |                                       |                |                   |                        |                    |                                     | S         |          |         | S                        |                                 |
|          | Discharge of drill cuttings and fluids/ export of waste                               | Х           | Х              |                                  |               |                    |                   |                     |                        |        |                        |          |                              |                           |  |                                       | Х              |                   |                        |                    |                                     |           | х        |         |                          |                                 |
|          | Other effluent<br>discharges<br>(including routine<br>vessel discharges<br>and waste) |             |                | x                                | х             |                    |                   |                     | х                      | x      | Х                      | x        | Х                            | x                         |  |                                       |                |                   |                        |                    |                                     | х         |          |         |                          |                                 |
|          | Drilling and VSP (underwater noise)   |             |                |                                  |               | Х                  |                   |                     |                        |        |                        |          | Х                            |                           |  |                                       |                |                   |                        |                    |                                     |           |          |         |                          |                                 |

|                    |  | Phy         | /sical         | enviro                           | nme           | nt                 |                   |                     | Biol                   | logic  | al en                  | viror    | nment                        |                           |  |                                       | Socio-economic |                   |                        |                    |                                     |           |          |         |                          |                                 |  |
|--------------------|--|-------------|----------------|----------------------------------|---------------|--------------------|-------------------|---------------------|------------------------|--------|------------------------|----------|------------------------------|---------------------------|--|---------------------------------------|----------------|-------------------|------------------------|--------------------|-------------------------------------|-----------|----------|---------|--------------------------|---------------------------------|--|
| Activity           |  | Air quality | Climate change | Sediment quality/<br>composition | Water quality | Underwater noise * | Above-water noise | Subsurface aquifers | Phyto- and zoo benthos | Nekton | Phyto- and zooplankton | Seabirds | Cetaceans, turtles and seals | Sensitive marine habitats | Terrestrial ecology and coastal habitats | Archaeological and cultural resources | Infrastructure | Social conditions | Education and training | Crime and conflict | General economy/<br>industry/energy | Fisheries | Shipping | Tourism | Public health and safety | Landscape and visual<br>amenity |  |
|                    | Well plugging and abandonment                    | х           | х              | х                                |               |                    |                   |                     | х                      |        |                        |          |                              |                           |  |                                       |                |                   |                        |                    |                                     |           |          |         |                          |                                 |  |
|                    | Chemicals storage offshore                       |             |                |                                  |               |                    |                   |                     |                        |        |                        |          |                              |                           |  |                                       |                |                   |                        |                    |                                     |           |          |         |                          |                                 |  |
|                    | Chemicals storage onshore                        |             |                |                                  |               |                    |                   |                     |                        |        |                        |          |                              |                           |  |                                       | Х              |                   | Х                      |                    |                                     |           |          |         | Х                        |                                 |  |
|                    | Chemicals transportation by sea                  | х           | х              |                                  |               | Х                  |                   |                     |                        |        |                        |          | Х                            |                           |  |                                       |                |                   |                        |                    |                                     |           | х        |         |                          |                                 |  |
|                    | Chemicals<br>transportation by<br>land           | х           | х              |                                  |               |                    |                   |                     |                        |        |                        |          |                              |                           |  |                                       | Х              |                   | х                      |                    |                                     |           |          |         | Х                        |                                 |  |
|                    | Movement of support vessels                      | Х           | Х              |                                  | Х             | х                  | S                 |                     |                        |        |                        |          | Х                            |                           | S  |                                       | х              | S                 |                        | S                  |                                     | Х         | Х        |         | S                        |                                 |  |
| Support activities | Helicopter transfers                             | Х           | Х              |                                  |               |                    | S                 |                     |                        |        |                        | Х        |                              |                           |  |                                       | х              |                   |                        |                    |                                     |           |          |         | Х                        |                                 |  |
|                    | Onshore support facilities/provision of supplies |             |                |                                  |               |                    |                   |                     |                        |        |                        |          |                              |                           |  |                                       | Х              | Х                 | Х                      |                    |                                     |           |          |         |                          |                                 |  |

|            |   |             | sical          | enviro                           | nme           | nt                 |                   |                     | Biol                   | logic  | al en                  | viror    | nment                        |                           |  |                                       | Socio-economic |                   |                        |                    |                                     |           |          |         |                          |                                 |  |  |
|------------|---|-------------|----------------|----------------------------------|---------------|--------------------|-------------------|---------------------|------------------------|--------|------------------------|----------|------------------------------|---------------------------|--|---------------------------------------|----------------|-------------------|------------------------|--------------------|-------------------------------------|-----------|----------|---------|--------------------------|---------------------------------|--|--|
| Activity   |   | Air quality | Climate change | Sediment quality/<br>composition | Water quality | Underwater noise * | Above-water noise | Subsurface aquifers | Phyto- and zoo benthos | Nekton | Phyto- and zooplankton | Seabirds | Cetaceans, turtles and seals | Sensitive marine habitats | Terrestrial ecology and coastal habitats | Archaeological and cultural resources | Infrastructure | Social conditions | Education and training | Crime and conflict | General economy/<br>industry/energy | Fisheries | Shipping | Tourism | Public health and safety | Landscape and visual<br>amenity |  |  |
|            | Gas blowout   | Х           | Х              | S                                | Х             | S                  |                   |                     | S                      | Х      | Х                      | Х        | Х                            | Χ                         | Х  | Χ                                     | Х              | Χ                 |                        |                    | Х                                   | Х         | Χ        | Х       | Х                        | S                               |  |  |
|            | Oil spill   | Х           | Х              | S                                | Х             |                    |                   |                     | S                      | Х      | Χ                      | Х        | Χ                            | Χ                         | Х  | X                                     | Χ              | Х                 |                        |                    | Х                                   | Х         | Χ        | Х       | Χ                        | S                               |  |  |
| Accidental | Spills of fuel and chemicals at sea                               | S           | S              | Х                                | Х             |                    |                   |                     | Х                      | Х      | Х                      | Х        | X                            | Х                         | Х  | Х                                     | Х              | Х                 |                        |                    | Х                                   | Х         | Х        | Х       | Х                        | S                               |  |  |
| events     | Collisions/<br>transportation and<br>storage accidents<br>onshore |             |                |                                  |               |                    |                   |                     |                        |        |                        |          |                              |                           | S  | S                                     | S              | S                 |                        | S                  | S                                   |           | S        | S       | S                        |                                 |  |  |
|            | Loss of stability   |             |                |                                  |               |                    |                   |                     |                        |        |                        |          |                              |                           |  | Χ                                     |                | Χ                 |                        |                    | Х                                   |           | Χ        | Х       | Х                        |                                 |  |  |

Notes: \* underwater noise is not assessed as a receptor in itself, impacts of underwater noise are assessed on various other receptors (marine mammals, turtles and fish).

# Impacts now considered under different activities

The impacts from "plugging and abandoning" the well following the completion of drilling are not dissimilar to those considered under "drill rig mobilisation, installation and demobilisation" and are therefore included in the same activity category in the EIA chapter.

Additionally, impacts on seabirds from single well, multiple well drilling and physical presence of the MODU can be found under Light spill from MODU (MAE 20).

## Individual impacts screened out

The above text has explained the links between the terms used in the SEA and EIA for activities and receptors and has identified whole activities or receptors that have been screened out of the assessment for various reasons. The table above shows the individual impacts that are screened out from the scoping report, justifications for screening out impacts from the SEA to the scoping stage is included in the scoping report. The following sections review, by activity, which impacts that were identified in the preliminary impacts matrix have been screened out of the Block 4 impact assessment, and the reasons for each screened out impact.

# **Environmental receptors**

All impacts from the scoping report are covered in the EIA for

- water quality
- fish
- plankton
- seabirds
- · cetaceans, turtles and seals.

# **Seabirds**

Impacts from a shallow gas blowout on seabirds are not expected. It is assumed that a shallow gas release would result in relatively low volumes of gas being released in a small geographic area, where the MODU is located, and that effects in such a limited area would not affect seabirds.

Impacts from a release of condensate are discussed in Chapter 6 – Impact Assessment.

#### Sensitive marine habitats

There are no residual impacts identified for sensitive marine habitats from other effluent discharges (including routine vessel discharges and waste) but features of these sensitive habitats are assessed such as seabirds, benthos and seals.

### Terrestrial ecology and coastal habitats

There is no impact assessed for discharge of drill cuttings and fluids/onshore disposal. This is because the Project will contract a licenced waste contractor who will be responsible for removal of waste from the logistics base and disposing of it to a licenced site. Waste disposal falls outside the scope of this EIA. However, the waste contractor will have a waste management plan that falls in line with the waste management plan described in Chapter 8.

Furthermore, there are no potential impacts movement of support vessels during routine operations in regard to terrestrial and coastal habitats that are not discussed in other sections, such as 'other effluent discharges (including routine vessel discharges and waste)'.

## **Social receptors**

All impacts covered in the scoping are covered for this EIA for

- archaeological and cultural resources
- infrastructure
- education and training
- general economy
- fisheries
- shipping
- tourism.

#### Social conditions

Social conditions were not assessed explicitly in reference to the single and multiple well drilling, or the movement of support vessels as safety and security is outside the scope of this EIA, although normal drilling operations include a mandatory 500 m safety zone around MODU, and a support vessel patrolling this area to ensure safety and security (see MAS 02: shipping).

#### Public health

Impacts to public health were not assessed for the offshore routine activities of the drilling rig operations, including mobilisation and positioning of the MODU and movement of support vessels. This was because the potential residual impacts on air quality were negligible from these activities and above water noise impacts were not assessed. Therefore, there are no potential impacts on public health from a decrease in air quality or increase in noise emissions. Also, as residual impacts to fisheries from a reduction in water quality are not anticipated (MAS 02: fisheries), no potential impact to public health through fish was assessed.

# **Accidental impacts**

### Air quality and climate change

Accidental impacts are not expected to have a significant impact on air quality and climate change and therefore spills of fuel and chemicals at sea affecting air quality or climate change has been screened out.

## Sediment quality/composition and benthos

Sediment quality/composition and benthos is not assessed as a receptor for a gas blowout and oil spill because the condensate is not considered to have a potential impact on the seabed and will move to the surface and/or volatilise. The well is being drilled for natural gas and not oil, however there is potential for condensate mixed in with gas in the well. This condensate is very light (lighter than water) and would rise to the surface, creating a thin sheen, from which it would volatilise. None of the modelling shows that the condensate will descend onto the seabed.

## **Underwater noise**

Underwater noise is not specifically assessed for a gas blowout, as it would be the cause of an impact to other receptors (see reasoning for not including underwater noise as a receptor overall). The noise from a gas blowout would be instantaneous, unpredictable and unavoidable should such an accident occur. The mitigation measures in place to reduce the likelihood of a blowout will help avoid this event and underwater noise having a resulting impact on marine mammals, fish and turtles in the AOI.





[This page has intentionally been left blank.]

#### **Total Exploration and Production Liban Sal**

# Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 6.2 Bonn Agreement Colour Code Classification

80754









[This page has intentionally been left blank.]

**Table A1: Bonn Agreement Colour Code classification** 

| Code | Description                   | Layer thickness<br>(µm) | Litres per km <sup>2</sup> |
|------|-------------------------------|-------------------------|----------------------------|
| 1    | Sheen (silver / grey)         | 0.04 – 0.3              | 40 – 300                   |
| 2    | Rainbow                       | 0.3 – 5.0               | 300 – 5000                 |
| 3    | Metallic                      | 5 – 50                  | 5000 - 50,000              |
| 4    | Discontinuous true oil colour | 50 – 200                | 50,000 - 200,000           |
| 5    | Continuous true oil colour    | > 200                   | > 200,000                  |





[This page has intentionally been left blank.]

### **Total Exploration and Production Liban Sal**

## Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 8.1 Commitments Register

80754









[This page has intentionally been left blank.]

| UID   | ESIA Section<br>References (Aspect<br>Codes) | Project Phases / Activity<br>/ Aspect  | Receptors   | Mitigation  | Responsible Party (for implementation)  | Project Documentation<br>(environmental and social<br>management plan, standards,<br>ESMP matrix, etc) | Operation of a grievance procedure/mech anism | Incident reporting and investigation | Audits by the contractor | Performance<br>monitoring |
|-------|--|--|---|---|---|--|---|--------------------------------------|--------------------------|---------------------------|
| BIO-2 | MAE18  | Underwater noise from vertical seismic profile (VSP) activities  | Nekton (fish); Cetaceans,<br>turtles and seals  | Use of soft start procedures for VSP airguns.   | Drilling and Acquisition Contractor   | Environmental Standard   |   |                                      |                          | Y                         |
| BIO-3 | MAE18  | Underwater noise from vertical seismic profile (VSP) activities  | Nekton (fish); Cetaceans,<br>turtles and seals  | Use of trained MMOs during VSP operations for monitoring of mitigation exclusion zone (radius 500 m) and delay in start-up of airguns if cetaceans (or turtles) observed within zone.   | Drilling and Acquisition Contractor   | Environmental Standard   |   |                                      |                          | Y                         |
| BIO-4 | MAE18  | Underwater noise from vertical seismic profile (VSP) activities  | Nekton (fish); Cetaceans, turtles and seals   | Use of PAM devices for cetacean detection prior to VSP operations during hours of darkness / reduced visibility.  | Drilling and Acquisition Contractor   | Environmental Standard   |   |                                      |                          | Y                         |
| BIO-5 | MAS02  | MODU mobilisation,<br>installation, plug and<br>abandonment and<br>demobilisation; MODU<br>operations    | Seabed quality / composition; Benthos; Sensitive seabed habitats; Water quality, air quality, UW noise; Archaeological and cultural resources     | If a semi-submersible is selected impacts will be minimised by ROV survey of the seabed to select optimum anchor positions that avoid sensitive seabed features.  | TEP Liban;  | Drill Site Assessment  |   |                                      |                          | Y                         |
| CH-1  | MAS02  | MODU operations  | Archaeological and cultural resources   | Avoid existing known cultural heritage and archaeological sites and comply with their protection regimes according to regulatory requirements (Antiquities System Decision 166/1933 and Cultural properties Law 37/2008   | TEP Liban;  | Social Management Plan   |   |                                      |                          | Y                         |
| CH-2  | MAS02  | MODU operations  | Fisheries; Archaeological<br>and cultural resources;<br>Benthos; Archaeological<br>and cultural resources   | Predrill wellsite assessments will be completed to provide high-<br>resolution bathymetric and 3D/2D seismic data to identify seabed<br>geohazards, habitat and, detect archaeological sites previously not<br>detected; to inform avoidance measures and a wellsite free of<br>geohazards. | TEP Liban; Drilling Contractor;   | Drill Site Assessment; Company<br>Rules  |   |                                      |                          | Y                         |
| CM-1  | MAS02  | of cuttings and WBDFs;<br>Drilling of lower well<br>sections using HPWBDF -<br>discharge of cuttings and | Seabed quality / composition; Benthos; Sensitive seabed habitats; Nekton (fish); Water quality; Plankton; Cetaceans, turtles and seals; Fisheries | Barite will meet heavy metals concentration standards i.e. mercury <1 mg/kg and cadmium <3 mg/kg dry weight (total).  | TEP Liban; Drilling Fluids<br>Contractor  | Scope of Work; Chemical<br>Management Procedure  |   |                                      |                          | Y                         |
| CM-2  | MAE05; MAS02; AE2;<br>AE4; AE9; AE12.        | Drilling of lower well sections using HPWBDF -   |   | Majority of chemicals proposed are HQ Band Gold; OCNS Group E; or PLONOR and; have characteristics of: lowest toxicity, lowest bioaccumulation potential and highest biodegradation. The only exception is BORE-HIB (OCNS Group D) which is used in small quantities.                       | TEP Liban; Drilling Contractor;<br>Supply Vessel Contractor; Logistics<br>Base Contractor; Fluids Contractor<br>Drilling and Acquisition Contractor |  |   |                                      |                          | Y                         |
| CM-3  |  | Chemicals transfer and storage   | None providing chemicals managed properly   | All chemicals will be packaged according to manufacturer's instructions.  | Drilling Contractor; Supply Vessel Contractor;  | Chemicals Management Plan;<br>Company Rules  |   |                                      |                          | Y                         |
| CM-4  |  | Chemicals transfer and storage   | None providing chemicals managed properly   | Labelling will comply with regulatory requirements in terms of format and composition.  | TEP Liban; Drilling Contractor;<br>Supply Vessel Contractor; Logistics<br>Base Contractor; Fluids Contractor<br>Drilling and Acquisition Contractor | Chemicals Management Plan  |   |                                      |                          | Y                         |
| CM-5  |  | Chemicals transfer and storage   | None providing chemicals<br>managed properly  | Chemical products that are required at the MODU (and haven't beer pre-mixed onshore) will be packed into mini containers, or open cargo carrying units (CCUs), that are certified and appropriately colour coded for safe transfer from jetty to supply vessel and supply vessel to MODU    | Supply Vessel Contractor; Logistics   |  |   |                                      |                          | Y                         |

| UID    | ESIA Section<br>References (Aspect<br>Codes) | Project Phases / Activity<br>/ Aspect  | Receptors   | Mitigation  | Responsible Party (for implementation)   | Project Documentation<br>(environmental and social<br>management plan, standards,<br>ESMP matrix, etc) | Operation of a<br>grievance<br>procedure/mech<br>anism | Incident reporting and investigation | Audits by the contractor | Performance<br>monitoring |
|--------|--|--|---|---|--|--|--|--------------------------------------|--------------------------|---------------------------|
| CM-6   | MAE21  | Chemicals transfer and storage   | None providing chemicals<br>managed properly  | MSDS will be present onboard the supply boat during transfer and on the MODU.   | TEP Liban; Drilling Contractor;<br>Supply Vessel Contractor; Logistics<br>Base Contractor; Fluids Contractor;<br>Drilling and Acquisition Contractor | Chemicals Management Plan  |  |                                      |                          | Y                         |
| CM-7   | MAE21  | Chemicals transfer and storage   | None providing chemicals<br>managed properly  | All personnel involved in the transfer and handling or all personnel who might be exposed to hazardous chemicals will be trained on the potential hazards involved.         | TEP Liban; Drilling Contractor;<br>Supply Vessel Contractor; Logistics<br>Base Contractor; Fluids Contractor;<br>Drilling and Acquisition Contractor | Chemicals Management Plan  |  |                                      |                          | Y                         |
| CM-8   | MAE21; OAE05; AE2                            | Chemicals transfer and<br>storage; Logistics base<br>operation – chemicals<br>management; Loss of<br>chemical containment<br>onboard MODIL | None providing chemicals<br>managed properly  | Chemicals will be stored separately according to their potential hazard and compatibility.  | Drilling Contractor; Supply Vessel<br>Contractor; Logistics Base<br>Contractor;  | Chemicals Management Plan  |  |                                      |                          | Y                         |
| CM-9   | MAE21  | Chemicals transfer and storage   | None providing chemicals managed properly   | A full register of all chemicals inventory and consumption records shall be maintained on each site.  | Drilling Contractor; Supply Vessel<br>Contractor; Logistics Base<br>Contractor   | Chemicals Management Plan  |  |                                      |                          | Υ                         |
| CM-10  | AE2  | Loss of chemical containment onboard MODU  | Sediment quality /<br>composition; Water<br>quality; Benthos;<br>Plankton; Fish; Fisheries  | Chemical storage onboard the MODU will be restricted.   | Drilling Contractor; Supply Vessel<br>Contractor; Logistics Base<br>Contractor   | Handling and Storage of<br>Hazardous Materials; Rig<br>Environmental Aspects and<br>Impacts Register   |  |                                      |                          | Y                         |
| CM-11  | AE3  | Radioactive source lost in hole  | Sediment quality / composition  | Only sealed radioactive sources used.   | Drilling Contractor  | Contractor's Radiation Standard;<br>Company Rules; Scope of Work                                       |  |                                      |                          | Υ                         |
| DC-1   | MAE01; MAS01;<br>MAS02                       | MODU mobilisation,<br>installation, plug and<br>abandonment and<br>demobilisation; MODU<br>operations                                      | Seabed quality / composition; Benthos; Sensitive seabed habitats; Water quality, air quality, UW noise; Archaeological and cultural resources | A plugging and abandonment programme will be submitted to respective authorities as part of the Advanced Drilling Plan (ADP) before drilling begins.                        | TEP Liban;   | Advanced Drilling Plan   |  |                                      |                          | Y                         |
| HSS-1  | OAS02  | Transport of materials to /<br>from the logistics base<br>(vessel and vehicle<br>activity)   | Social Conditions (Road safety and congestion)  | Speed restrictions will always be adhered to, these will be defined in a driving and transportation policy. Speed limits around Logistics Base will be 20 km/hour.          | TEP Liban; Logistics Base<br>Contractor;   | Social Management Plan;<br>Logistics Base Contract   |  |                                      |                          | Y                         |
| HSS-2  | OAS02  | Transport of materials to /<br>from the logistics base<br>(vessel and vehicle<br>activity)   | Infrastructure (Road network)   | A vehicle movement plan will be developed and implemented at the logistics base   | TEP Liban; Logistics Base<br>Contractor;   | Social Management Plan;<br>Logistics Base Contract   |  |                                      |                          | Υ                         |
| HSS-3  | OAS02  | Transport of materials to / from the logistics base (vessel and vehicle activity)  | Infrastructure (Road network)   | Logistics contractor shall comply with driving and transportation policy requirements under the contract including speed limits and slow speeds when crossing villages etc. | TEP Liban; Logistics Base<br>Contractor;   | Social Management Plan;<br>Logistics Base Contract   |  |                                      |                          | Y                         |
| HSS-4  | AE1  | Dropped Object from  | Sediment quality/<br>composition; Benthos   | Lifting equipment and cranes will be certified and be subject to a  | TEP Liban; Drilling Contractor   | Bridging Document; Scope of Work   |  |                                      |                          | Υ                         |
| HSS-5  | AE1  | MODU (lifting)  Dropped Object from  | Sediment quality/   | preventative maintenance programme. Crane operators will be certified.  | TEP Liban; Drilling Contractor   | Bridging Document; Scope of  |  |                                      |                          | Υ                         |
| HSS-6  | AE1  | MODU (lifting) Dropped Object from MODU (lifting)  | composition; Benthos Sediment quality/ composition; Benthos   | Lifting will be carried out in accordance with HSE bridging document agreed between Total E&P Liban and the drilling contractor.  | TEP Liban; Drilling Contractor   | Work Bridging Document; Scope of Work  |  |                                      |                          | Υ                         |
| HSS-7  | AE5  | Shallow gas blowout,<br>release of gas into water<br>column during riserless<br>operations   | Air quality; Water quality;<br>Sediment quality /<br>composition; Benthos;<br>Plankton; Fish; Fisheries;<br>Shipping                          | First two sections of well will be drilled riserless. If shallow gas encountered, it will be released at seabed with no impact on MODU.                                     | TEP Liban; Drilling Contractor   | Drill Site Assessment  |  |                                      |                          |                           |
| HSS-8  |  | Collision of third party<br>ship with MODU – release<br>of third party fuel<br>inventory, possible<br>damage to MODU and<br>riser          | Water quality; Plankton;<br>Fish; Seabirds;<br>Cetaceans, turtles &<br>seals; Sensitive marine<br>habitats (offshore);<br>Fisheries; Shipping | Support vessel will be at well site providing security and safety (fire fighting, etc) and will alert any vessels on a collision course.                                    | TEP Liban; Supply Vessel<br>Contractor   | Scope of Work  |  |                                      |                          | Y                         |
| HSS-9  |  | Collision of third party<br>ship with MODU – release<br>of third party fuel<br>inventory, possible<br>damage to MODU and<br>riser          | Water quality; Plankton;<br>Fish; Seabirds;<br>Cetaceans, turtles &<br>seals; Sensitive marine<br>habitats (offshore);<br>Fisheries; Shipping | There will be 24/7 radio communications and watches.  | TEP Liban; Supply Vessel<br>Contractor   | Scope of Work  |  |                                      |                          | Y                         |
| HSS-10 | AE8  | Helicopter crash on<br>MODU deck – release of<br>aviation fuel to sea  | Water quality; Plankton   | Selection procedure in place for certified helicopter contractor, and flying crew will be certified.  | TEP Liban; Helicopter Contractor;  | Company Rules; Scope of Work   |  |                                      |                          | Υ                         |

| UID    | ESIA Section<br>References (Aspect<br>Codes) | Project Phases / Activity<br>/ Aspect  | Receptors  | Mitigation  | Responsible Party (for implementation)   | Project Documentation<br>(environmental and social<br>management plan, standards,<br>ESMP matrix, etc) | Operation of a grievance procedure/mech anism | Incident reporting and investigation | Audits by the contractor | Performance<br>monitoring |
|--------|--|--|--|---|--|--|---|--------------------------------------|--------------------------|---------------------------|
| HSS-11 |  | Helicopter crash on<br>MODU deck – release of<br>aviation fuel to sea  | Water quality; Plankton  | Helicopters will only operate within their weather limits and during daylight hours (except in case of MEDEVAC which is not restricted to daylight flights).  | TEP Liban; Helicopter Contractor;  | Company Rules; Scope of Work   |   |                                      |                          | Υ                         |
| HSS-12 | AE10   |  | Water quality; Plankton;<br>Fish; Seabirds;<br>Cetaceans, turtles &<br>seals; Sensitive marine<br>habitats (offshore);<br>Coastal habitats;<br>Fisheries; Shipping;<br>Tourism; Public health;<br>Social conditions;<br>General economy /<br>industry; Infrastructure;<br>Archaeological and<br>cultural resources | Marine crew will be certified.  | Drilling Contractor  | HSE Training Plan  |   |                                      |                          | Y                         |
| HSS-13 | OAS01  | Logistics base operations  | Social Conditions<br>(Security)  | The logistics base operator will cooperate with General Security of the Port and regularly assess security risks through Security Plan as required under their contractual conditions with TEP Liban.   | TEP Liban; Logistics Base<br>Contractor;                                       | Logistics Base Contract  |   |                                      |                          |                           |
| HSS-14 | AE10   | fuel inventory   | Water quality; Plankton;<br>Fish; Seabirds;<br>Cetaceans, turtles &<br>seals; Sensitive marine<br>habitats (offshore);<br>Coastal habitats;<br>Fisheries; Shipping;<br>Tourism; Public health;<br>Social conditions;<br>General economy /<br>industry; Infrastructure;<br>Archaeological and<br>cultural resources | MODU will only operate within weather limit.  | TEP Liban; Drilling Contractor;  | Riser Analysis; Rig Specifications;<br>Bridging Document   |   |                                      |                          | Y                         |
| HSS-15 | MAS01  | MODU mobilisation,<br>installation, plug and<br>abandonment and<br>demobilisation  | Shipping   | Ensure sea users are aware of drilling programme activities and presence of safety zone during mobilisation and demobilisation through a Notice to Mariners (The schedule of activities will be communicated to the Ministry of Public Works and Transport and the Lebanese Navy via the Lebanese Armed Forces (LAF) that issues information and instructions to mariners pertaining to shipping hazards and safety zones). | TEP Liban;   | Social Management Plan   |   |                                      |                          | Y                         |
| HSS-16 | OAS01  | Logistics base operation   | Tourism  | Logistics base operator will be selected based on strict HSE criteria compliant with international regulations for oil and gas activities and applicable TOTAL E&P rules.   | TEP Liban;   | Company Rules; Scope of Work   |   |                                      |                          |                           |
|        | MAE01; MAS01;<br>MAS02; AE1                  | abandonment and<br>demobilisation; Drilling of<br>riserless top hole sections  |  | ROV survey will be conducted after drilling operations are complete to provide status of the seafloor condition around the wellsite.  | TEP Liban  | Advanced Drilling Plan   |   |                                      | Y                        | Y                         |
|        | MAE04; MAE16;<br>MAE17                       | Drilling of lower well   | Air quality; Climate change  | Air emissions data (including GHG information) emissions data will be submitted to the MoE.   | Drilling Contractor; Supply Vessel<br>Contractor; Logistics Base<br>Contractor | Pollution Prevention and<br>Environmental Monitoring Plan  |   |                                      | Y                        | Υ                         |
| MR-3   | MAE18  | Underwater noise from vertical seismic profile (VSP) activities  | Nekton (fish); Cetaceans,<br>turtles and seals   | Reporting of marine mammal monitoring results and findings of real-time mitigation to ACCOBAMS.   | TEP Liban; Drilling Contractor;  | Pollution Prevention and<br>Environmental Monitoring Plan  |   |                                      | Υ                        | Y                         |
| MR-4   | MAE22  | Logging using radioactive<br>sealed sources (also<br>applicable to onshore<br>storage and transport of<br>radioactive sealed<br>sources) | None under normal operations   | Radioactive sources will be managed in line with international regulations.   | Drilling and Acquisition Contractor  | Contractor's Radiation Standard;<br>Company Rules; Scope of Work                                       |   |                                      | Y                        | Y                         |
| MR-5   | OAE01  | Logistics base operation - emissions to air  | Air quality; Climate change  | Logistics base operator will monitor consumption of fuel in order to calculate air emission quantities.   | TEP Liban; Logistics Base<br>Contractor  | Logistics Base Contract  |   |                                      | Υ                        | Υ                         |

| UID   | ESIA Section<br>References (Aspect<br>Codes) | Project Phases / Activity<br>/ Aspect   | Receptors   | Mitigation   | Responsible Party (for implementation) | Project Documentation (environmental and social management plan, standards, ESMP matrix, etc)  Operation of a grievance procedure/mech anism | Incident reporting and investigation | Audits by the contractor | Performance<br>monitoring |
|-------|--|---|---|--|--|--|--------------------------------------|--------------------------|---------------------------|
| MR-6  | OAE04  | Logistics base operation – waste management   | None providing waste managed properly   | The logistics base contractor will ensure vehicles transporting hazardous wastes from site have appropriate certification / licence to transport wastes of the particular carried waste codes (R).                             | Logistics Base Contractor;             | Waste Management Plan; IMDG  |                                      | Υ                        | Y                         |
| MR-7  | OAE04  | Logistics base operation –  |   | Waste Transfer Notes signed by all parties will be sent to TEP Liban   | Logistics Base Contractor;             | Waste Management ; Logistics Base Contract   |                                      | Υ                        | Υ                         |
| MR-8  | OAE05  | waste management Logistics base operation – chemicals management                                  | managed properly None providing chemicals managed properly  | by logistics base contractor and copies retained on site.  A certified fire fighting and fire alarm system will be installed at the Logistics base chemical storage areas, with remote alarm control installed in the offices. | Logistics Base Contractor;             | Logistics Base Contract; HSE<br>Plan   |                                      | Υ                        | Υ                         |
| MR-9  | OAE05  | Logistics base operation – chemicals management   | None providing chemicals managed properly   | Logistics base contractor will keep and maintain a register of dangerous and hazardous goods stored on location along with relevant copies of MSDS (Material Safety Data Sheets) and dangerous goods (DG) declarations.        | Logistics Base Contractor;             | Chemical Management Plan;<br>Logistics Base Contract   |                                      | Y                        | Y                         |
| MR-10 | AE4  | Riser rupture, release of drilling fluid to sea   | Sediment quality /<br>composition; Water<br>quality; Benthos;<br>Plankton; Fish; Fisheries  | Riser fatigue analysis will be carried out and riser joints fully inspected and changed if necessary.  | Drilling Contractor                    | Riser Analysis   |                                      | Y                        | Y                         |
| MR-11 |  |   | Sediment quality / composition; Water quality; Benthos; Plankton; Fish; Seabirds; Cetaceans, turtles & seals; Sensitive marine habitats (offshore); Coastal habitats; Fisheries; Shipping; Tourism; Public health; Social conditions; General economy / industry; Infrastructure; Archaeological and cultural resources | Daily metocean and weather forecast will be assessed during operations.  | Drilling Contractor                    | Riser Analysis   |                                      | Y                        | Y                         |
| MR-12 | AE4; AE6                                     | Riser rupture, release of<br>drilling fluid to sea;<br>Blowout – release of<br>condensate and gas | Sediment quality / composition; Water quality; Benthos; Plankton; Fish; Fisheries; Air quality; Seabirds; Cetaceans, turtles & seals; Coastal habitats; Fisheries; Shipping; Tourism; Public Health; Social conditions; General economy / industry; Infrastructure; Archaeology and cultural resources                  | Rig acceptance audit will be carried out.  | TEP Liban; Drilling Contractor;        | Rig contract   |                                      | Y                        | Y                         |
| MR-13 | AE5  | Shallow gas blowout,<br>release of gas into water<br>column during riserless<br>operations        | Air quality; Water quality;<br>Sediment quality /<br>composition; Benthos;<br>Plankton; Fish; Fisheries;<br>Shipping  | ROV monitoring will be carried out during riserless operations.  | TEP Liban; ROV Contractor;             | Drilling Program   |                                      | Y                        | Y                         |
| MR-14 | AE6  |   | Air quality; Water quality;<br>Plankton; Fish; Seabirds;<br>Cetaceans, turtles &<br>seals; Coastal habitats;<br>Fisheries; Shipping;<br>Tourism;<br>Public Health; Social<br>conditions; General<br>economy / industry;<br>Infrastructure;<br>Archaeology and cultural<br>resources                                     | Pore pressure will be closely monitored (flow checks).   | TEP Liban; Drilling Contractor;        | Drilling Program; Company Rules  |                                      | Y                        | Y                         |
| MR-15 | AE6  | Blowout – release of condensate and gas   | Air quality; Water quality;<br>Plankton; Fish; Seabirds;<br>Cetaceans, turtles &<br>seals; Coastal habitats;<br>Fisheries; Shipping;<br>Tourism;<br>Public Health; Social<br>conditions; General<br>economy / industry;<br>Infrastructure;<br>Archaeology and cultural<br>resources                                     | Integrity of cementing operations will be checked.   | TEP Liban; Drilling Contractor;        | Drilling Program; Company Rules  |                                      | Y                        | Y                         |

| UID   | ESIA Section<br>References (Aspect<br>Codes) | Project Phases / Activity<br>/ Aspect   | Receptors   | Mitigation  | Responsible Party (for implementation)  | (environmental and social       | Operation of a<br>grievance<br>rocedure/mech<br>anism | Incident reporting and investigation | Audits by the contractor | Performance<br>monitoring |
|-------|--|---|---|---|---|---------------------------------|---|--------------------------------------|--------------------------|---------------------------|
| MR-16 | AE6  |   | Air quality; Water quality;<br>Plankton; Fish; Seabirds;<br>Cetaceans, turtles &<br>seals; Coastal habitats;<br>Fisheries; Shipping;<br>Tourism;<br>Public Health; Social<br>conditions; General<br>economy / industry;<br>Infrastructure;<br>Archaeology and cultural<br>resources | BOP and well control equipment testing will be conducted.   | TEP Liban; Drilling Contractor;         | Drilling Program; Company Rules |   |                                      | Y                        | Y                         |
| MR-17 | AE6  | Blowout – release of condensate and gas   | Air quality; Water quality;<br>Plankton; Fish; Seabirds;<br>Cetaceans, turtles &<br>seals; Coastal habitats;<br>Fisheries; Shipping;<br>Tourism;<br>Public Health; Social<br>conditions; General<br>economy / industry;<br>Infrastructure;<br>Archaeology and cultural<br>resources | All spills in Lebanese waters will be reported to the Joint Maritime Operations Chamber (JMOC).   | TEP Liban                               | Oil Spill Contingency Plan      |   | Y                                    | Y                        | Ÿ                         |
| MR-18 | AE6  | Blowout – release of condensate and gas   | Air quality; Water quality;<br>Plankton; Fish; Seabirds;<br>Cetaceans, turtles &<br>seals; Coastal habitats;<br>Fisheries; Shipping;<br>Tourism;<br>Public Health; Social<br>conditions; General<br>economy / industry;<br>Infrastructure;<br>Archaeology and cultural<br>resources | Transboundary impacts will be communicated to Lebanese authorities so that they can notify and consult with potentially affected neighbouring countries.  | TEP Liban                               | Oil Spill Contingency Plan      |   | Y                                    | Y                        | Y                         |
| MR-19 |  | Collision of third party<br>ship with MODU – release<br>of third party fuel<br>inventory, possible<br>damage to MODU and<br>riser                       | Water quality; Plankton;  | MODU position and 500 m exclusion zone will be notified to the authorities.   | TEP Liban; Supply Vessel<br>Contractor; | Stakeholder Engagement Plan     |   |                                      | Y                        | Y                         |
| MR-21 |  | to supply vessels at logistics base quay side – release of drilling fluids /  | Water quality; Plankton;<br>Nekton (fish); Tourism -<br>logistics base located<br>close to yachting club;<br>Cetaceans turtles and<br>seals; Sediment quality /<br>composition; Benthos;<br>Fisheries   | Transfer hoses will have valve fittings that allow spill free connection and disconnection.   | Logistics Base Contractor;              | MGO Contract                    |   |                                      | Y                        | Y                         |
| MR-22 |  | logistics base quay side –<br>release of drilling fluids /<br>diesel to sea; Loss of  | Water quality; Tourism -<br>logistics base located<br>close to yachting club;<br>Sediment quality /<br>composition; Water<br>quality; Benthos;<br>Plankton; Fish; Fisheries   | Certified and pressure tested transfer hoses will be used that are visually inspected before use.   | Logistics Base Contractor;              | MGO Contract                    |   |                                      | Y                        | Y                         |
| MR-23 | AE12   | Loss of containment<br>during materials transfer<br>to supply vessels at<br>logistics base quay side –<br>release of drilling fluids /<br>diesel to sea | Water quality; Tourism -<br>logistics base located<br>close to yachting club  | Periodic inspections of oil spill kits and restocking of kits will be carried out by the logistics base contractor.   | Logistics Base Contractor;              | Industry best practice          |   |                                      | Y                        | Y                         |
| PE-1  |  | Well test of possible   | Air quality; Climate change   | A permit will be obtained from the Ministry of Energy and Water for flaring during well test (R) and TEP Liban will inform the MoE for environmental clearance.   | TEP Liban                               | Advanced Drilling Plan          |   |                                      |                          | Y                         |
| PE-2  |  | Logging using radioactive<br>sealed sources (also<br>applicable to onshore<br>storage and transport of<br>radioactive sealed<br>sources)                | None under normal operations  | A permit will be obtained by the Contractor for the import, storage, use and export of radioactive materials from the Lebanese Atomic Energy Commission, a department of the Ministry of Public Health. | Drilling and Acquisition Contractor     | Scope of Work                   |   |                                      |                          | Y                         |

| UID  | ESIA Section<br>References (Aspect<br>Codes) | Project Phases / Activity<br>/ Aspect   | Receptors   | Mitigation  | Responsible Party (for implementation)            | Project Documentation<br>(environmental and social<br>management plan, standards,<br>ESMP matrix, etc) | Operation of a<br>grievance<br>procedure/mech<br>anism | Incident reporting and investigation | Audits by the contractor | Performance<br>monitoring |
|------|--|---|---|---|---|--|--|--------------------------------------|--------------------------|---------------------------|
| PL-1 | OAE04  | Logistics base operation –<br>waste management  | None providing waste managed properly   | Hazardous waste storage area will be designed as follows: Storage on an impervious surface connected to a drainage and collection system and/or in a bunded area; Storage area equipped with suitable fire-fighting equipment and spillage recovery equipment such as shovels and absorbent materials; Restricted/controlled area and access to the storage site. | Logistics Base Contractor;                        | Waste Management Plan;<br>Logistics Base Contract  |  |                                      |                          | Y                         |
| PL-2 | AE4  | Riser rupture, release of drilling fluid to sea   | Sediment quality /<br>composition; Water<br>quality; Benthos;<br>Plankton; Fish; Fisheries  | Upfront analysis of metocean data will be carried out in order to adapt riser equipment.  | Drilling Contractor                               | Riser Analysis   |  |                                      |                          | Y                         |
| PL-3 | AE6  | Blowout – release of<br>condensate and gas  | Air quality; Water quality;<br>Plankton; Fish; Seabirds;<br>Cetaceans, turtles &<br>seals; Coastal habitats;<br>Fisheries; Shipping;<br>Tourism;<br>Public Health; Social<br>conditions; General<br>economy / industry;<br>Infrastructure;<br>Archaeology and cultural<br>resources | Drilling fluid weight and properties will be controlled.  | TEP Liban; Drilling Fluids<br>Contractor          | Drilling Program; Company Rules  |  |                                      |                          | Υ                         |
| PL-4 | AE6  | Blowout – release of condensate and gas   | Air quality; Water quality; Plankton; Fish; Seabirds; Cetaceans, turtles & seals; Coastal habitats; Fisheries; Shipping; Tourism; Public Health; Social conditions; General economy / industry; Infrastructure; Archaeology and cultural resources                                  | Well shut in and well control procedure will be in place.   | TEP Liban; Drilling Contractor;                   | Drilling Program; Company Rules;<br>DrillSafe Audit Report   |  |                                      |                          | Y                         |
| PL-5 | AE8  | Helicopter crash on<br>MODU deck – release of<br>aviation fuel to sea   | Water quality; Plankton   | Helideck will meet CAP 437 specs for lights, illumination, marking, net, dimension, integrity, certification.   | TEP Liban; Helicopter Contractor;                 | Helicopter Contract; Company<br>Rules  |  |                                      |                          | Y                         |
| PP-1 | MAE02; MAS02                                 | Drilling of riserless top<br>hole sections - discharge<br>of cuttings and WBDFs;  | Seabed quality /<br>composition; Benthos;<br>Sensitive seabed<br>habitats; Nekton (fish)  | Seawater used for drilling the 36" well section.  | TEP Liban; Drilling Fluids<br>Supervisor          | Advanced Drilling Plan; Drilling<br>Program  |  |                                      |                          | Y                         |
| PP-2 | MAE05  | Cementing discharges during drilling  | Seabed quality / composition; Benthos   | Discharge of cement to seabed only from 20" casing.   | TEP Liban; Drilling Fluids<br>Supervisor          | Drilling Program   |  |                                      |                          | Y                         |
| PP-3 | MAE05  | Cementing discharges during drilling  | Seabed quality / composition; Benthos   | Careful monitoring of cement discharges using an ROV to ensure discharges are kept to a minimum.  | TEP Liban; Drilling Fluids<br>Supervisor          | Drilling Program   |  |                                      |                          | Y                         |
| PP-4 | MAE06; MAS02                                 | Pipe dope discharges<br>during drilling; MODU<br>operations   | Water quality; Plankton;<br>Nekton (fish)   | A pipe dope product that is heavy metal free will be selected for the drilling operations.  | TEP Liban; TRS Contractor                         | TRS Contract & Scope of Work   |  |                                      |                          | Y                         |
| PP-5 |  |   | Water quality; Plankton;<br>Nekton (fish)   | Drainage water from process areas will go to closed drains and only water from non-process areas to open drains.  | Drilling Contractor; Supply Vessel<br>Contractor; | Contractor's Hazard Register   |  |                                      |                          | Y                         |
| PP-6 |  | Discharge of drainage<br>water (deck drainage, fire<br>water, bilge water and<br>slop water) from MODU<br>and support/supply<br>vessels; MODU<br>operations | Water quality; Plankton;<br>Nekton (fish)   | Deck drainage (clean drains) will only be discharged to sea as long as no visible sheen is observable (sea surface monitored during discharge).   | Drilling Contractor; Supply Vessel<br>Contractor; | Rig Environmental Aspects and Impacts Register   |  |                                      |                          | Y                         |
| PP-7 |  | Discharge of drainage<br>water (deck drainage, fire<br>water, bilge water and<br>slop water) from MODU<br>and support/supply<br>vessels; MODU<br>operations | Water quality; Plankton;<br>Nekton (fish)   | Bilge water will be treated and discharged in accordance with MARPOL 73/78 Annex I, with discharge automatically stopped if effluent exceeds 15 ppm of oil (special area requirements for Mediterranean Sea, ships of >400 gross tonnage).  | Drilling Contractor; Supply Vessel Contractor;    | Rig Environmental Aspects and Impacts Register   |  |                                      |                          | Y                         |
| PP-8 |  |   | Water quality; Plankton;<br>Nekton (fish)   | Slop water will be treated onboard the MODU in a slop treatment unit. The separated drilling fluids and slops will be sent to shore for treatment / disposal and the separated water discharged to sea providing the oil in water content does not exceed 15 ppm.   | Drilling Contractor; Supply Vessel<br>Contractor; | Rig Environmental Aspects and Impacts Register   |  |                                      |                          | Y                         |

| UID   | ESIA Section<br>References (Aspect<br>Codes) | Project Phases / Activity<br>/ Aspect   | Receptors  | Mitigation   | Responsible Party (for implementation)                      | Project Documentation<br>(environmental and social<br>management plan, standards,<br>ESMP matrix, etc)          | Operation of a<br>grievance<br>procedure/mech<br>anism | Incident reporting and investigation | Audits by the contractor | Performance<br>monitoring |
|-------|--|---|--|--|---|---|--|--------------------------------------|--------------------------|---------------------------|
| PP-9  | MAE12; MAS02                                 | Uplift and discharge of cooling water from MODU; MODU operations  | Water quality; Plankton;<br>Nekton (fish)            | Discharge of cooling water will comply with allowable limits in Decision No. 8/1/2001 (maximum temperature of wastewater discharge to sea 35 °C) and TOTAL / World Bank requirement that temperature increase shall not exceed a maximum of 3 °C, 100 m away from the discharge point  | Drilling Contractor   | Rig Environmental Aspects and Impacts Register  |  |                                      |                          | Y                         |
| PP-10 | MAE13; MAS02                                 | Discharge of ballast from<br>MODU and support /<br>supply vessels; MODU<br>operations   | Water quality; Plankton;<br>Nekton (fish)            | MODU will carry out internal ballasting for a large proportion of its operations with no discharge of ballast water to sea.  | Drilling Contractor; Supply Vessel<br>Contractor;           | Rig Environmental Aspects and Impacts Register  |  |                                      |                          | Y                         |
| PP-11 | MAE13; MAS02                                 | Discharge of ballast from<br>MODU and support /<br>supply vessels; MODU<br>operations   | Water quality; Plankton;<br>Nekton (fish); Fisheries | Any ballast water exchange will be carried out in compliance with the<br>'International Convention for the Control and Management of Ships'<br>Ballast Water and Sediments 2014' (R).  | Drilling Contractor; Supply Vessel<br>Contractor;           | Rig Environmental Aspects and Impacts Register  |  |                                      |                          | Y                         |
| PP-12 | MAE13; MAS02                                 |   | Water quality; Plankton;<br>Nekton (fish)            | Ballast water on drillship and support/supply vessels will be segregated and will not come into contact with oil and chemicals.  | Drilling Contractor; Supply Vessel<br>Contractor;           | Rig Environmental Aspects and Impacts Register  |  |                                      |                          | Υ                         |
| PP-13 | MAE11; MAS02                                 | Discharge of drainage<br>water (deck drainage, fire<br>water, bilge water and<br>slop water) from MODU<br>and support/supply<br>vessels; MODU<br>operations   | Fisheries  | All operational discharges from MODU will be in accordance with the requirements of MARPOL 73/78 (R).  | Drilling Contractor; Supply Vessel<br>Contractor;           | Rig Environmental Aspects and<br>Impacts Register; Pollution<br>Prevention and Environmental<br>Monitoring Plan |  |                                      |                          | Y                         |
| PP-14 | MAE15  | Operation of incinerator onboard MODU   | Air quality; Climate change                          | Any onboard incineration will be carried out in compliance with the requirements of MARPOL 73/78 Annex XI Chapter 3, regulation 16-Shipboard Incineration (R). There will be no incinerator onboard the MODU for well B4-1. If future exploration / appraisal wells are drilled using a MODU with onboard incinerator TEP Liban will inform the MoE for environmental clearance. | Drilling Contractor; Supply Vessel<br>Contractor;           | Waste Management Plan   |  |                                      |                          | Y                         |
| PP-15 | MAE04; MAE16                                 | Drilling of lower well sections using synthetic NADFs - ship to shore of cuttings; MODU and support / supply vessel / helicopter transfer plant operation resulting in air emissions                      | Air quality; Climate change                          | Atmospheric emissions on the MODU and support / supply vessels will be controlled in accordance with MARPOL 73/78 Annex VI (R).  | Drilling Contractor; Supply Vessel Contractor;              | Pollution Prevention and<br>Environmental Monitoring Plan;<br>Environmental Management                          |  |                                      |                          | Y                         |
| PP-16 | MAE04; MAE16                                 | Drilling of lower well sections using synthetic NADFs - ship to shore of cuttings; MODU and support / supply vessel / helicopter transfer plant operation resulting in air emissions                      | Air quality; Climate<br>change                       | Sulphur content of marine fuel oil used onboard vessels will not exceed 0.5% by mass (unless vessels have scrubbers fitted) in line with MARPOL 2020 requirements (R).   | Drilling Contractor; Supply Vessel Contractor;              | Pollution Prevention and<br>Environmental Monitoring Plan   |  |                                      |                          | Y                         |
| PP-17 | MAE04; MAE16                                 | Drilling of lower well<br>sections using synthetic<br>NADFs - ship to shore of<br>cuttings; MODU and<br>support / supply vessel /<br>helicopter transfer plant<br>operation resulting in air<br>emissions | Air quality; Climate change                          | All machinery, equipment and installations will comply with generally accepted standards in the international petroleum industry, will be of proper construction, and kept in good working order.  |   | Scope of Work; Environmental<br>Management  |  |                                      |                          | Y                         |
| PP-18 | MAE04; MAE16                                 | Drilling of lower well  | Air quality; Climate<br>change                       | Fuel efficiency measures shall be taken into account in the selection of MODU, support / supply vessels and helicopters.   | Drilling Contractor; Supply Vessel Contractor;              | Company Rules; Call for Tenders   |  |                                      |                          | Y                         |
| PP-19 | MAE04; MAE16                                 | Drilling of lower well sections using synthetic NADFs - ship to shore of cuttings; MODU and support / supply vessel / helicopter transfer plant operation resulting in air emissions                      | Air quality; Climate<br>change                       | Supply vessels transfers to the MODU will be optimised and the support vessel will drift around the MODU to minimise engine use.   | Drilling Contractor; Supply Vessel<br>Contractor;           | PSV Contract  |  |                                      |                          | Y                         |
| PP-20 | MAE04; MAE16                                 | Drilling of lower well<br>sections using synthetic<br>NADFs - ship to shore of<br>cuttings; MODU and<br>support / supply vessel /<br>helicopter transfer plant<br>operation resulting in air<br>emissions | Air quality; Climate change                          | Ozone depleting substances and all products listed in the Montreal Protocol - CFCs, HCFCs and Halons, will be prohibited except for essential use, under derogation (R).   | TEP Liban; Drilling Contractor;<br>Supply Vessel Contractor | Pollution Prevention and<br>Environmental Monitoring Plan;<br>Contractors Scopes of Work                        |  |                                      |                          | Y                         |

| UID   | ESIA Section<br>References (Aspect<br>Codes) | Project Phases / Activity<br>/ Aspect   | Receptors  | Mitigation  | Responsible Party (for implementation)   | Project Documentation<br>(environmental and social<br>management plan, standards,<br>ESMP matrix, etc) | Operation of a grievance procedure/mech anism | Incident reporting and investigation | Audits by the contractor | Performance<br>monitoring |
|-------|--|---|--|---|--|--|---|--------------------------------------|--------------------------|---------------------------|
| PP-22 | MAE17  | Well test of possible<br>future appraisal well  | Air quality; Climate change  | If flaring is the sole option available for the disposal of well test fluids, only the minimum volume of hydrocarbons required for the test will be flowed and the well test duration will be reduced to the extent practical.        | TEP Liban; Drilling Contractor;  | Drilling Program of Appraisal Well;<br>Company Rules; Scope of Work                                    |   |                                      |                          | Y                         |
| PP-23 | MAE17  | Well test of possible<br>future appraisal well  | Air quality; Climate change  | An efficient well test flare burner head equipped with an appropriate combustion enhancement system (e.g. "evergreen burners" type) wibe selected to minimise incomplete combustion, black smoke, and hydrocarbon fallout to the sea. | TEP Liban; Drilling Contractor;  | Drilling Program of Appraisal Well;<br>Company Rules; Scope of Work                                    |   |                                      |                          | Υ                         |
| PP-24 | MAE17  | Well test of possible future appraisal well   | Air quality; Climate change  | Whenever possible, the liquid phase of the separator shall be re-<br>injected into the process lines or stored in appropriate tanks, and<br>only the gaseous phase shall be burned.   | TEP Liban; Drilling Contractor;  | Drilling Program of Appraisal Well;<br>Company Rules; Scope of Work                                    |   |                                      |                          | Y                         |
| PP-25 | MAE20; MAS02                                 | Light spill from MODU;<br>MODU operations   | Seabirds; Fish;<br>Cetaceans turtles and<br>seals  | Light spill will be reduced by shielding lights and pointing lights directly at the work area (directional alignment).  | Drilling Contractor; Supply Vessel Contractor;                                 | Pollution Prevention and<br>Environmental Monitoring Plan  |   |                                      |                          | Y                         |
| PP-26 | MAE20; MAS02                                 | Light spill from MODU;<br>MODU operations   | Seabirds; Fish;<br>Cetaceans turtles and<br>seals  | Area and work lighting will be limited to the amount and intensity necessary to maintain worker safety.   | Drilling Contractor; Supply Vessel Contractor;                                 | Pollution Prevention and<br>Environmental Monitoring Plan  |   |                                      |                          | Y                         |
| PP-27 | MAE21; AE2                                   | Chemicals transfer and storage; Loss of chemical containment onboard  |  | All chemicals will be held in secure and leak-proof containers suitably labeled to indicate the nature of the substance and risk involved.  | Drilling Contractor; Supply Vessel<br>Contractor                               | Contractor's Chemical<br>Management Plan   |   |                                      |                          | Y                         |
| PP-31 | OAE01  |   | Air quality; Climate change  | Generators at the logistics base will be operated according to manufacturer's instructions to operate in most energy efficient manner.  | Logistics Base Contractor;   | Logistics Base Contract  |   |                                      |                          | Y                         |
| PP-32 | OAE01; OAS01;<br>OAS02                       |   | Air quality; Climate<br>change; Public Health<br>(Air Quality)                             | Low sulphur fuel to be used at the logistics base where practicable.  | TEP Liban; Logistics Base<br>Contractor;                                       | Industry best practice   |   |                                      |                          | Y                         |
| PP-33 | OAE02  | discharge of drainage   | Water quality  | Site drainage from the logistics base will only be permitted from non-contaminated areas.   | Logistics Base Contractor;   | Industry best practice   |   |                                      |                          | Y                         |
| PP-34 | OAE02  | water Logistics base operation - discharge of drainage water  | Water quality  | For areas at the logistics base where there is the potential for spillages, and contaminated runoff, containment will be in place.  | Logistics Base Contractor;   | Logistics Base Contract  |   |                                      |                          | Υ                         |
| PP-35 | OAE03  | Logistics base operation - noise generation   | Terrestrial ecology  | Equipment at the logistics base will be well maintained and individual mitigation measures applied if noise levels are higher than maximum allowable noise levels (where feasible).   | Logistics Base Contractor;   | Logistics Base Contract  |   |                                      |                          | Y                         |
| PP-36 | OAE04  | Logistics base operation – waste management   | None providing waste managed properly  | Waste collection and temporary storage at logistics base will be designed to minimise the risk of escape to the environment (for example by particulates, infiltration, runoff or odors).   | Logistics Base Contractor;   | Logistics Base Contract  |   |                                      |                          | Υ                         |
| PP-37 | OAE04  | Logistics base operation – waste management   | None providing waste managed properly  | Wastes will be stored in areas of the logistics base that minimise the risk of accidental loss of confinement or leaching (bunded areas). Al effluents from waste storage areas will be collected and disposed of appropriately.      | Logistics Base Contractor;   | Logistics Base Contract  |   |                                      |                          | Y                         |
| PP-38 | OAE05  |   | None providing chemicals managed properly  | The chemical storage areas at the logsitics base will be designed to avoid leak or spillage to the environment. They will have adequate ventilation and shall be protected from rainfall and direct sunlight.                         | Logistics Base Contractor;   | Chemical Management Plan;<br>Logistics Base Contract   |   |                                      |                          | Υ                         |
| PP-39 | OAS01; OAS02                                 | Logistics base operation;<br>Transport of materials to /<br>from the logistics base<br>(vessel and vehicle<br>activity) | Public Health (Air Quality)  | Compliance with Lebanese maximum emission limits (Decision 8/1/2001) at the logistics base.   | TEP Liban; Logistics Base<br>Contractor;                                       | Pollution Prevention and<br>Environmental Monitoring Plan  |   |                                      |                          | Y                         |
| PP-40 | OAS01; OAE01                                 | Logistics base operation - emissions to air   | Public Health; Air Quality   | Any transfer of dry bulk from the drilling fluids mixing plant dry bulk silos will be carried out with the use of a dust collector unit to minimise dust migration to the surrounding environment                                     | TEP Liban; Logistics Base<br>Contractor;                                       | LMP and Cementing Contractors  |   |                                      |                          | Y                         |
| PP-41 | OAS01  | Logistics base operation  | Public Health (Air borne noise)  | At present the layout of the logistics base is not finalised. During the final design of the layout equipment which has the highest source noise levels will be located as far from the closest residential properties as possible.   | TEP Liban; Logistics Base<br>Contractor;                                       | Logistics Base Contract  |   |                                      |                          | Y                         |
| PP-42 | OAS01  | Logistics base operation  | Public Health (Air borne noise)  | Noise monitoring will be carried out at the logistics base to determine if noise mitigation measures shall be applied (where feasible).   | TEP Liban; Logistics Base<br>Contractor;                                       | Logistics Base Contract  |   |                                      |                          | Y                         |
| PP-43 | OAS01; OAS02                                 | Logistics base operation;<br>Transport of materials to /<br>from the logistics base.                                    | Public Health (Air borne noise)  | Airborne noise levels from the logistics base will comply with Lebanese maximum allowable noise levels (Decision 52/1/96) at the Logistics base fenceline.  | TEP Liban; Logistics Base<br>Contractor;                                       | Logistics Base Contract  |   |                                      |                          | Y                         |
| PP-44 | AE2  | Loss of chemical containment onboard MODU   | Sediment quality /<br>composition; Water<br>quality; Benthos;<br>Plankton; Fish; Fisheries | Suitable and certified CCUs (Cargo Carrying Unit) will be used for chemicals transfer; they will be checked visually for integrity at logistics base before transfer offshore.  | Drilling Contractor; Supply Vessel<br>Contractor; Logistics Base<br>Contractor | Chemical Management Plan   |   |                                      |                          | Y                         |

| UID   | ESIA Section<br>References (Aspect<br>Codes) | Project Phases / Activity<br>/ Aspect  | Receptors   | Mitigation  | Responsible Party (for implementation)  | Project Documentation<br>(environmental and social<br>management plan, standards,<br>ESMP matrix, etc) | Operation of a<br>grievance<br>procedure/mech<br>anism | Incident reporting and investigation | Audits by the contractor | Performance<br>monitoring |
|-------|--|--|---|---|---|--|--|--------------------------------------|--------------------------|---------------------------|
| PP-45 | AE4  | drilling fluid to sea  | Sediment quality /<br>composition; Water<br>quality; Benthos;<br>Plankton; Fish; Fisheries  | BOP auto shear function will be in place in order to reduce volume o drilling fluids released from the well during accidental event.              | TEP Liban; Drilling Contractor  | Riser Analysis; Drilling Program;<br>Company Rules   |  |                                      |                          | Y                         |
| PP-46 | AE4  | drilling fluid to sea  | Sediment quality /<br>composition; Water<br>quality; Benthos;<br>Plankton; Fish; Fisheries  | Riser emergency disconnect sequence will be tested.   | TEP Liban; Drilling Contractor  | Riser Analysis; Drilling Program;<br>Company Rules   |  |                                      |                          | Y                         |
| PP-47 | AE6  |  | Air quality; Water quality;<br>Plankton; Fish; Seabirds;<br>Cetaceans, turtles &<br>seals; Coastal habitats;<br>Fisheries; Shipping;<br>Tourism;<br>Public Health; Social<br>conditions; General<br>economy / industry;<br>Infrastructure;<br>Archaeology and cultural<br>resources | Any dispersant usage will be approved in advance by the MoE.  | TEP Liban; Drilling Contractor  | Oil Spill Contingency Plan   |  |                                      |                          | Y                         |
| PP-48 | AE8  | Helicopter crash on<br>MODU deck – release of  | Water quality; Plankton   | Helicopter transportation will be restricted to daylight hours except for possible Medevac  | TEP Liban; Helicopter Contractor;   | Helicopter Contract  |  |                                      |                          | Y                         |
| PP-49 | AE9  |  | Sediment quality /<br>composition; Water<br>quality; Benthos;<br>Plankton; Fish; Fisheries  | Marine diesel transfer will start in daylight hours only.   | Drilling Contractor; Supply Vessel<br>Contractor;                                       | MGO Contract   |  |                                      |                          | Y                         |
| PP-50 | AE9  | during offshore materials  | Sediment quality /<br>composition; Water<br>quality; Benthos;<br>Plankton; Fish; Fisheries  | Transfer hoses will be self floating or equipped with floating device to limit the risk of sinking and potential rupture with vessel's propeller. | Drilling Contractor; Supply Vessel Contractor;  | MGO Contract   |  |                                      |                          | Y                         |
| PP-51 | AE9; AE12                                    | during offshore materials<br>transfer to MODU –<br>release of drilling fluids or<br>marine diesel to sea   | Water quality; Plankton;<br>Nekton (fish); Tourism -<br>logistics base located<br>close to yachting club;<br>Cetaceans turtles and<br>seals; Sediment quality /<br>composition; Benthos;  | Vessels will have a Shipboard Oil Pollution Emergency Plan (SOPEP) in line with MARPOL requirements.  | Drilling Contractor; Supply Vessel<br>Contractor  | SOPEP (Shipboard Oil Pollution<br>Emergency Plan); Scope of Work                                       |  |                                      |                          | Y                         |
|       | AE10   | emissions to air; Transport of materials to / from the logistics base (vessel and vehicle activity); Helicopter crash on MODU deck – release of aviation fuel to sea; Loss of rig stability (rig capsize) with release of fuel inventory |   | Planned, preventive maintenance as per manufacturer's recommendation will be mandatory for all equipment.   | TEP Liban; Drilling Contractor;<br>Logistics Base Contractor;<br>Helicopter Contractor; | Rig Maintenance Manual; Scope<br>of Work   |  |                                      |                          | Y                         |
| PP-53 |  | during materials transfer  | Water quality; Tourism -<br>logistics base located<br>close to yachting club  | Oil spill kits and chemical spill kits will be available on the logistics base and clearly marked.  | Logistics Base Contractor   | Logistics Base Contract  |  |                                      |                          | Y                         |
| PP-54 | AE2  | containment onboard  | Sediment quality /<br>composition; Water<br>quality; Benthos;<br>Plankton; Fish; Fisheries  | Spill kits will be available onboard MODU and supply vessels; personnel will be trained in use of spill kits.                                     | Drilling Contractor; Supply Vessel<br>Contractor; Logistics Base<br>Contractor          | Chemical Management Plan   |  |                                      |                          | Y                         |

| UID   | ESIA Section<br>References (Aspect<br>Codes) | Project Phases / Activity<br>/ Aspect  | Receptors  | Mitigation  | Responsible Party (for implementation)  | Project Documentation<br>(environmental and social<br>management plan, standards,<br>ESMP matrix, etc) | Operation of a<br>grievance<br>procedure/mech<br>anism | Incident reporting and investigation | Audits by the contractor | Performance<br>monitoring |
|-------|--|--|--|---|---|--|--|--------------------------------------|--------------------------|---------------------------|
| PP-55 |  | drilling fluid to sea;<br>Shallow gas blowout,<br>release of gas into water<br>column during riserless<br>operations; Shallow gas<br>blowout, release of gas | resources; Sensitive<br>marine habitats<br>(offshore); Coastal                                 | An Oil Spill Contingency Plan (OSCP), Blowout Contingency Plan (BOCP), and Emergency Response Plan (ERP) will be developed and implemented for project. The OSCP will align with the 'National Oil Spill Contingency Plan (NOSCP) in Lebanese Waters' (2017) and will be communicated to the LPA. In the event that a subsequent exploration / appraisal well is drilled in the Block 4 priority area, in a location closer to shore than well B4-1, TEP Liban will carry out further spill modelling and submit the results in a Notification of Change Report to the authorities. | TEP Liban; Drilling Contractor;<br>Supply Vessel Contractor;<br>Helicopter Contractor | OSCP, BOCP, ERP as a part of<br>Company Management System  |  |                                      |                          | Y                         |
| PP-57 | MAE08  | Discharge of sanitary<br>waste from MODU and<br>support / supply vessels   | Nekton (fish)  | Both the MODU and support / supply vessels will have an<br>International Sewage Pollution Prevention Certificate in line with<br>MARPOL 73/78 Annex IV.   | Drilling Contractor; Supply Vessel Contractor;  | Pollution Prevention and<br>Monitoring Plan  |  |                                      |                          | Y                         |
| PP-58 |  | Discharge of drainage water (deck drainage, fire water, bilge water and slop water) from MODU and support/supply vessels.                                    | Water quality; Plankton;<br>Nekton (fish)  | The MODU and support/supply vessels (more than 400 gross tonnage) will have an International Oil Pollution Prevention Certificate, will maintain an Oil Record Book, and will have an approved Shipboard Oil Pollution Emergency Plan (SOPEP) in accordance with MARPOL 73/78 Annex I (R).  | Drilling Contractor; Supply Vessel<br>Contractor;                                     | Pollution Prevention and<br>Environmental Monitoring Plan  |  |                                      |                          | Y                         |
| PP-59 | MAE13  | Discharge of ballast from<br>MODU and support /<br>supply vessels  | Water quality; Plankton;<br>Nekton (fish)  | The MODU and support / supply vessels will have an onboard Ballast Water Management Plan, keep a record of all ballast water exchange operations in a Ballast Water Record Book, and have an International Ballast Water Management Certificate.  | Drilling Contractor; Supply Vessel<br>Contractor;                                     | Pollution Prevention and<br>Environmental Monitoring Plan  |  |                                      |                          | Y                         |
| PP-61 | MAE16  | MODU and support /<br>supply vessel / helicopter<br>transfer / plant operation<br>resulting in air emissions   | Air quality; Climate change  | The MODU and support/supply vessels (more than 400 gross tonnage) will obtain an International Air Pollution Prevention Certificate in accordance with MARPOL 73/78 Annex VI  | Drilling Contractor; Supply Vessel<br>Contractor;                                     | Pollution Prevention and<br>Environmental Monitoring Plan  |  |                                      |                          | Y                         |
| PP-62 | OAS02  | Transport of materials to /<br>from the logistics base<br>(vessel and vehicle<br>activity)   | Public Health  | Compliance with the regulatory requirements, including, but not limited to requirements of PAR, OPRL, EPA and MoE decision No. 52/1/1996, National maximum allowable noise levels and the permissible noise exposure standards.   | Logistics Base Contractor;  | Logistics Base Contract  |  |                                      |                          | Y                         |
| RA-1  | AE3  | Radioactive source lost in   | Sediment quality / composition   | Logging operations carried out by a certified team.   | Drilling and Acquisition Contractor   | Scope of Work; Company Rules;<br>Contractor Standards  |  |                                      |                          | Υ                         |
| RA-2  | AE3  | Radioactive source lost in hole  |  | Best efforts will be made to retrieve the source – fishing equipment will be available on site. Failing this, section where radioactive source lost will be cemented up.  | Drilling and Acquisition Contractor   | Scope of Work; Company Rules;<br>Contractor Standards  |  |                                      |                          | Y                         |
| SA-1  | MAS03  | Support activities<br>(Movement of support<br>vessels)   | Infrastructure (Beirut<br>Port); Shipping; Fisheries;<br>Tourism, (recreational<br>activities) | All vessels fitted with navigational aids, communication systems and follow specified shipping routes and speed restrictions.   | Supply Vessel Contractor;   | As per Port Authorities  |  |                                      |                          | Y                         |
| SA-2  | MAS03  | vessels)   | Infrastructure (Beirut<br>Port); Shipping; Fisheries;<br>Tourism, (recreational<br>activities) | Follow communication from Port Authorities, who are responsible for Port operations up to the quay line.  | Supply Vessel Contractor;   | As per Port Authorities  |  |                                      |                          | Y                         |
| SA-3  | MAS03  | Support activities<br>(Movement of support<br>vessels)   | Infrastructure (Beirut<br>Port); Shipping; Fisheries;<br>Tourism, (recreational<br>activities) | Supply vessels will have designated mooring jetty at the onshore logistics base reducing interference with other non-project vessels using the Port.  | Supply Vessel Contractor;   | Logistics Base Contract  |  |                                      |                          | Y                         |
| SA-4  | MAS03  | Support activities<br>(Movement of support<br>vessels)   | Infrastructure (Beirut<br>Port); Shipping; Fisheries;<br>Tourism, (recreational<br>activities) | The supply vessel movements and the likely duration of their activities will be communicated to the port maritime authorities.  | Supply Vessel Contractor;   | Company Rules; Scope of Work   |  |                                      |                          |                           |
| SCM-1 | OAS01  | Logistics base operation   | General economy<br>(employment and service<br>provision)                                       | Contractors will be encouraged to consider the use of local labour and to advertise any Project related vacancies locally.  | TEP Liban; Logistics Base<br>Contractor   | Social Management Plan   |  |                                      |                          | Υ                         |

| UID    | ESIA Section<br>References (Aspect<br>Codes) | Project Phases / Activity<br>/ Aspect   | Receptors  | Mitigation  | Responsible Party (for implementation)        | Project Documentation<br>(environmental and social<br>management plan, standards,<br>ESMP matrix, etc) | Operation of a grievance procedure/mech anism | Incident reporting and investigation | Audits by the contractor | Performance<br>monitoring |
|--------|--|---|--|---|---|--|---|--------------------------------------|--------------------------|---------------------------|
| SCM-2  | OAS01  | Logistics base operation  | General economy<br>(employment and service<br>provision)   | Preferential treatment will be given to the procurement of Lebanese originating goods and services; PAR Article 157 right holder shall ensure that operator gives preferential treatment to the procurement of Lebanese originating goods and services when such goods and services are internationally competitive with respect to quality, availability, price and performance.   | TEP Liban; Logistics Base<br>Contractor       | Social Management Plan   |   |                                      |                          | Y                         |
| SCM-3  | OAS01  | Logistics base operation  | Education and Training   | PAR Article 155 the right holder and contractor shall give priority to training of Lebanese in order to facilitate the employment of Lebanese at all level or right holders/contractor's organisation.  | TEP Liban; Logistics Base<br>Contractor       | Social Management Plan   |   |                                      |                          | Y                         |
| SOC-1  | OAE03; MAS01;<br>OAS01; OAS02                | Transport of materials to /<br>from the logistics base<br>(vessel and vehicle<br>activity)  | Fisheries; Public Health;<br>Social Conditions (Road<br>safety and congestion);<br>Infrastructure (Road<br>network)  | Project will implement a grievance mechanism; the grievance mechanism will be clearly communicated to relevant stakeholders.  | TEP Liban; Logistics Base<br>Contractor       | Social Management Plan   | Y   |                                      |                          | Y                         |
| SOC-2  | OAE06; OAS03                                 | Helicopter transfers to<br>Beirut International<br>Airport; Support activities<br>(Helicopter transfer)                           | Sensitive coastal<br>habitats; Terrestrial<br>ecology; Seabirds  | Avoidance of low flight directly over internationally recognised and proposed conservation areas and over local communities and popular beaches, in the vicinity of the airport, if safe and practical to do so (subject to Lebanese Air Force approval).   | Helicopter Contractor; RHIA                   | Social Management Plan;<br>Helicopter Contract   |   |                                      |                          | Y                         |
| SOC-3  | MAS01; MAS02                                 | MODU mobilisation,<br>installation, plug and<br>abandonment and<br>demobilisation; MODU<br>operations                             | Shipping   | Adherence to existing shipping corridors with known buffer zones and standard operating procedures as stipulated in in UNCLOS.  | TEP Liban; Port Authorities                   | Social Management Plan; As per<br>Port Authorities   |   |                                      |                          | <b>Y</b>                  |
| SOC-4  | MAS01; MAS02                                 | MODU mobilisation,<br>installation, plug and<br>abandonment and<br>demobilisation; MODU<br>operations                             | Shipping   | Ensure sea users are aware of drilling programme activities and presence of safety zone during mobilisation and demobilisation through a Notice to Mariners (The schedule of activities will be communicated to the Ministry of Public Works and Transport and the Lebanese Navy via the Lebanese Armed Forces (LAF) that issues information and instructions to mariners pertaining to shipping hazards and safety zones). | TEP Liban;                                    | Stakeholder Engagement Plan; As per Port Authorities   |   |                                      |                          | Y<br>                     |
| SOC-5  | MAS01  | MODU mobilisation,<br>installation, plug and<br>abandonment and<br>demobilisation   | Fisheries  | Operators will submit Safety Zone Authorisation to the authorities for approval prior to drilling activities.   | TEP Liban;                                    | Social Management Plan;<br>Stakeholder Engagement Plan   |   |                                      |                          | Y                         |
| SOC-6  | MAS01  | MODU mobilisation,<br>installation, plug and<br>abandonment and<br>demobilisation   | Fisheries  | Operators shall inform fishermen through the fisheries associations about well plan approvals to ensure well location avoidance.  Discussions will be initiated approximately 1 month before planned commencement of drilling in case extensive fishing area is impacted.   | TEP Liban                                     | Stakeholder Engagement Plan  |   |                                      |                          | Y                         |
| SOC-8  | OAS01  | Logistics base operation  | Infrastructure (Port of Beirut)  | Logistics base contractor will be required to comply with the Port's operational limits and Operator's HSE requirements.  | TEP Liban; Logistics Base<br>Contractor;      | Social Management Plan;<br>Logistics Base Contractor<br>Contract with Port of Beirut                   |   |                                      |                          | Y                         |
| SOC-9  | OAE06; OAS03                                 | Helicopter transfers to<br>Beirut International<br>Airport; Support activities<br>(Helicopter transfer)                           | Sensitive coastal<br>habitats; Terrestrial<br>ecology; Seabirds;<br>Infrastructure (air traffic)   | A flight plan will be developed and agreed with the Lebanese aviation authorities.  | TEP Liban; Logistics Base<br>Contractor; RHIA | Social Management Plan;<br>Helicopter Contract   |   |                                      |                          | Y                         |
| SOC-10 | OAS03  | Support activities<br>(Helicopter transfer)   | Public Health; Tourism;<br>Infrastructure (air traffic)  | Helicopter transfers will be planned for daylight hours to minimise noise disturbance to local communities at night.  | TEP Liban; Logistics Base<br>Contractor;      | Helicopter Contract; Company<br>Rules  |   |                                      |                          | Y                         |
| SOC-11 | AE6  | Blowout – release of condensate and gas   | Air quality; Water quality;<br>Plankton; Fish; Seabirds;<br>Cetaceans, turtles &<br>seals; Coastal habitats;<br>Fisheries; Shipping;<br>Tourism;<br>Public Health; Social<br>conditions; General<br>economy / industry;<br>Infrastructure;<br>Archaeology and cultural | Sensitive coastal areas will be protected as a priority in line with coastal sensitivity mapping in TEP Liban's OSCP and mapping in the NOSCP.  | TEP Liban; Drilling Contractor;               | Social Management Plan   |   |                                      |                          | Y                         |
| SOC-12 |  | Collision of third party<br>ship with MODU – release<br>of third party fuel<br>inventory, possible<br>damage to MODU and<br>riser | Water quality; Plankton;<br>Fish; Seabirds;<br>Cetaceans, turtles &<br>seals; Sensitive marine<br>habitats (offshore);<br>Fisheries; Shipping  | A Notice to mariners (NAVAID / NAVAREA system) will be issued.  | TEP Liban; Supply Vessel<br>Contractor;       | PSV Contract; As per Port<br>Authorities   |   |                                      |                          | Y                         |
| SOC-13 | OAS02  | Transport of materials to / from the logistics base (vessel and vehicle   | Infrastructure (Road network)  | Contractors are responsible for protecting infrastructure and reinstating damages if caused by their activities.  | TEP Liban; Logistics Base<br>Contractor;      | Social Management Plan;<br>Logistics Base Contractor<br>Contract with Port of Beirut                   |   |                                      |                          | Y                         |
| SOC-14 |  | activity) Public health and safety (people working in immediate vicinity of the MODU).  | Shipping; Fisheries;<br>Tourism  | One support vessel will be permanently at the drill site providing security and safety duties, alerting other non-project sea users abou 500 m safety zone.   | PSV Contractor                                | Supply Vessel Contract   |   |                                      |                          | Y                         |

| UID    | ESIA Section<br>References (Aspect<br>Codes) | Project Phases / Activity<br>/ Aspect   | Receptors  | Mitigation  | Responsible Party (for implementation)    | Project Documentation<br>(environmental and social<br>management plan, standards,<br>ESMP matrix, etc) | Operation of a<br>grievance<br>procedure/mech<br>anism | Incident reporting and investigation | Audits by the contractor | Performance<br>monitoring |
|--------|--|---|--|---|---|--|--|--------------------------------------|--------------------------|---------------------------|
| SOC-15 | MAS01  | MODU mobilisation,<br>installation, plug and<br>abandonment and<br>demobilisation | Shipping   | Vessels and crafts used for or involved in Petroleum Activities shall comply with applicable international and Lebanese laws and regulations regarding Petroleum Activities and navigation; vessels and crafts shall abide by instructions given by competent Lebanese authorities and by competent Lebanese naval vessels, patrol boats or crafts. | TEP Liban;                                | Company Rules; Scope of Work   |  |                                      |                          | Y                         |
| SOC-16 | OAS01  | Logistics base operation  | Employment   | TEP Liban will make it a contractual requirement that its contractors and subcontractors comply with all applicable labour laws.  | TEP Liban;                                | Company Rules; Scope of Work   | Υ  |                                      |                          | Υ                         |
| SOC-17 |  | Logistics base operation  | Public Health  | Logistics Base Operator will respect traffic movement restrictions at the port.   | Logistics Base Contractor;                | Company Rules; Scope of Work   |  |                                      |                          | Υ                         |
| SOC-18 | OAS01  | Logistics base operation  | Tourism  | No expansion of the port footprint will be required due to presence o project logistics base.   | fTEP Liban; Logistics Base<br>Contractor; | HSE Plan   |  |                                      |                          |                           |
| TR-1   |  | Generation of solid waste<br>on MODU and support /<br>supply vessels              | None providing waste managed properly  | Waste management awareness will be raised among personnel through site inductions, toolbox talks, site HSE committee meetings (if applicable), performance reports and general waste management lawareness campaigns (e.g. posters, brochures).   | Drilling Contractor; Supply Vessel        | Logistics Base Bridging Document   |  |                                      |                          | Y                         |
| TR-2   |  | release of gas into water column during riserless operations                      | Air quality; Water quality;<br>Sediment quality /<br>composition; Benthos;<br>Plankton; Fish; Fisheries;<br>Shipping   | Shallow gas procedures will be known and practised, and shallow gas drills will be conducted.   | TEP Liban; Drilling Contractor            | Riser Analysis; Company Rules  |  |                                      |                          | Y                         |
| TR-3   | AE6  | condensate and gas  | Air quality; Water quality;<br>Plankton; Fish; Seabirds;<br>Cetaceans, turtles &<br>seals; Coastal habitats;<br>Fisheries; Shipping;<br>Tourism;<br>Public Health; Social<br>conditions; General<br>economy / industry;<br>Infrastructure;<br>Archaeology and cultural<br>resources                                | Critical personnel will be trained and certified in well control.   | TEP Liban; Drilling Contractor            | Contractor Training Procedure;<br>Rig Contract   |  |                                      |                          | Y                         |
| TR-4   | AE6  | condensate and gas  | Air quality; Water quality;<br>Plankton; Fish; Seabirds;<br>Cetaceans, turtles &<br>seals; Coastal habitats;<br>Fisheries; Shipping;<br>Tourism;<br>Public Health; Social<br>conditions; General<br>economy / industry;<br>Infrastructure;<br>Archaeology and cultural<br>resources                                | Frequent kick drills will be conducted.   | TEP Liban; Drilling Contractor            | Drilling Program; Company Rules  |  |                                      |                          | Y                         |
|        |  | capsize) with release of<br>fuel inventory  | Water quality; Plankton; Fish; Seabirds; Cetaceans, turtles & seals; Sensitive marine habitats (offshore); Coastal habitats; Fisheries; Shipping; Tourism; Public health; Social conditions; General economy / industry; Infrastructure; Archaeological and cultural resources                                     | Emergency disconnect sequence will be in place that is tested and exercised.  | TEP Liban; Drilling Contractor            | Drilling Program; Company Rules  |  |                                      |                          | Y                         |
| TR-6   | AE11   | loss of well integrity and<br>release of hydrocarbons<br>to sea                   | Water quality; Plankton;<br>Fish; Seabirds;<br>Cetaceans, turtles &<br>seals; Sensitive marine<br>habitats (offshore);<br>Coastal habitats;<br>Fisheries; Shipping;<br>Tourism; Public health;<br>Social conditions;<br>General economy /<br>industry; Infrastructure;<br>Archaeological and<br>cultural resources | Rig crew will be ready to disconnect in case of emergency.  | TEP Liban; Drilling Contractor            | Company Rules  |  |                                      |                          | Y                         |

| UID   | ESIA Section<br>References (Aspect<br>Codes) | Project Phases / Activity<br>/ Aspect   | Receptors   | Mitigation   | Responsible Party (for implementation)   | Project Documentation<br>(environmental and social<br>management plan, standards,<br>ESMP matrix, etc) | Operation of a grievance procedure/mech anism | Incident reporting and investigation | Audits by the contractor | Performance<br>monitoring |
|-------|--|---|---|--|--|--|---|--------------------------------------|--------------------------|---------------------------|
| TR-7  |  | Loss of containment<br>during materials transfer<br>to supply vessels at<br>logistics base quay side –<br>release of drilling fluids /<br>diesel to sea | Water quality; Tourism -<br>logistics base located<br>close to yachting club  | Relevant key personnel will be trained in spill response.  | Logistics Base Contractor;   | Logistics Base Bridging Document   |   |                                      |                          | Y                         |
| TR-8  | AE4  | Riser rupture, release of<br>drilling fluid to sea  | Sediment quality /<br>composition; Water<br>quality; Benthos;<br>Plankton; Fish; Fisheries  | Loss of MODU position trials will be carried out along with endurance tests  | TEP Liban; Drilling Contractor   | Riser Analysis; DP Trials  |   |                                      |                          | Y                         |
| WM-1  |  | discharge of cuttings and   | Seabed quality / composition; Benthos; Water quality; Plankton; Nekton (fish); Cetaceans, turtles and seals; Sensitive seabed habitats                | Drilling fluids and cuttings from the lower hole sections will be returned to the rig and separated using the onboard solids control equipment (shale shakers and centrifuges). Separated drilling fluids will be reused and the cuttings discharged to sea. If discharge of HPWBDF cuttings (Option 2) is selected for a future well in Block 4, cuttings dispersion modelling that is specific to the new well location will be conducted and the MoE informed of results. | TEP Liban; Drilling Fluids<br>Contractor;                                      | Company Rules; Scope of Work   |   |                                      |                          | Y                         |
| WM-2  | MAE03; MAS02                                 | discharge of cuttings and   | Seabed quality /<br>composition; Benthos;<br>Water quality; Plankton;<br>Nekton (fish); Cetaceans,<br>turtles and seals;<br>Sensitive seabed habitats | Cuttings discharge chute will be approximately 10 m below the sea surface to aid good dispersion of the solids.  | TEP Liban; Drilling Fluids<br>Contractor;                                      | Company Rules; Scope of Work   |   |                                      |                          | Y                         |
| WM-3  | MAE04  | <u> </u>  | Air quality; Climate change   | Separated drilling fluids will be reused. Residual drilling fluids that no longer fulfil the product specification will be managed by the drilling well services contractor.   | TEP Liban; Drilling Fluids<br>Contractor;                                      | Company Rules; Scope of Work   |   |                                      |                          | Y                         |
| WM-4  | MAE04  | Drilling of lower well<br>sections using synthetic<br>NADFs - ship to shore of<br>cuttings  | Air quality; Climate change   | Cuttings skips will be certified.  | TEP Liban; Drilling Fluids<br>Contractor;                                      | Waste Management Plan, Scope of Work   |   |                                      |                          | Y                         |
| WM-5  | MAE04  | Drilling of lower well<br>sections using synthetic<br>NADFs - ship to shore of<br>cuttings  | Air quality; Climate change   | Onward export of cuttings to neighbour country for treatment and disposal will be compliant with the requirements of the Basel convention (R).   | TEP Liban; Drilling Fluids<br>Contractor;                                      | Waste Management Plan, Scope of Work   |   |                                      |                          | Y                         |
| WM-6  | MAE08; MAS02                                 | Discharge of sanitary<br>waste from MODU and<br>support / supply vessels;<br>MODU operations  | Water quality; Plankton;<br>Nekton (fish)   | Sanitary waste will be managed in accordance with MARPOL 73/78 Annex IV. Grey water will be discharged to sea (without treatment) as long as no floating matter or sheen is observable. Black water will be treated in accordance with MARPOL 73/78 Annex IV prior to discharge.   |  | Pollution Prevention &<br>Environmental Monitoring Plan  |   |                                      |                          | Y                         |
| WM-7  | MAE09  | Discharge of food waste from MODU and support / supply vessels (in the case of B4-1 well no discharge)  | Water quality; Plankton;<br>Nekton (fish)   | Discharge of any food waste from the MODU and support/supply vessels will only be carried out more than 12 nm from the nearest land and all food waste will be ground up in order to pass through a 25 mm mesh before discharge, in line with MARPOL 73/78 Annex V (Mediterranean Sea 'special area' requirement).   | Drilling Contractor; Supply Vessel Contractor;                                 | Waste Management Plan  |   |                                      |                          | Y                         |
| WM-8  | MAE09  | •   | Water quality; Plankton;<br>Nekton (fish)   | Any discharges of food waste into the sea will be recorded in the Garbage Record Book of the MODU (MARPOL Annex V).  | Drilling Contractor; Supply Vessel Contractor;                                 | Waste Management Plan  |   |                                      |                          | Y                         |
| WM-9  | MAE14  | Generation of solid waste<br>on MODU and support /<br>supply vessels  | None providing waste managed properly   | All non-hazardous and hazardous solid waste generated by the Block 4 exploration drilling programme will be transported to shore for recycling/treatment/disposal in accordance with MARPOL 73/78 Annex V or incinerated onboard the MODU (with the exception of water-based drill cuttings and drill fluids).   | Drilling Contractor; Supply Vessel<br>Contractor                               | Waste Management Plan  |   |                                      |                          | Y                         |
| WM-10 | MAE14  | supply vessels  | managed properly  | Waste will be segregated at source on site and coded according to the appropriate waste coding.  | Drilling Contractor; Supply Vessel<br>Contractor; Logistics Base<br>Contractor | Waste Management Plan  |   |                                      |                          | Y                         |
| WM-11 |  | Generation of solid waste on MODU and support / supply vessels  | managed properly  | Waste receptacles will be designed to prevent release of wind born waste.  | Drilling Contractor; Supply Vessel<br>Contractor; Logistics Base<br>Contractor | Waste Management Plan; Scope of Work   |   |                                      |                          | Y                         |
| WM-12 | MAE14  | Generation of solid waste on MODU and support / supply vessels  | Mone providing waste managed properly   | For hazardous waste, containers will be chemically resistant to the contained product and may be sealed to reduce risks.   | Drilling Contractor; Supply Vessel Contractor;                                 | Waste Management Plan  |   |                                      |                          | Y                         |
| WM-13 | MAE14  | Generation of solid waste on MODU and support / supply vessels  | None providing waste managed properly   | Hazardous waste will be transported, stored and treated/disposed of in line with applicable national regulations in force (including reporting requirements, etc)  | Contractor; Supply Vessel  | Waste Management Plan; HSE<br>Plan   |   |                                      |                          | Υ                         |
| WM-14 | MAE14  | Generation of solid waste on MODU and support / supply vessels  | None providing waste managed properly   | Waste transfer notes will provide an auditable trail of the waste management process.  | Drilling Contractor; Supply Vessel<br>Contractor; Logistics Base<br>Contractor | Waste Management Plan  |   |                                      |                          | Υ                         |
| WM-15 | MAE14  | Generation of solid waste on MODU and support / supply vessels  | None providing waste managed properly   | A Waste Management Plan will be developed by TEP Liban and implemented by its contractors.   | TEP Liban; Drilling Contractor;<br>Supply Vessel Contractor                    | Waste Management Plan  |   |                                      |                          | Y                         |

| UID   | ESIA Section<br>References (Aspect<br>Codes) | Project Phases / Activity<br>/ Aspect   | Receptors                                 | Mitigation  | Responsible Party (for implementation)                        | Project Documentation<br>(environmental and social<br>management plan, standards,<br>ESMP matrix, etc) | Operation of a<br>grievance<br>procedure/mech<br>anism | Incident reporting and investigation | Audits by the contractor | Performance<br>monitoring |
|-------|--|---|---|---|---|--|--|--------------------------------------|--------------------------|---------------------------|
| WM-16 | OAE04  | Logistics base operation – waste management   | None providing waste managed properly     | The compatibility of waste streams will be considered when segregating and storing wastes.  | Logistics Base Contractor                                     | Logistics Base Bridging Document   |  |                                      |                          | Υ                         |
| WM-17 | OAE04  | Logistics base operation – waste management   | None providing waste managed properly     | The logistics base contractor and waste management contractors will ensure the final destination of the waste is guaranteed and complies with both regulatory requirements and Total contractual commitments and that licence to operate is in place (R). | Logistics Base Contractor and<br>Waste Management Contractors | Logistics Base Bridging Document   |  |                                      |                          | Υ                         |
| WM-18 |  | Discharge of drainage<br>water (deck drainage, fire<br>water, bilge water and<br>slop water) from MODU<br>and support/supply<br>vessels | Water quality; Plankton;<br>Nekton (fish) | Oily waste and sludge from separation processes will be transported to shore for treatment and disposal.  | Drilling Contractor; Supply Vessel<br>Contractor;             | Waste Management Plan  |  |                                      |                          | Y                         |
| WM-19 |  | Logistics base operation –  | None providing waste managed properly     | Sorting of solid waste will be compliant with applicable national regulations in force.   | Drilling Contractor; Logistics Base Contractor;               | Waste Management Plan  |  |                                      |                          | Y                         |
| PP-63 | MAE10  | Desalination unit discharges from MODU  | Water quality; Plankton;<br>Nekton (fish) | Anti-scaling chemical will be an environmentally sound all-organic product based on biodegradable compounds.  | Drilling Contractor;  | Scope of Work; Contracts;<br>Chemicals Management Plan;<br>Company Rules                               |  |                                      |                          | Υ                         |
| PP-64 | MAE12  | Uplift and discharge of cooling water from MODU   | Nekton (fish)                             | No discharge of antifouling chemicals in cooling water, a marine growth prevention system (MGPS) will be used.  | Drilling Contractor;  | Scope of Work; Contracts;<br>Chemicals Management Plan;<br>Company Rules                               |  |                                      |                          | Υ                         |
| PL-6  | OAS01  | Logistics base operation –<br>water management  | Infrastructure                            | A surge tank will be installed at the Logistics Base; surge tank will be filled with fresh water during off-peak community demand in order to supply project requirements specifically with regard to mudplant activity.                                  | Logistics Base Contractor;                                    | Logistics Base Contract  |  |                                      |                          | Y                         |

#### **Total Exploration and Production Liban Sal**

## Block 4 (Lebanon) offshore exploration drilling EIA

Appendix 8.2 ESMP matrix

80754









[This page has intentionally been left blank.]

|       | ESIA  |  |  |   |   | Project Documentation  |  |  |   |
|-------|---|--|--|---|---|--|--|--|---|
| UID   | Section<br>Reference<br>s (Aspect<br>Codes) | Project Phases / Activity /<br>Aspect  | Receptors  | Mitigation  | Responsible Party (for implementation)  | (environmental and social<br>management plan,<br>standards, ESMP matrix,<br>etc) | Performance Indicator/s  | Monitoring Frequency   | Impact/s to be Managed  |
| DC-1  | MAE01;<br>MAS01;<br>MAS02                   | abandonment and demobilisation; MODU operations  | Seabed quality /<br>composition; Benthos;<br>Sensitive seabed habitats;<br>Water quality, air quality,<br>UW noise; Archaeological<br>and cultural resources | A plugging and abandonment programme will be submitted to respective authorities as part of the Advanced Drilling Plan (ADP) before drilling begins.  | TEP Liban;  | Advanced Drilling Plan   | Developed and approved program issued to relevant authorities.   |  | Physical disturbance of sediments, benthic communities and sensitive seabed habitats from anchoring and removal of the blowout preventer (BOP) and cement plugging operations   |
| MR-1  | MAE01;<br>MAS01;<br>MAS02;<br>AE1           | abandonment and<br>demobilisation; Drilling of<br>riserless top hole sections -<br>discharge of cuttings and | Seabed quality / composition; Benthos; Sensitive seabed habitats; Water quality; air quality, UW noise; Archaeological and cultural resources                | ROV survey will be conducted after drilling operations are complete to provide status of the seafloor condition around the wellsite.  | TEP Liban   | Advanced Drilling Plan   | Specified and provided for in relevant management plan; site verification zero noncompliance   |  | Physical disturbance of seabed sediments and benthos from dropped object; Physical disturbance of sediments, benthic communities and sensitive seabed habitats from anchoring and removal of the blowout preventer (BOP) and cement plugging operations   |
| PE-1  | MAE17                                       | Well test of possible future appraisal well  | Air quality; Climate change  | A permit will be obtained from the Ministry of Energy and Water for flaring for technical purposes during well test (R) and TEP Liban will inform the MoE for environmental clearance.  Flaring for safety / emergency reasons reported to MoE (no permit required) | TEP Liban   | Advanced Drilling Plan   | Specified and provided for in relevant management plan/s; site verification zero noncompliance. Permit for technical flaring and communication with MoE. | ·  | Reduction in air quality; GHG emissions contribute to climate change  |
| PP-1  | MAE02;<br>MAS02                             | cuttings and WBDFs;  | Seabed quality /<br>composition; Benthos;<br>Sensitive seabed habitats;<br>Nekton (fish)   | Seawater used for drilling the 36" well section.  | TEP Liban; Drilling<br>Fluids Supervisor  | Advanced Drilling Plan;<br>Drilling Program                                      | Quantity of seawater used for drilling operations.   |  | Burial or smothering of benthic communities; Oxygen depletion in sediments; Changes to sediment structure and quality; Changes to water quality; Potential for toxicity or bioaccumulation effects; Potential for indirect effects on fish; Potential for direct and indirect effects on sensitive seabed habitat |
| SA-1  | MAS03                                       | vessels)   | Infrastructure (Beirut Port);<br>Shipping; Fisheries;<br>Tourism, (recreational<br>activities)   | All vessels fitted with navigational aids, communication systems and follow specified shipping routes and speed restrictions.   |   | As per Port Authorities  | Specified and provided for in<br>relevant management plan/s;<br>site verification zero<br>noncompliance  |  | Potential to interfere with other sea users passing through Beirut Port and within the transit route to MODU; Increased vessel transfer through Beirut Port area increases risk of vessel collision   |
| SA-2  | MAS03                                       | vessels)   | Infrastructure (Beirut Port);<br>Shipping; Fisheries;<br>Tourism, (recreational<br>activities)   | Follow communication from Port Authorities, who are responsible for Port operations up to the quay line.  | Supply Vessel<br>Contractor;  | As per Port Authorities  | Zero complaints /<br>nonconformance with Port<br>Authority instructions.   |  | Potential to interfere with other sea users passing through Beirut Port and within the transit route to MODU; Increased vessel transfer through Beirut Port area increases risk of vessel collision   |
| HSS-4 | AE1   | Dropped Object from<br>MODU (lifting)  | Sediment quality/<br>composition; Benthos  | Lifting equipment and cranes will be certified and be subject to a preventative maintenance programme.  | TEP Liban; Drilling<br>Contractor   | Bridging Document; Scope of<br>Work  |  | Audit at start start of the operations and at each change of lifting equipment or crane.                       | Physical disturbance of seabed sediments and benthos from dropped object  |
| HSS-5 | AE1   | Dropped Object from<br>MODU (lifting)  | Sediment quality/<br>composition; Benthos  | Crane operators will be certified.  | TEP Liban; Drilling<br>Contractor   | Bridging Document; Scope of<br>Work  | All operators with certified training  | Audit at start of the operations and at each change of personnel.  | Physical disturbance of seabed sediments and benthos from dropped object  |
| HSS-6 | AE1   | Dropped Object from<br>MODU (lifting)  | Sediment quality/<br>composition; Benthos  | Lifting will be carried out in accordance with HSE bridging document agreed between Total E&P Liban and the drilling contractor.  | TEP Liban; Drilling<br>Contractor   | Bridging Document; Scope of<br>Work  | Approved bridging document; site verification zero noncompliance   | Site verification during all lifting operations.   | Physical disturbance of seabed sediments and benthos from dropped object  |
| PP-44 | AE2   | MODU   | Benthos; Plankton; Fish;   | be used for chemicals transfer; they will be checked visually for integrity at logistics base before transfer   | Drilling Contractor;<br>Supply Vessel<br>Contractor; Logistics<br>Base Contractor | Chemical Management Plan   | Specified and provided for in relevant management plan/s; site verification zero noncompliance   | Initial check prior to mobilisation. Prior to each chemical delivery.  | Reduction in water quality and sediment quality; Potential indirect effects on benthos, plankton, fish and fisheries  |
| PP-54 | AE2   | MODU   | Sediment quality /<br>composition; Water quality;<br>Benthos; Plankton; Fish;<br>Fisheries   | vessels; personnel will be trained in use of spill kits.  | Drilling Contractor;<br>Supply Vessel<br>Contractor; Logistics<br>Base Contractor | Chemical Management Plan   | Specified and provided for in<br>relevant management plan/s;<br>site verification zero<br>noncompliance; 100%<br>training coverage.                      | Prior to spud for spill kit. Inspection records of the sitebased spill kits to ensure presence and useability. | Reduction in water quality; Potential for impacts on plankton and fish  |

| UID   | ESIA<br>Section<br>Reference<br>s (Aspect<br>Codes) | Project Phases / Activity /<br>Aspect  | Receptors                                    | Mitigation   | Responsible Party<br>(for implementation)  | Project Documentation<br>(environmental and social<br>management plan,<br>standards, ESMP matrix,<br>etc)  | Performance Indicator/s   | Monitoring Frequency  | Impact/s to be Managed  |
|-------|---|--|--|--|--|--|---|---|---|
| MR-9  | OAE05   | Logistics base operation – chemicals management  | None providing chemicals<br>managed properly | Logistics base contractor will keep and maintain a register of dangerous and hazardous goods stored on location along with relevant copies of MSDS (Material Safety Data Sheets) and dangerous goods (DG) declarations.  | Logistics Base<br>Contractor;  | Chemical Management Plan;<br>Logistics Base Contract   | relevant management plan/s;   | Initial check at logistics base final set up, during HSE audit and during weekly HSE tour during drilling programme.  | None under normal operations  |
| PP-38 | OAE05   | Logistics base operation –<br>chemicals management   | None providing chemicals<br>managed properly | The chemical storage areas at the logsitics base will be designed to avoid leak or spillage to the environment. They will have adequate ventilation and shall be protected from rainfall and direct sunlight.  | Logistics Base<br>Contractor;  | Chemical Management Plan;<br>Logistics Base Contract   | Specified and provided for in<br>relevant management plan/s;<br>site verification zero<br>noncompliance | Initial check at logistics base final set up. Weekly site verification. And after any maintenance/service of facilities.                                    | None under normal operations  |
| CM-4  | MAE21   |  | None providing chemicals<br>managed properly | Labelling will comply with regulatory requirements in terms of format and composition.   | TEP Liban; Drilling<br>Contractor; Supply<br>Vessel Contractor;<br>Logistics Base<br>Contractor; Fluids<br>Contractor; Drilling<br>and Acquisition<br>Contractor | Chemicals Management Plan  | Specified and provided for in<br>relevant management plan/s;<br>site verification zero<br>noncompliance | At each load out on the base. Otherwise site verification every 3 weeks.  | None under normal operations  |
| CM-5  | MAE21   |  | None providing chemicals<br>managed properly | Chemical products that are required at the MODU (and haven't been pre-mixed onshore) will be packed into mini containers, or open cargo carrying units (CCUs), that are certified and appropriately colour coded for safe transfer from jetty to supply vessel and supply vessel to MODU | Contractor; Supply<br>Vessel Contractor;<br>Logistics Base   | , and the second | Specified and provided for in<br>relevant management plan/s;<br>site verification zero<br>noncompliance |   | None under normal operations  |
| CM-6  | MAE21   | Chemicals transfer and storage   | None providing chemicals managed properly    | MSDS will be present onboard the supply boat during transfer and on the MODU.  | TEP Liban; Drilling<br>Contractor; Supply<br>Vessel Contractor;<br>Logistics Base<br>Contractor; Fluids<br>Contractor; Drilling<br>and Acquisition<br>Contractor | Chemicals Management Plan  | Specified and provided for in relevant management plan/s; site verification zero noncompliance          | At each load out on the base.   | None under normal operations  |
| CM-7  | MAE21   |  | None providing chemicals managed properly    | All personnel involved in the transfer and handling or all personnel who might be exposed to hazardous chemicals will be trained on the potential hazards involved.  | TEP Liban; Drilling Contractor; Supply Vessel Contractor; Logistics Base Contractor; Fluids Contractor; Drilling and Acquisition Contractor                      | Chemicals Management Plan  |   | Training matrix to be provided by Contractors for all personnel involved and will be updated at each personnal change.                                      | None under normal operations  |
| CM-8  | MAE21;<br>OAE05;<br>AE2                             | Chemicals transfer and<br>storage; Logistics base<br>operation – chemicals<br>management; Loss of<br>chemical containment<br>onboard MODU. | None providing chemicals<br>managed properly | Chemicals will be stored separately according to their potential hazard and compatibility.   | Drilling Contractor;<br>Supply Vessel<br>Contractor; Logistics<br>Base Contractor;   | Chemicals Management Plan  | Specified and provided for in relevant management plan/s; site verification zero noncompliance          | At time of receiving goods - then every week during safety tour.  | None under normal operations  |
| CM-9  | MAE21   |  | None providing chemicals<br>managed properly | A full register of all chemicals inventory and consumption records shall be maintained on each site.   | Drilling Contractor;<br>Supply Vessel<br>Contractor; Logistics<br>Base Contractor  | Chemicals Management Plan  | Specified and provided for in<br>relevant management plan/s;<br>site verification zero<br>noncompliance | During each weekly safety tour  | None under normal operations  |
| CM-3  | MAE21   | Chemicals transfer and storage   | None providing chemicals managed properly    | All chemicals will be packaged according to manufacturer's instructions  | Drilling Contractor;<br>Supply Vessel<br>Contractor;   | Chemicals Management<br>Plan; Company Rules  | Specified and provided for in relevant management plan/s; site verification zero noncompliance          | At each load out on the base.   | None under normal operations  |
| TR-6  | AE11  | ·  |  | Rig crew will be ready to disconnect in case of emergency.   | TEP Liban; Drilling<br>Contractor  | Company Rules  |   | Crew training records checked prior to operations start up. and subsequently at 14 day intervals Loss of position drills reported in daily drilling report. | Potential condensate spill impacts on plankton, fish, seabirds, cetaceans, turtles and seals and coastal habitats, fishing, shipping, tourism, infrastructure (water intakes), archaeological and cultural resources and therefore general economy / industry; Potential health impacts on coastal communities from spills reaching shore and possible consumption of contaminated fish; Transboundary impacts also predicted in offshore waters and shoreline of Syria |

| UID    | ESIA<br>Section<br>Reference<br>s (Aspect<br>Codes) | Project Phases / Activity /<br>Aspect  | Receptors   | Mitigation   | Responsible Party<br>(for implementation)            | etc)                            | Performance Indicator/s  | Monitoring Frequency   | Impact/s to be Managed   |
|--------|---|--|---|--|--|---------------------------------|--|--|--|
| PP-18  | MAE04;<br>MAE16                                     | Drilling of lower well sections using synthetic NADFs - ship to shore of cuttings; MODU and support / supply vessel / helicopter transfer plant operation resulting in air emissions | Air quality; Climate change   | Fuel efficiency measures shall be taken into account in the selection of MODU, support / supply vessels and helicopters.   | Drilling Contractor;<br>Supply Vessel<br>Contractor; | Company Rules; Call for Tenders | High fuel efficiency vessels<br>prioritized during MODU and<br>PSV selection;<br>Zero noncompliance with<br>selection procedure;<br>Fuel consumption.                | During tender technical evaluation process;<br>Fuel consumption for PSV and MODU<br>recorded daily and reported to TEP Liban<br>monthly. | Reduction in air quality; GHG emissions contribute to climate change   |
| HSS-10 | AE8   | Helicopter crash on MODU<br>deck – release of aviation<br>fuel to sea  | Water quality; Plankton   | Selection procedure in place for certified helicopter contractor, and flying crew will be certified.   | TEP Liban; Helicopter<br>Contractor;                 | Company Rules; Scope of<br>Work | All flying crew with certified training  | Training / competancy records at start of the operations, or upon change of pilots   | Reduction in water quality; Potential indirect impacts on plankton   |
| HSS-11 | AE8   | Helicopter crash on MODU<br>deck – release of aviation<br>fuel to sea  | Water quality; Plankton   | Helicopters will only operate within their weather limits and during daylight hours (except in case of MEDEVAC which is not restricted to daylight flights).   | TEP Liban; Helicopter<br>Contractor;                 | Company Rules; Scope of<br>Work | Specified and provided for in relevant management plan/s; site verification zero noncompliance.  | Airport Civil Aviation Authority provides authorisation for each flight.   | Reduction in water quality; Potential indirect impacts on plankton   |
| HSS-16 | OAS01   | Logistics base operation   | Tourism   | Logistics base operator will be selected based on strict HSE criteria compliant with international regulations for oil and gas activities and applicable TOTAL E&P rules.  | TEP Liban;   | Company Rules; Scope of Work    | Zero noncompliance with selection process.   | Once during selection of operator. Then HSE audit planned prior operations start.  | Increase in level of industrial activities within the territory of the Port and at logistics base used for the project may interfere with other businesses focused on tourism activities if located close to logistics base  |
| SA-4   | MAS03   | Support activities<br>(Movement of support<br>vessels)   | Infrastructure (Beirut Port);<br>Shipping; Fisheries;<br>Tourism, (recreational<br>activities)  | The supply vessel movements and the likely duration of their activities will be communicated to the port maritime authorities.   | Supply Vessel<br>Contractor;                         | Company Rules; Scope of Work    | Complaints; evidence of communications.  | Information provided on a per trip basis   | Potential to interfere with other sea users passing through Beirut Port and within the transit route to MODU; Increased vessel transfer through Beirut Port area increases risk of vessel collision  |
| SOC-15 | MAS01   | MODU mobilisation,<br>installation, plug and<br>abandonment and<br>demobilisation  | Shipping  | Vessels and crafts used for or involved in Petroleum Activities shall comply with applicable international and Lebanese laws and regulations regarding Petroleum Activities and navigation; vessels and crafts shall abide by instructions given by competent Lebanese authorities and by competent Lebanese naval vessels, patrol boats or crafts.  | TEP Liban;   | Company Rules; Scope of<br>Work | Zero complaints /<br>nonconformance with<br>competent Lebanese<br>authorities and or competent<br>Lebanese naval vessels,<br>patrol boats or crafts<br>instructions. | Complaints and nonconformance records on a monthly basis.  | Disruption to sea users – mainly tankers, cargo ships and container ships - due to diversion to avoid 500 m safety zone  |
| SOC-16 | OAS01   | Logistics base operation   | Employment  | TEP Liban will make it a contractual requirement that its contractors and subcontractors comply with all applicable labour laws.   | TEP Liban;   | Company Rules; Scope of<br>Work | Specified and provided for in relevant management plan/s; site verification zero noncompliance.  | Stipulated in the contract signed. Once.   | Potential for positive impacts on the employment of a local workforce (opportunities are limited at this exploration phase); Opportunities in terms of provision of service  |
| SOC-17 | OAS02   | Logistics base operation   | Public Health   | Logistics Base Operator will respect traffic movement restrictions at the Port.  | Logistics Base<br>Contractor;                        | Company Rules; Scope of Work    | Specified and provided for (operational limits) in relevant management plan/s; site verification zero noncompliance.   | Review noncompliance records and corrective actions at each occurrence.  | Decreased in air quality from transport emissions affecting human health; Disturbance from noise from transport activities causing disturbance and nuisance to human health  |
| WM-1   | MAE03;<br>MAS02                                     | Drilling of lower well<br>sections using HPWBDF -<br>discharge of cuttings and<br>fluids; MODU operations  | Seabed quality /<br>composition; Benthos;<br>Water quality; Plankton;<br>Nekton (fish); Cetaceans,<br>turtles and seals; Sensitive<br>seabed habitats | Drilling fluids and cuttings from the lower hole sections will be returned to the rig and separated using the onboard solids control equipment (shale shakers and centrifuges). Separated drilling fluids will be reused and the cuttings discharged to sea. If discharge of HPWBDF cuttings (Option 2) is selected for a future well in Block 4, cuttings dispersion modelling that is specific to the new well location will be conducted and the MoE informed of results. | TEP Liban; Drilling<br>Fluids Contractor;            | Company Rules; Scope of<br>Work | Specified and provided for in relevant management plan/s; site verification zero noncompliance. Additional modelling if required.                                    | Equipment checked at acceptance. Function of equipment checked constantly during discharges to ensure no non-compliance.                 | Burial or smothering of benthic communities; Oxygen depletion in sediments; Changes to sediment structure and quality; Changes to water quality; Potential for toxicity or bioaccumulation effects; Potential for indirect effects on plankton, fish and sensitive seabed habitats |
| WM-2   | MAE03;<br>MAS02                                     | Drilling of lower well<br>sections using HPWBDF -<br>discharge of cuttings and<br>fluids; MODU operations  | Seabed quality / composition; Benthos; Water quality; Plankton; Nekton (fish); Cetaceans, turtles and seals; Sensitive seabed habitats                | Cuttings discharge chute will be approximately 10 m below the sea surface to aid good dispersion of the solids.  | TEP Liban; Drilling<br>Fluids Contractor;            | Company Rules; Scope of Work    | Specified and provided for in relevant management plan/s; site verification zero noncompliance.  | Equipment checked at acceptance.   | Burial or smothering of benthic communities; Oxygen depletion in sediments; Changes to sediment structure and quality; Changes to water quality; Potential for toxicity or bioaccumulation effects; Potential for indirect effects on plankton, fish and sensitive seabed habitats |
| WM-3   | MAE04   | Drilling of lower well<br>sections using synthetic<br>NADFs - ship to shore of<br>cuttings   | Air quality; Climate change   | Separated drilling fluids will be reused. Residual drilling fluids that no longer fulfil the product specification will be managed by the drilling well services contractor.   | TEP Liban; Drilling<br>Fluids Contractor;            | Company Rules; Scope of<br>Work | Specified and provided for in relevant management plan/s; site verification zero noncompliance.  | Monitored daily  | Reduction in air quality due to significant transportation requirements; GHG emissions contribute to climate change  |

| UID   | ESIA<br>Section<br>Reference<br>s (Aspect<br>Codes) | Project Phases / Activity /<br>Aspect  | Receptors   | Mitigation   | Responsible Party<br>(for implementation)           | Project Documentation<br>(environmental and social<br>management plan,<br>standards, ESMP matrix,<br>etc) | Performance Indicator/s  | Monitoring Frequency   | Impact/s to be Managed  |
|-------|---|--|---|--|---|---|--|--|---|
| TR-3  | AE6   | condensate and gas   | Air quality; Water quality;<br>Plankton; Fish; Seabirds;<br>Cetaceans, turtles & seals;<br>Coastal habitats; Fisheries;<br>Shipping; Tourism;<br>Public Health; Social<br>conditions; General<br>economy / industry;<br>Infrastructure; Archaeology<br>and cultural resources | Critical personnel will be trained and certified in well control.  | TEP Liban; Drilling<br>Contractor                   | Contractor Training<br>Procedure; Rig Contract  | Specified and provided for in relevant management plan/s; site verification zero noncompliance. 100% coverage of all relevant personnel; training records. | Checked prior to operations start up and at each personnel change  | Potential condensate spill impacts on plankton, fish, seabirds, cetaceans, turtles and seals and coastal habitats, fishing, shipping, tourism, infrastructure (water intakes), archaeological and cultural resources and therefore general economy / industry; Potential health impacts on coastal communities from spills reaching shore and possible consumption of contaminated fish; Transboundary impacts also predicted in offshore waters and shoreline of Syria |
| PP-27 | MAE21;<br>AE2                                       | Chemicals transfer and storage; Loss of chemical containment onboard MODU.   | None providing chemicals<br>managed properly  | All chemicals will be held in secure and leak-proof containers suitably labeled to indicate the nature of the substance and risk involved.   | Drilling Contractor;<br>Supply Vessel<br>Contractor | Contractor's Chemical<br>Management Plan  | Specified and provided for in relevant management plan/s; site verification zero noncompliance   | Initial check prior to mobilisation. Prior to each chemical delivery.  | None under normal operations  |
| PP-5  | MAE11;<br>MAS02                                     | Discharge of drainage<br>water (deck drainage, fire<br>water, bilge water and slop<br>water) from MODU and<br>support/supply vessels;<br>MODU operations | Water quality; Plankton;<br>Nekton (fish)   | Drainage water from process areas will go to closed drains and only water from non-process areas to open drains.   | Drilling Contractor;<br>Supply Vessel<br>Contractor | Contractor's Hazard Register  | Specified and provided for in relevant management plan/s; site verification zero noncompliance   |  | Reduction in water quality; Potential for impacts on plankton and fish  |
| CM-11 | AE3   |  | Sediment quality / composition  | Only sealed radioactive sources used.  | Drilling Contractor                                 | Contractor's Radiation<br>Standard; Company Rules;<br>Scope of Work                                       | Specified and provided for in relevant management plan/s; site verification zero noncompliance   | During kick off meeting; site verification at time of loading onboard PSV.   | Potential radiation impact on sediments and geology   |
| MR-4  | MAE22   | Logging using radioactive<br>sealed sources (also<br>applicable to onshore<br>storage and transport of<br>radioactive sealed sources)                    | None under normal operations  | Radioactive sources will be managed in line with international regulations.  | Drilling and Acquisition<br>Contractor              | Contractor's Radiation<br>Standard; Company Rules;<br>Scope of Work                                       | Specified and provided for in relevant management plan/s; site verification zero noncompliance   | Review of supply chain documentation prior to transport and use of source.   | None under normal operations  |
| BIO-5 | MAE01;<br>MAS01;<br>MAS02                           | installation, plug and<br>abandonment and<br>demobilisation; MODU<br>operations  | Seabed quality /<br>composition; Benthos;<br>Sensitive seabed habitats;<br>Water quality, air quality,<br>UW noise; Archaeological<br>and cultural resources  | If a semi-submersible is selected impacts will be minimised by ROV survey of the seabed to select optimum anchor positions that avoid sensitive seabed features.   | TEP Liban;  | Drill Site Assessment   | Specified and provided for in relevant management plan; site verification zero noncompliance   | Site survey will be performed in sufficient time ahead of anchoring such that anchor plan can be established. For B4-1, MODU is a drillship.                             | Physical disturbance of sediments, benthic communities and sensitive seabed habitats from anchoring and removal of the blowout preventer (BOP) and cement plugging operations   |
| HSS-7 | AE5   | release of gas into water column during riserless operations   | Air quality; Water quality;<br>Sediment quality /<br>composition; Benthos;<br>Plankton; Fish; Fisheries;<br>Shipping  | First two sections of well will be drilled riserless. If shallow gas encountered, it will be released at seabed with no impact on MODU.  |   | Drill Site Assessment   |  | Shallow gas risk verified well in advance of spud and reported within Drill Site Assessment document. Shallow gas occurrence verified during riserless section with ROV. | Reduction in air quality, water quality and sediment quality;<br>Potential indirect impacts on benthos, fish and fisheries; Potential<br>for gas in water column to affect shipping   |
| CH-2  | MAS02   |  | Fisheries; Archaeological<br>and cultural resources;<br>Benthos; Archaeological<br>and cultural resources   | Predrill wellsite assessments will be completed to provide high-resolution bathymetric and 3D/2D seismic data to identify seabed geohazards, habitat and, detect archaeological sites previously not detected; to inform avoidance measures and a wellsite free of geohazards. | TEP Liban; Drilling<br>Contractor;                  | Drill Site Assessment;<br>Company Rules   | Specified and provided for in<br>relevant management plan;<br>site verification zero<br>noncompliance  | Site survey will be performed in sufficient time ahead of spudding to sensitive sites will not be affected.  Already completed for well B4-1.                            | Potential for physical disturbance of unknown marine archaeological resources during well spud (at all 3 possible well locations).  |
| MR-13 | AE5   | column during riserless operations   | Air quality; Water quality;<br>Sediment quality /<br>composition; Benthos;<br>Plankton; Fish; Fisheries;<br>Shipping  | ROV monitoring will be carried out during riserless operations.  | TEP Liban; ROV<br>Contractor;                       | Drilling Program  | Specified and provided for in<br>relevant management plan;<br>site verification zero<br>noncompliance  | ROV monitoring throughout riserless operations.  | Reduction in air quality, water quality and sediment quality;<br>Potential indirect impacts on benthos, fish and fisheries; Potential<br>for gas in water column to affect shipping   |
| PP-2  | MAE05   | Cementing discharges during drilling   | Seabed quality / composition; Benthos   | Discharge of cement to seabed only from 20" casing.  | TEP Liban; Drilling<br>Fluids Supervisor            | Drilling Program  | The quantity of released excess cement slurry  | Daily during cementing phase.  | Cement may smother seabed and change its pH; Potential for toxicity or bioaccumulation effects  |
| PP-3  | MAE05   | Cementing discharges during drilling   | Seabed quality / composition; Benthos   | Careful monitoring of cement discharges using an ROV to ensure discharges are kept to a minimum.   | TEP Liban; Drilling<br>Fluids Supervisor            | Drilling Program  | N/A  | ROV monitoring throughout cement job.  | Cement may smother seabed and change its pH; Potential for toxicity or bioaccumulation effects  |

| UID   | ESIA<br>Section<br>Reference<br>s (Aspect<br>Codes) | Project Phases / Activity /<br>Aspect          | Receptors   | Mitigation   | Responsible Party<br>(for implementation) | Project Documentation<br>(environmental and social<br>management plan,<br>standards, ESMP matrix,<br>etc) | Performance Indicator/s   | Monitoring Frequency  | Impact/s to be Managed  |
|-------|---|--|---|--|---|---|---|---|---|
| PP-22 | MAE17   | Well test of possible future appraisal well    | Air quality; Climate change   | If flaring is the sole option available for the disposal of well test fluids, only the minimum volume of hydrocarbons required for the test will be flowed and the well test duration will be reduced to the extent practical.           | TEP Liban; Drilling<br>Contractor;        | Drilling Program of Appraisal<br>Well; Company Rules; Scope<br>of Work                                    | Volume of gas flared  | During the well test operations   | Reduction in air quality; GHG emissions contribute to climate change  |
| PP-23 | MAE17   | Well test of possible future appraisal well    | Air quality; Climate change   | An efficient well test flare burner head equipped with an appropriate combustion enhancement system (e.g. "evergreen burners" type) will be selected to minimise incomplete combustion, black smoke, and hydrocarbon fallout to the sea. | TEP Liban; Drilling<br>Contractor;        | Drilling Program of Appraisal<br>Well; Company Rules; Scope<br>of Work                                    | Specified and provided for in<br>relevant management plan/s;<br>site verification zero<br>noncompliance | Once, review of supply chain documentation with regard to efficiency having greater importance than cost in selection process               | Reduction in air quality; GHG emissions contribute to climate change  |
| PP-24 | MAE17   | Well test of possible future<br>appraisal well |   | Whenever possible, the liquid phase of the separator shall be re-injected into the process lines or stored in appropriate tanks, and only the gaseous phase shall be burned.   | TEP Liban; Drilling<br>Contractor;        | Drilling Program of Appraisal<br>Well; Company Rules; Scope<br>of Work                                    | Least polluting option chosen.  | Prior to well test operations startup.  | Reduction in air quality; GHG emissions contribute to climate change  |
| MR-14 | AE6   | condensate and gas                             | Air quality; Water quality;<br>Plankton; Fish; Seabirds;<br>Cetaceans, turtles & seals;<br>Coastal habitats; Fisheries;<br>Shipping; Tourism;<br>Public Health; Social<br>conditions; General<br>economy / industry;<br>Infrastructure; Archaeology<br>and cultural resources | Pore pressure will be closely monitored (flow checks).   | TEP Liban; Drilling<br>Contractor;        | Drilling Program; Company<br>Rules  | Specified and provided for in relevant management plan; site verification zero noncompliance            | Constant monitoring performed during critical sections.   | Potential condensate spill impacts on plankton, fish, seabirds, cetaceans, turtles and seals and coastal habitats, fishing, shipping, tourism, infrastructure (water intakes), archaeological and cultural resources and therefore general economy / industry; Potential health impacts on coastal communities from spills reaching shore and possible consumption of contaminated fish; Transboundary impacts also predicted in offshore waters and shoreline of Syria |
| MR-15 | AE6   | condensate and gas                             | Air quality; Water quality;<br>Plankton; Fish; Seabirds;<br>Cetaceans, turtles & seals;<br>Coastal habitats; Fisheries;<br>Shipping; Tourism;<br>Public Health; Social<br>conditions; General<br>economy / industry;<br>Infrastructure; Archaeology<br>and cultural resources | Integrity of cementing operations will be checked.   | TEP Liban; Drilling<br>Contractor;        | Drilling Program; Company<br>Rules  | Specified and provided for in<br>relevant management plan;<br>site verification zero<br>noncompliance   | Constant monitoring of parameters during cementing operations.  | Potential condensate spill impacts on plankton, fish, seabirds, cetaceans, turtles and seals and coastal habitats, fishing, shipping, tourism, infrastructure (water intakes), archaeological and cultural resources and therefore general economy / industry; Potential health impacts on coastal communities from spills reaching shore and possible consumption of contaminated fish; Transboundary impacts also predicted in offshore waters and shoreline of Syria |
| MR-16 | AE6   | condensate and gas                             | Air quality; Water quality;<br>Plankton; Fish; Seabirds;<br>Cetaceans, turtles & seals;<br>Coastal habitats; Fisheries;<br>Shipping; Tourism;<br>Public Health; Social<br>conditions; General<br>economy / industry;<br>Infrastructure; Archaeology<br>and cultural resources | BOP and well control equipment testing will be conducted.  | TEP Liban; Drilling<br>Contractor;        | Drilling Program; Company<br>Rules  | Specified and provided for in<br>relevant management plan;<br>site verification zero<br>noncompliance   | Frequency stated in drilling program and bridging doc. Monitoring carried out at least daily, and status included in Daily Drilling Report. | Potential condensate spill impacts on plankton, fish, seabirds, cetaceans, turtles and seals and coastal habitats, fishing, shipping, tourism, infrastructure (water intakes), archaeological and cultural resources and therefore general economy / industry; Potential health impacts on coastal communities from spills reaching shore and possible consumption of contaminated fish; Transboundary impacts also predicted in offshore waters and shoreline of Syria |
| PL-3  | AE6   | condensate and gas                             | Air quality; Water quality;<br>Plankton; Fish; Seabirds;<br>Cetaceans, turtles & seals;<br>Coastal habitats; Fisheries;<br>Shipping; Tourism;<br>Public Health; Social<br>conditions; General<br>economy / industry;<br>Infrastructure; Archaeology<br>and cultural resources | Drilling fluid weight and properties will be controlled.   | TEP Liban; Drilling<br>Fluids Contractor  | Drilling Program; Company<br>Rules  | Specified and provided for in relevant management plan/s; site verification zero noncompliance.         | Fluids parameters monitored several times a day   | Potential condensate spill impacts on plankton, fish, seabirds, cetaceans, turtles and seals and coastal habitats, fishing, shipping, tourism, infrastructure (water intakes), archaeological and cultural resources and therefore general economy / industry; Potential health impacts on coastal communities from spills reaching shore and possible consumption of contaminated fish; Transboundary impacts also predicted in offshore waters and shoreline of Syria |
| TR-4  | AE6   | condensate and gas                             | Air quality; Water quality;<br>Plankton; Fish; Seabirds;<br>Cetaceans, turtles & seals;<br>Coastal habitats; Fisheries;<br>Shipping; Tourism;<br>Public Health; Social<br>conditions; General<br>economy / industry;<br>Infrastructure; Archaeology<br>and cultural resources | Frequent kick drills will be conducted.  | TEP Liban; Drilling<br>Contractor         | Drilling Program; Company<br>Rules  |   | Drills reported on daily drilling report. Drills carried out before entering reservoir phases.  | Potential condensate spill impacts on plankton, fish, seabirds, cetaceans, turtles and seals and coastal habitats, fishing, shipping, tourism, infrastructure (water intakes), archaeological and cultural resources and therefore general economy / industry; Potential health impacts on coastal communities from spills reaching shore and possible consumption of contaminated fish; Transboundary impacts also predicted in offshore waters and shoreline of Syria |

| UID    | ESIA<br>Section<br>Reference<br>s (Aspect<br>Codes) | Project Phases / Activity /<br>Aspect                                 | Receptors  | Mitigation  | Responsible Party<br>(for implementation)   | Project Documentation<br>(environmental and social<br>management plan,<br>standards, ESMP matrix,<br>etc) | Performance Indicator/s  | Monitoring Frequency  | Impact/s to be Managed  |
|--------|---|---|--|---|---|---|--|---|---|
| TR-5   | AE10  | capsize) with release of fuel inventory                               | Water quality; Plankton;<br>Fish; Seabirds; Cetaceans,<br>turtles & seals; Sensitive<br>marine habitats (offshore);<br>Coastal habitats; Fisheries;<br>Shipping; Tourism; Public<br>health; Social conditions;<br>General economy / industry;<br>Infrastructure;<br>Archaeological and cultural<br>resources | Emergency disconnect sequence will be in place that is tested and exercised.  | TEP Liban; Drilling<br>Contractor   | Drilling Program; Company<br>Rules  | Specified and provided for in relevant management plan/s; site verification zero noncompliance. 100% coverage of all relevant personnel; training records. | • .   | Potential condensate spill impacts on plankton, fish, seabirds, cetaceans, turtles and seals and coastal habitats, fishing, shipping, tourism, infrastructure (water intakes), archaeological and cultural resources and therefore general economy / industry; Potential health impacts on coastal communities from spills reaching shore and possible consumption of contaminated fish; Transboundary impacts also predicted in offshore waters and shoreline of Syria |
| PL-4   |   | condensate and gas  | Air quality; Water quality;<br>Plankton; Fish; Seabirds;<br>Cetaceans, turtles & seals;<br>Coastal habitats; Fisheries;<br>Shipping; Tourism;<br>Public Health; Social<br>conditions; General<br>economy / industry;<br>Infrastructure; Archaeology<br>and cultural resources                                | Well shut in and well control procedure will be in place.   | TEP Liban; Drilling<br>Contractor;  | Drilling Program; Company<br>Rules; DrillSafe Audit Report  |  | Procedure to be in place prior to spud. Displayed onboard in driller's cabin.   | Potential condensate spill impacts on plankton, fish, seabirds, cetaceans, turtles and seals and coastal habitats, fishing, shipping, tourism, infrastructure (water intakes), archaeological and cultural resources and therefore general economy / industry; Potential health impacts on coastal communities from spills reaching shore and possible consumption of contaminated fish; Transboundary impacts also predicted in offshore waters and shoreline of Syria |
| BIO-2  | MAE18   |   | Nekton (fish); Cetaceans,<br>turtles and seals   | Use of soft start procedures for VSP airguns.   | Drilling and Acquisition<br>Contractor  | Environmental Standard  | Records of marine mammal observations and responses  | If VSP, check during all VSP operation.   | Potential for injury / hearing loss, alteration of behaviour, auditory masking, effects on zone of audibility   |
| BIO-3  | MAE18   |   | Nekton (fish); Cetaceans,<br>turtles and seals   | Use of trained MMOs during VSP operations for monitoring of mitigation exclusion zone (radius 500 m) and delay in start-up of airguns if cetaceans (or turtles) observed within zone. | Drilling and Acquisition<br>Contractor  | Environmental Standard  | Records of mitifgation measures initiated by MMOs  | If VSP, check during all VSP operation.   | Potential for injury / hearing loss, alteration of behaviour, auditory masking, effects on zone of audibility   |
| BIO-4  | MAE18   |   | Nekton (fish); Cetaceans,<br>turtles and seals   | Use of PAM devices for cetacean detection prior to VSP operations during hours of darkness / reduced visibility.  | Drilling and Acquisition<br>Contractor  | Environmental Standard  | Records of marine mammal vocalisations and responses   | If VSP, check during all VSP operation.   | Potential for injury / hearing loss, alteration of behaviour, auditory masking, effects on zone of audibility   |
| CM-10  | AE2   |   | Sediment quality /<br>composition; Water quality;<br>Benthos; Plankton; Fish;<br>Fisheries   | Chemical storage onboard the MODU will be restricted.   | Drilling Contractor;<br>Supply Vessel<br>Contractor; Logistics<br>Base Contractor | Handling and Storage of<br>Hazardous Materials; Rig<br>Environmental Aspects and<br>Impacts Register      | Specified and provided for in relevant management plan/s; site verification zero noncompliance   | Daily   | Reduction in water quality and sediment quality; Potential indirect effects on benthos, plankton, fish and fisheries  |
| PP-48  | AE8   | Helicopter crash on MODU<br>deck – release of aviation<br>fuel to sea | Water quality; Plankton  | Helicopter transportation will be restricted to daylight hours except for possible Medevac  | TEP Liban; Helicopter<br>Contractor   | Helicopter Contract   | Zero noncompliance   | Airport Civil Aviation Authority provides authorisation for each flight. Any accident is reported as per Emergency Response Plan. | Reduction in water quality; Potential indirect effects on plankton  |
| PL-5   | AE8   | Helicopter crash on MODU<br>deck – release of aviation<br>fuel to sea | Water quality; Plankton  | Helideck will meet CAP 437 specs for lights, illumination, marking, net, dimension, integrity, certification.   | TEP Liban; Helicopter<br>Contractor;  | Helicopter Contract;<br>Company Rules   | Zero noncompliance   | Certification of the helideck checked and approved prior to contract set up. Daily check of lights and net conditions.            | Reduction in water quality; Potential indirect impacts on plankton  |
| SOC-10 | OAS03   | Support activities<br>(Helicopter transfer)                           | Public Health; Tourism;<br>Infrastructure (air traffic)  | Helicopter transfers will be planned for daylight hours to minimise noise disturbance to local communities at night.  | TEP Liban; Logistics<br>Base Contractor;  | Helicopter Contract;<br>Company Rules   | Specified and provided for in relevant management plan/s; site verification zero noncompliance   | Recorded on a per - flight basis. Flight plan approved by Lebanese Air Force.   | Increase in airborne noise disturbing residential areas if flying route is passing near the house and local holidaymakers if passing near hotels or other noise sensitive businesses; Potential burden on existing flight control facilitie   |
| SOC-18 | OAS01   | Logistics base operation  | Tourism  | No expansion of the Port footprint will be required due to presence of Project logistics Base.  | TEP Liban; Logistics<br>Base Contractor;  | HSE Plan  | No expansion of port<br>footprint as a result of<br>Project logistics Base<br>presence / activity.   | NA  | Increase in level of industrial activities within the territory of the Port and at logistics base used for the project may interfere with other businesses focused on tourism activities if located close to logistics base   |

| UID    | ESIA<br>Section<br>Reference<br>s (Aspect<br>Codes) | Project Phases / Activity /<br>Aspect  | Receptors  | Mitigation  | Responsible Party<br>(for implementation)                           | Project Documentation<br>(environmental and social<br>management plan,<br>standards, ESMP matrix,<br>etc) | Performance Indicator/s   | Monitoring Frequency  | Impact/s to be Managed  |
|--------|---|--|--|---|---|---|---|---|---|
| HSS-12 | AE10  | ,  | Water quality; Plankton;<br>Fish; Seabirds; Cetaceans,<br>turtles & seals; Sensitive<br>marine habitats (offshore);<br>Coastal habitats; Fisheries;<br>Shipping; Tourism; Public<br>health; Social conditions;<br>General economy / industry;<br>Infrastructure;<br>Archaeological and cultural<br>resources | Marine crew will be certified.  | Drilling Contractor   | HSE Training Plan   | All marine crew with certified training   | operations, or upon change of pilots  | Potential condensate spill impacts on plankton, fish, seabirds, cetaceans, turtles and seals and coastal habitats, fishing, shipping, tourism, infrastructure (water intakes), archaeological and cultural resources and therefore general economy / industry; Potential health impacts on coastal communities from spills reaching shore and possible consumption of contaminated fish; Transboundary impacts also predicted in offshore waters and shoreline of Syria |
| MR-23  | AE12  |  | Water quality; Tourism -<br>logistics base located close<br>to yachting club   | Periodic inspections of oil spill kits and restocking of kits will be carried out by the logistics base contractor.   | Logistics Base<br>Contractor;                                       | Industry best practice  |   | Initial check at logistics base final set up, during HSE audit and during weekly HSE tour.  | Reduction in water quality within the port; Disruption of access to water for sailing club vessels during any clean-up  |
| PP-32  | OAE01;<br>OAS01;<br>OAS02                           | Logistics base operation;<br>Transport of materials to /<br>from the logistics base<br>(vessel and vehicle activity) | Air quality; Climate change;<br>Public Health (Air Quality)  | Low sulphur fuel to be used at the logistics base where practicable.  | TEP Liban; Logistics<br>Base Contractor                             | Industry best practice  | less than 0.5%  | fuel bunkering.   | Reduction in air quality; GHG emissions contribute to climate change; Reduction in air quality due to activities at Logistics Base inside the Port (air emissions/dust, vibration from machinery and noise), affecting nearby communities; Decreased in air quality from transport emissions affecting human health; Disturbance from noise from transport activities causing disturbance and nuisance to human health  |
| PP-33  | OAE02   | Logistics base operation -<br>discharge of drainage water  | Water quality  | Site drainage from the logistics base will only be permitted from non-contaminated areas.   | Logistics Base<br>Contractor  | Industry best practice  | Specified and provided for in relevant management plan/s; site verification zero noncompliance  | Initial check at logistics base final set up. Daily site verification.  | Local effect on water quality   |
| PP-40  | OAS01;<br>OAE01                                     | Logistics base operation -<br>emissions to air   | Public Health; Air Quality   | Any transfer of dry bulk from the drilling fluids mixing plant dry bulk silos will be carried out with the use of a dust collector unit to minimise dust migration to the surrounding environment   | TEP Liban; Logistics<br>Base Contractor                             | LMP and Cementing<br>Contractors  |   | used during each bulk transfer.   | Reduction in air quality; GHG emissions contribute to climate change; Reduction in air quality due to activities at Logistics Base inside the Port (air emissions/dust, vibration from machinery and noise), affecting nearby communities   |
| TR-1   | MAE14   | Generation of solid waste on MODU and support / supply vessels   | None providing waste managed properly  | Waste management awareness will be raised among personnel through site inductions, toolbox talks, site HSE committee meetings (if applicable), performance reports and general waste management awareness campaigns (e.g. posters, brochures).            | Drilling Contractor;<br>Supply Vessel<br>Contractor;                | Logistics Base Bridging<br>Document   | 100% coverage of all personnel; training records.   | Training records for all personnel at start of operations and at each change of personnel.  | None under normal operations  |
| TR-7   | AE12  |  | Water quality; Tourism -<br>logistics base located close<br>to yachting club   | Relevant key personnel will be trained in spill response.   | Logistics Base<br>Contractor;                                       | Logistics Base Bridging<br>Document   | relevant management plan/s; site verification zero  | Crew training records checked prior to operations start up. and subsequently at 14 day intervals Loss of position drills reported in daily drilling report. | Reduction in water quality within the port; Disruption of access to water for sailing club vessels during any clean-up  |
| WM-16  | OAE04   | Logistics base operation – waste management  | None providing waste managed properly  | The compatibility of waste streams will be considered when segregating and storing wastes.  | Logistics Base<br>Contractor  | Logistics Base Bridging<br>Document   |   | Site verification of effective waste segregation.  Daily during logistics base operation.   | None under normal operations  |
| WM-17  | OAE04   | Logistics base operation – waste management  | None providing waste managed properly  | The logistics base contractor and waste management contractors will ensure the final destination of the waste is guaranteed and complies with both regulatory requirements and Total contractual commitments and that licence to operate is in place (R). | Logistics Base<br>Contractor and Waste<br>Management<br>Contractors | Logistics Base Bridging<br>Document   | Specified and provided for in relevant management plan/s; site verification zero noncompliance. | Monitored waste tracking notes.   | None under normal operations  |
| HSS-13 | OAS01   | Logistics base operations  | Social Conditions (Security)   | The logistics base operator will cooperate with General Security of the Port and regularly assess security risks through Security Plan as required under their contractual conditions with TEP Liban.   | TEP Liban; Logistics<br>Base Contractor;                            | Logistics Base Contract   | Specified and provided for in relevant management plan/s; site verification zero noncompliance. |   | Logistics base within the Port of Beirut will require an outdoor storage area used as a pipe yard, and an indoor storage area used as a warehouse, offices and other facilities which may require security measures   |
| MR-5   | OAE01   | Logistics base operation - emissions to air  | Air quality; Climate change  | Logistics base operator will monitor consumption of fuel in order to calculate air emission quantities.   | TEP Liban; Logistics<br>Base Contractor                             | Logistics Base Contract   | Fuel consumption reports  | Every month regarding calculating emissions.  | Reduction in air quality; GHG emissions contribute to climate change  |
|        |   |  |  |   |   |   |   |   |   |

| UID   | ESIA<br>Section<br>Reference<br>s (Aspect<br>Codes) | Project Phases / Activity /<br>Aspect  | Receptors  | Mitigation  | Responsible Party<br>(for implementation) | etc)                    | Performance Indicator/s  | Monitoring Frequency  | Impact/s to be Managed  |
|-------|---|--|--|---|---|-------------------------|--|---|---|
| PL-6  | OAS01   | Logistics base operation –<br>water management                                       | Infrastructure   | community demand in order to supply project requirements specifically with regard to mudplant activity.   | Logistics Base<br>Contractor;             | Logistics Base Contract | Number of related complaints.  | Availability of tank checked prior to spud.   | Presence of the project could create additional pressure on existing Port's infrastructure including competition for existing facilities and space inside the Port  |
| PP-31 | OAE01   | Logistics base operation -<br>emissions to air; Logistics<br>base operation          | Air quality; Climate change  | Generators at the logistics base will be operated according to manufacturer's instructions to operate in most energy efficient manner.  | Logistics Base<br>Contractor              | Logistics Base Contract | Fuel consumption of generator  | QHSE monthly report to include number of hours and fuel quantities. Operation against manufacturer's instructions to be included in weekly HSE tour, or following maintenance or service operation. | Reduction in air quality; GHG emissions contribute to climate change  |
| PP-34 | OAE02   | Logistics base operation -<br>discharge of drainage water                            | Water quality  | For areas at the logistics base where there is the potential for spillages, and contaminated runoff, containment will be in place.  | Logistics Base<br>Contractor;             | Logistics Base Contract | Specified and provided for in<br>relevant management plan/s;<br>site verification zero<br>noncompliance  | Initial check at logistics base final set up. Daily site verification.  | Local effect on water quality   |
| PP-35 | OAE03   | Logistics base operation -<br>noise generation                                       | Terrestrial ecology  | Equipment at the logistics base will be well maintained and individual mitigation measures applied if noise levels are higher than maximum allowable noise levels (where feasible).   | Logistics Base<br>Contractor;             | Logistics Base Contract | -1   | Fenceline noise monitoring on a bi-weekly basis during logistics base operational period.   | Disturbance of fauna in vicinity of logistics base  |
| PP-36 | OAE04   | Logistics base operation – waste management  | None providing waste managed properly  | Waste collection and temporary storage at logistics base will be designed to minimise the risk of escape to the environment (for example by particulates, infiltration, runoff or odors).   | Logistics Base<br>Contractor;             | Logistics Base Contract | Specified and provided for in<br>relevant management plan/s;<br>site verification zero<br>noncompliance  | Initial check at logistics base final set up. Daily site verification.  | None under normal operations  |
| PP-37 | OAE04   | Logistics base operation –<br>waste management                                       | None providing waste managed properly  | Wastes will be stored in areas of the logistics base that minimise the risk of accidental loss of confinement or leaching (bunded areas). All effluents from waste storage areas will be collected and disposed of appropriately.   | Logistics Base<br>Contractor;             | Logistics Base Contract | Specified and provided for in relevant management plan/s; site verification zero noncompliance   | Initial check at logistics base final set up. Daily site verification. Maintenance of disposal records.   | None under normal operations  |
| PP-41 | OAS01   | Logistics base operation   | Public Health (Air borne<br>noise)   | At present the layout of the logistics base is not finalised. During the final design of the layout equipment which has the highest source noise levels will be located as far from the closest residential properties as possible. | TEP Liban; Logistics<br>Base Contractor;  | Logistics Base Contract | Specified and provided for in relevant management plan/s; zero noncompliance with manufacturer's recommended maintenance schedule; zero nonconformance with fenceline noise limit. | Initial check at logistics base final set up.   | Increase in ambient noise disturbing residential properties, businesses and leisure and recreation facilities in the vicinity of the logistics base   |
| PP-42 | OAS01   | Logistics base operation   | Public Health (Air borne<br>noise)   | Noise monitoring will be carried out at the logistics base to determine if noise mitigation measures shall be applied (where feasible).   | TEP Liban; Logistics<br>Base Contractor;  | Logistics Base Contract | Noise assessment records; implementation of findings.  | Fenceline noise monitoring on bi-weekly basis during logistics base operational period. If attentuation is required then monitoring of performance of attenuation on a weekly basis.                | Increase in ambient noise disturbing residential properties, businesses and leisure and recreation facilities in the vicinity of the logistics base   |
| PP-43 | OAS01;<br>OAS02                                     | Logistics base operation;<br>Transport of materials to /<br>from the logistics base. | Public Health (Air borne<br>noise)   | Airborne noise levels from the logistics base will comply with Lebanese maximum allowable noise levels (Decision 52/1/96) at the Logistics base fenceline.  | TEP Liban; Logistics<br>Base Contractor;  | Logistics Base Contract | Specified and provided for in relevant management plan/s; zero noncompliance with manufacturer's recommended maintenance schedule; zero nonconformance with fenceline noise limit. | Fenceline noise monitoring on a bi-weekly basis during logistics base operational period.   | Increase in ambient noise disturbing residential properties, businesses and leisure and recreation facilities in the vicinity of the logistics base   |
| PP-53 | AE12  |  | Water quality; Tourism -<br>logistics base located close<br>to yachting club                   | Oil spill kits and chemical spill kits will be available on the logistics base and clearly marked.  | Logistics Base<br>Contractor              | Logistics Base Contract |  | Initial check at logistics base final set up,<br>during HSE audit and during daily tour and<br>weekly HSE tour.   | Reduction in water quality within the port; Disruption of access to water for sailing club vessels during any clean-up  |
| PP-62 | OAS02   | Transport of materials to / from the logistics base (vessel and vehicle activity)    | Public Health  | Compliance with the regulatory requirements, including, but not limited to requirements of PAR, OPRL, EPA and MoE decision No. 52/1/1996, National maximum allowable noise levels and the permissible noise exposure standards.     |   | Logistics Base Contract | Zero nonconformance with fenceline noise limit.  | Fenceline noise monitoring biweekly (every 2 weeks).  | Decreased in air quality from transport emissions affecting human health; Disturbance from noise from transport activities causing disturbance and nuisance to human health; Reduction in water quality; Potential indirect effects on plankton |
| SA-3  | MAS03   | Support activities<br>(Movement of support<br>vessels)                               | Infrastructure (Beirut Port);<br>Shipping; Fisheries;<br>Tourism, (recreational<br>activities) | Supply vessels will have designated mooring jetty at the onshore logistics base reducing interference with other non-project vessels using the Port.  | Supply Vessel<br>Contractor;              | Logistics Base Contract | Designated mooring jetty.  | Once during logistic base set up  | Potential to interfere with other sea users passing through Beirut Port and within the transit route to MODU; Increased vessel transfer through Beirut Port area increases risk of vessel collision   |

| UID   | ESIA<br>Section<br>Reference<br>s (Aspect<br>Codes) | Project Phases / Activity /<br>Aspect  | Receptors   | Mitigation  | Responsible Party<br>(for implementation)           | Project Documentation<br>(environmental and social<br>management plan,<br>standards, ESMP matrix,<br>etc) | Performance Indicator/s  | Monitoring Frequency  | Impact/s to be Managed  |
|-------|---|--|---|---|---|---|--|---|---|
| MR-8  | OAE05   | Logistics base operation –<br>chemicals management   | None providing chemicals managed properly   | A certified fire fighting and fire alarm system will be installed at the Logistics base chemical storage areas, with remote alarm control installed in the offices. | Logistics Base<br>Contractor;                       | Logistics Base Contract; HSE<br>Plan  | Zero noncompliance   | Initial check at logistics base final set up, during HSE audit and during daily tour and weekly HSE tour. | None under normal operations  |
| MR-21 |   | Loss of containment during<br>materials transfer to supply<br>vessels at logistics base<br>quay side – release of<br>drilling fluids / diesel to sea | Water quality; Plankton;<br>Nekton (fish); Tourism -<br>logistics base located close<br>to yachting club; Cetaceans<br>turtles and seals; Sediment<br>quality / composition;<br>Benthos; Fisheries  | Transfer hoses will have valve fittings that allow spill free connection and disconnection.   | Logistics Base<br>Contractor;                       | MGO Contract  | Specified and provided for in relevant management plan/s; site verification zero noncompliance.  | Check prior to each fluid transfer.   | Reduction in water quality within the port; Disruption of access to water for sailing club vessels during any clean-up  |
| MR-22 |   |  |   | Certified and pressure tested transfer hoses will be used that are visually inspected before use.   | Logistics Base<br>Contractor;                       | MGO Contract  | Specified and provided for in relevant management plan/s; site verification zero noncompliance.  | Check prior to each fluid transfer.   | Reduction in sediment and water quality; Potential indirect impacts on benthos, plankton, fish and fisheries; Disruption of access to water for sailing club vessels during any clean-up  |
| PP-49 |   | Loss of containment during<br>offshore materials transfer<br>to MODU – release of<br>drilling fluids or marine<br>diesel to sea                      | Sediment quality /<br>composition; Water quality;<br>Benthos; Plankton; Fish;<br>Fisheries  |   | Drilling Contractor;<br>Supply Vessel<br>Contractor | MGO Contract  | The state of the s | Prior to each request for refuelling. Site verification during all transfer activity.                     | Reduction in water quality and sediment quality; Potential indirect effects on benthos, plankton, fish and fisheries  |
| PP-50 |   | Loss of containment during<br>offshore materials transfer<br>to MODU – release of<br>drilling fluids or marine<br>diesel to sea                      | Sediment quality /<br>composition; Water quality;<br>Benthos; Plankton; Fish;<br>Fisheries  | Transfer hoses will be self floating or equipped with floating device to limit the risk of sinking and potential rupture with vessel's propeller.                   | Drilling Contractor;<br>Supply Vessel<br>Contractor | MGO Contract  | Zero noncompliance   | Prior to each request for refuelling. Site verification during all transfer activity.                     | Reduction in water quality and sediment quality; Potential indirect effects on benthos, plankton, fish and fisheries  |
| MR-17 | AE6   | Blowout – release of condensate and gas  | Air quality; Water quality;<br>Plankton; Fish; Seabirds;<br>Cetaceans, turtles & seals;<br>Coastal habitats; Fisheries;<br>Shipping; Tourism;<br>Public Health; Social<br>conditions; General<br>economy / industry;<br>Infrastructure; Archaeology<br>and cultural resources | All spills in Lebanese waters will be reported to the Joint Maritime Operations Chamber (JMOC).   | TEP Liban   | Oil Spill Contingency Plan  | Specified and provided for in relevant management plan; site verification zero noncompliance   | Report issued in case of incident.  | Potential condensate spill impacts on plankton, fish, seabirds, cetaceans, turtles and seals and coastal habitats, fishing, shipping, tourism, infrastructure (water intakes), archaeological and cultural resources and therefore general economy / industry; Potential health impacts on coastal communities from spills reaching shore and possible consumption of contaminated fish; Transboundary impacts also predicted in offshore waters and shoreline of Syria |
| MR-18 | AE6   | Blowout – release of condensate and gas  | Air quality; Water quality;<br>Plankton; Fish; Seabirds;<br>Cetaceans, turtles & seals;<br>Coastal habitats; Fisheries;<br>Shipping; Tourism;<br>Public Health; Social<br>conditions; General<br>economy / industry;<br>Infrastructure; Archaeology<br>and cultural resources | Transboundary impacts will be communicated to Lebanese authorities so that they can notify and consult with potentially affected neighbouring countries.            | TEP Liban   | Oil Spill Contingency Plan  | Specified and provided for in<br>relevant management plan;<br>site verification zero<br>noncompliance  | Report issued in case of incident.  | Potential condensate spill impacts on plankton, fish, seabirds, cetaceans, turtles and seals and coastal habitats, fishing, shipping, tourism, infrastructure (water intakes), archaeological and cultural resources and therefore general economy / industry; Potential health impacts on coastal communities from spills reaching shore and possible consumption of contaminated fish; Transboundary impacts also predicted in offshore waters and shoreline of Syria |
| PP-47 |   | Blowout – release of condensate and gas  | Air quality; Water quality;<br>Plankton; Fish; Seabirds;<br>Cetaceans, turtles & seals;<br>Coastal habitats; Fisheries;<br>Shipping; Tourism;<br>Public Health; Social<br>conditions; General<br>economy / industry;<br>Infrastructure; Archaeology<br>and cultural resources | Any dispersant usage will be approved in advance by the MoE.  | TEP Liban; Drilling<br>Contractor                   | Oil Spill Contingency Plan  | Approval from MoE  | Approval of dispersant application in case of accident by MoE.  | Potential condensate spill impacts on plankton, fish, seabirds, cetaceans, turtles and seals and coastal habitats, fishing, shipping, tourism, infrastructure (water intakes), archaeological and cultural resources and therefore general economy / industry; Potential health impacts on coastal communities from spills reaching shore and possible consumption of contaminated fish; Transboundary impacts also predicted in offshore waters and shoreline of Syria |

| UID   | ESIA<br>Section<br>Reference<br>s (Aspect<br>Codes) | Project Phases / Activity /<br>Aspect  | Receptors   | Mitigation  | Responsible Party<br>(for implementation)  | Project Documentation<br>(environmental and social<br>management plan,<br>standards, ESMP matrix,<br>etc) | Performance Indicator/s  | Monitoring Frequency  | Impact/s to be Managed  |
|-------|---|--|---|---|--|---|--|---|---|
| PP-55 | AE6; AE7;<br>AE8' AE10;                             | gas blowout, release of gas<br>into water column during<br>riserless operations;<br>Shallow gas blowout,<br>release of gas into water<br>column during riserless   | Sediment quality / composition; Water quality; Benthos; Plankton; Fish; Fisheries; Air quality; Shipping; Seabirds; Cetaceans, turtles & seals; Coastal habitats; Tourism; Public Health; Social conditions; General economy / industry; Infrastructure; Archaeology and cultural resources; Sensitive marine habitats (offshore); Coastal habitats | An Oil Spill Contingency Plan (OSCP), Blowout Contingency Plan (BOCP), and Emergency Response Plan (ERP) will be developed and implemented for project. The OSCP will align with the 'National Oil Spill Contingency Plan (NOSCP) in Lebanese Waters' (2017) and will be communicated to the LPA. In the event that a subsequent exploration / appraisal well is drilled in the Block 4 priority area, in a location closer to shore than well B4-1, TEP Liban will carry out further spill modelling and submit the results in a Notification of Change Report to the authorities. | TEP Liban; Drilling<br>Contractor; Supply<br>Vessel Contractor;<br>Helicopter Contractor | OSCP, BOCP, ERP as a part<br>of Company Management<br>System  | Approved OSCP; BOCP and ERP. Additional modelling if required.     | Various plans developed and implemented prior to spud.  | Reduction in air quality, water quality and sediment quality; Potential indirect effects on benthos, plankton, fish, seabirds, cetacean, turtle and seals, marine habitats and fisheries; Potential for gas in water column to affect shipping; Potential condensate spill impacts on plankton, fish, seabirds, cetaceans, turtles and seals and coastal habitats, fishing, shipping, tourism, infrastructure (water intakes), archaeological and cultural resources and therefore general economy / industry; Potential health impacts on coastal communities from spills reaching shore and possible consumption of contaminated fish; Transboundary impacts also predicted in offshore waters and shoreline of Syria; Damage to vessel |
| WM-6  | MAE08;<br>MAS02                                     | Discharge of sanitary waste<br>from MODU and support /<br>supply vessels; MODU<br>operations   | Water quality; Plankton;<br>Nekton (fish)   | MARPÓL 73/78 Annex IV. Grey water will be discharged to sea (without treatment) as long as no floating matter or sheen is observable. Black water will be treated in accordance with MARPOL 73/78 Annex IV prior to discharge.  | Drilling Contractor;<br>Supply Vessel<br>Contractor                                      | Pollution Prevention &<br>Environmental Monitoring<br>Plan  | Compliance/Non-Compliance  | Sheen monitoring undertaken twice daily during discharges.  | Reduction in water quality; Potential for indirect effects on plankton and fish   |
| MR-2  | MAE04;<br>MAE16;<br>MAE17                           | Drilling of lower well sections using synthetic NADFs - ship to shore of cuttings; MODU and support / supply vessel / helicopter transfer plant operation resulting in air emissions; Well test of possible future appraisal | Air quality; Climate change   | Air emissions data (including GHG information) will be submitted to the authorities.  | Drilling Contractor;<br>Supply Vessel<br>Contractor; Logistics<br>Base Contractor        | Pollution Prevention and<br>Environmental Monitoring<br>Plan  | Atmospheric emissions calculated empirically from fuel consumption | Air emissions calculation will be done at end of the project (regarding MODU and vessels)  Reporting to TEP Liban on the fuel consumption will be done on a monthly basis. Air emissions calculation will be done empirically on a monthly basis (regarding logistics base operation) | Reduction in air quality; GHG emissions contribute to climate change  |
| MR-3  | MAE18   | Underwater noise from vertical seismic profile (VSP) activities  | Nekton (fish); Cetaceans, turtles and seals   | Reporting of marine mammal monitoring results and findings of real-time mitigation to ACCOBAMS.   | TEP Liban; Drilling<br>Contractor  | Pollution Prevention and<br>Environmental Monitoring<br>Plan  | MMO report   | If VSP Logging takes place, reports from MMO will be issued following VSP operations.   | Potential for injury / hearing loss, alteration of behaviour, auditory masking, effects on zone of audibility   |
| PP-16 | MAE04;<br>MAE16                                     | Drilling of lower well<br>sections using synthetic<br>NADFs - ship to shore of<br>cuttings; MODU and<br>support / supply vessel /<br>helicopter transfer plant<br>operation resulting in air<br>emissions                    | Air quality; Climate change   | Sulphur content of marine fuel oil used onboard vessels will not exceed 0.5% by mass (unless vessels have scrubbers fitted) in line with MARPOL 2020 requirements (R).  | Drilling Contractor;<br>Supply Vessel<br>Contractor;                                     | Pollution Prevention and<br>Environmental Monitoring<br>Plan  | Sulphur content in fuel less<br>than 0.5% by mass                  | MGO certificate of quality required prior to each refuelling.   | Reduction in air quality; GHG emissions contribute to climate change  |
| PP-25 | MAE20;<br>MAS02                                     | Light spill from MODU;<br>MODU operations  | Seabirds; Fish; Cetaceans turtles and seals   | Light spill will be reduced by shielding lights and pointing lights directly at the work area (directional alignment).  | Drilling Contractor;<br>Supply Vessel<br>Contractor                                      | Pollution Prevention and<br>Environmental Monitoring<br>Plan  | N/A  | During rig visit by HSE department.   | Possible disorientation of seabirds; Attraction of planktonic organisms and subsequently fish and other large marine fauna; Disorientation of turtle hatchlings   |
| PP-26 | MAE20;<br>MAS02                                     | Light spill from MODU;<br>MODU operations  | Seabirds; Fish; Cetaceans turtles and seals   | intensity necessary to maintain worker safety.  | Drilling Contractor;<br>Supply Vessel<br>Contractor;                                     | Pollution Prevention and<br>Environmental Monitoring<br>Plan  | N/A  | During rig visit by HSE department.   | Possible disorientation of seabirds; Attraction of planktonic organisms and subsequently fish and other large marine fauna; Disorientation of turtle hatchlings   |
| PP-39 | OAS01;<br>OAS02                                     | Logistics base operation;<br>Transport of materials to /<br>from the logistics base<br>(vessel and vehicle activity)   | Public Health (Air Quality)   | Compliance with Lebanese maximum emission limits (Decision 8/1/2001) at the logistics base.   | TEP Liban; Logistics<br>Base Contractor;   | Pollution Prevention and<br>Environmental Monitoring<br>Plan  |  | Initial check at logistics base final set up. Every week for maintenance records.   | Reduction in air quality due to activities at Logistics Base inside the Port (air emissions/dust, vibration from machinery and noise), affecting nearby communities; Increase in ambient noise disturbing residential properties, businesses and leisure and recreation facilities in the vicinity of the logistics base; Decreased in air quality from transport emissions affecting human health; Disturbance from noise from transport activities causing disturbance and nuisance to human health   |
| PP-58 | MAE11   | Discharge of drainage<br>water (deck drainage, fire<br>water, bilge water and slop<br>water) from MODU and<br>support/supply vessels.  | Water quality; Plankton;<br>Nekton (fish)   | The MODU and support/supply vessels (more than 400 gross tonnage) will have an International Oil Pollution Prevention Certificate, will maintain an Oil Record Book, and will have an approved Shipboard Oil Pollution Emergency Plan (SOPEP) in accordance with MARPOL 73/78 Annex I (R).  | Supply Vessel  | Pollution Prevention and<br>Environmental Monitoring<br>Plan  |  | Certificates in place before mobilisation. Oil record book updates on a monthly basis.  | Reduction in water quality; Potential for impacts on plankton and fish  |

| UID    | ESIA<br>Section<br>Reference<br>s (Aspect<br>Codes) | Project Phases / Activity /<br>Aspect   | Receptors  | Mitigation   | Responsible Party<br>(for implementation)                      | etc)  | Performance Indicator/s   | Monitoring Frequency  | Impact/s to be Managed  |
|--------|---|---|--|--|--|---|---|---|---|
| PP-59  | MAE13   | Discharge of ballast from MODU and support / supply vessels   | Water quality; Plankton;<br>Nekton (fish)  | The MODU and support / supply vessels will have an onboard Ballast Water Management Plan, keep a record of all ballast water exchange operations in a Ballast Water Record Book, and have an International Ballast Water Management Certificate. | Drilling Contractor;<br>Supply Vessel<br>Contractor;           | Pollution Prevention and<br>Environmental Monitoring<br>Plan                                | Ballast Water Management<br>Plan/s; site verification zero<br>noncompliance.  | Monitored by bridge at each ballasting operation.   | Potential for introduction of non-native invasive species in ballast water, with knock-on effects to rest of marine ecosystem (secondary impacts)   |
| PP-61  | MAE16   | MODU and support / supply<br>vessel / helicopter transfer /<br>plant operation resulting in<br>air emissions  | Air quality; Climate change  | The MODU and support/supply vessels (more than 400 gross tonnage) will obtain an International Air Pollution Prevention Certificate in accordance with MARPOL 73/78 Annex VI   | Drilling Contractor;<br>Supply Vessel<br>Contractor;           | Pollution Prevention and<br>Environmental Monitoring<br>Plan                                | Certificate demonstrating compliance – International Air Pollution Certificate. Atmospheric emissions calculated empirically from fuel consumption. | Atmospheric emissions calculated emperically from fuel consumption records every month  | Reduction in air quality; GHG emissions contribute to climate change  |
| PP-20  | MAE04;<br>MAE16                                     | Drilling of lower well<br>sections using synthetic<br>NADFs - ship to shore of<br>cuttings; MODU and<br>support / supply vessel /<br>helicopter transfer plant<br>operation resulting in air<br>emissions | Air quality; Climate change  | Ozone depleting substances and all products listed in the Montreal Protocol - CFCs, HCFCs and Halons, will be prohibited except for essential use, under derogation (R).   | TEP Liban; Drilling<br>Contractor; Supply<br>Vessel Contractor | Pollution Prevention and<br>Environmental Monitoring<br>Plan; Contractors Scopes of<br>Work | List of identified products.  | Review of list of chemicals before operations.  | Reduction in air quality; GHG emissions contribute to climate change  |
| PP-15  | MAE04;<br>MAE16                                     | Drilling of lower well sections using synthetic NADFs - ship to shore of cuttings; MODU and support / supply vessel / helicopter transfer plant operation resulting in air emissions                      | Air quality; Climate change  | Atmospheric emissions on the MODU and support / supply vessels will be controlled in accordance with MARPOL 73/78 Annex VI (R).  | Drilling Contractor;<br>Supply Vessel<br>Contractor;           | Pollution Prevention and<br>Environmental Monitoring<br>Plan; Environmental<br>Management   | Certificate demonstrating compliance – International Air Pollution Certificate. Atmospheric emissions calculated empirically from fuel consumption. | Atmospheric emissions calculated empirically from fuel consumption records every month.   | Reduction in air quality; GHG emissions contribute to climate change  |
| PP-57  | MAE08   | Discharge of sanitary waste from MODU and support / supply vessels  | Nekton (fish)  | Both the MODU and support / supply vessels will have an International Sewage Pollution Prevention Certificate in line with MARPOL 73/78 Annex IV.  | Drilling Contractor;<br>Supply Vessel<br>Contractor            | Pollution Prevention and Monitoring Plan  | Available certificates for MODU & vessels   | Certificates in place before operations.  | Reduction in water quality; Potential for impacts on plankton and fish  |
| PP-19  | MAE04;<br>MAE16                                     | Drilling of lower well sections using synthetic NADFs - ship to shore of cuttings; MODU and support / supply vessel / helicopter transfer plant operation resulting in air emissions                      | Air quality; Climate change  | Supply vessels transfers to the MODU will be optimised and the support vessel will drift around the MODU to minimise engine use.   | Drilling Contractor;<br>Supply Vessel<br>Contractor;           | PSV Contract  | Site verification zero<br>noncompliance;<br>Fuel consumption  | Daily activity report;<br>Fuel consumption for PSV recorded daily and<br>reported to TEP Liban monthly                                    | Reduction in air quality; GHG emissions contribute to climate change  |
| SOC-12 | AE7   | Collision of third party ship<br>with MODU – release of<br>third party fuel inventory,<br>possible damage to MODU   | Water quality; Plankton;<br>Fish; Seabirds; Cetaceans,<br>turtles & seals; Sensitive<br>marine habitats (offshore);<br>Fisheries; Shipping   | A Notice to mariners (NAVAID / NAVAREA system) will be issued.   | TEP Liban; Supply<br>Vessel Contractor;                        | PSV Contract; As per Port<br>Authorities  |   | NTM on NAVAREA publication will checked prior to spud and updated if duration of the well increases. Issue of NTM responsibility of MoPWT | Damage to vessel; Reduction in water quality; Potential indirect impacts on plankton, fish, seabirds, cetacean, turtle and seals, marine habitats and fisheries   |
| MR-12  | AE4; AE6  | Riser rupture, release of<br>drilling fluid to sea; Blowout<br>– release of condensate<br>and gas   | Sediment quality / composition; Water quality; Benthos; Plankton; Fish; Fisheries; Air quality; Seabirds; Cetaceans, turtles & seals; Coastal habitats; Fisheries; Shipping; Tourism; Public Health; Social conditions; General economy / industry; Infrastructure; Archaeology and cultural resources | Rig acceptance audit will be carried out.  | TEP Liban; Drilling<br>Contractor;                             | Rig contract  | Zero noncompliance  | Once - rig acceptance performed prior to mobilisation.  | Reduction in water quality and sediment quality; Potential indirect impacts on benthos, fish and fisheries; Potential condensate spill impacts on plankton, fish, seabirds, cetaceans, turtles and seals and coastal habitats, fishing, shipping, tourism, infrastructure (water intakes), archaeological and cultural resources and therefore general economy / industry; Potential health impacts on coastal communities from spills reaching shore and possible consumption of contaminated fish; Transboundary impacts also predicted in offshore waters and shoreline of Syria |
| PP-10  | MAE13;<br>MAS02                                     | Discharge of ballast from<br>MODU and support / supply<br>vessels; MODU operations  | Water quality; Plankton;<br>Nekton (fish)  | MODU will carry out internal ballasting for a large proportion of its operations with no discharge of ballast to sea.  | Drilling Contractor;<br>Supply Vessel<br>Contractor;           | Rig Environmental Aspects and Impacts Register  | Specified and provided for in relevant management plan/s site verification zero noncompliance.  |   | Potential for introduction of non-native invasive species in ballast water, with knock-on effects to rest of marine ecosystem (secondary impacts)   |
| PP-11  | MAE13;<br>MAS02                                     | Discharge of ballast from<br>MODU and support / supply<br>vessels; MODU operations  | Water quality; Plankton;<br>Nekton (fish); Fisheries   | Any ballast water exchange will be carried out in compliance with the 'International Convention for the Control and Management of Ships' Ballast Water and Sediments 2014' (R).  | Drilling Contractor;<br>Supply Vessel<br>Contractor;           | Rig Environmental Aspects and Impacts Register  | Specified and provided for in relevant management plan/s site verification zero noncompliance.  | Monitored by bridge at each ballasting operation.   | Potential for introduction of non-native invasive species in ballast water, with knock-on effects to rest of marine ecosystem (secondary impacts); Potential for reduction in water quality from drilling and operational discharges to impact fisheries  |
| PP-12  | MAE13;<br>MAS02                                     | Discharge of ballast from<br>MODU and support / supply<br>vessels; MODU operations  | Water quality; Plankton;<br>Nekton (fish)  | Ballast water on drillship and support/supply vessels will be segregated and will not come into contact with oil and chemicals.  | Drilling Contractor;<br>Supply Vessel<br>Contractor;           | Rig Environmental Aspects and Impacts Register  | Specified and provided for in relevant management plan/s site verification zero noncompliance.  | Monitored at each fluid transfer.   | Potential for introduction of non-native invasive species in ballast water, with knock-on effects to rest of marine ecosystem (secondary impacts)   |

| UID   | ESIA<br>Section<br>Reference<br>s (Aspect<br>Codes) | Project Phases / Activity /<br>Aspect  | Receptors  | Mitigation   | Responsible Party<br>(for implementation)   | Project Documentation<br>(environmental and social<br>management plan,<br>standards, ESMP matrix,<br>etc)          | Performance Indicator/s   | Monitoring Frequency   | Impact/s to be Managed  |
|-------|---|--|--|--|---|--|---|--|---|
| PP-6  |   | Discharge of drainage<br>water (deck drainage, fire<br>water, bilge water and slop<br>water) from MODU and<br>support/supply vessels;<br>MODU operations | Water quality; Plankton;<br>Nekton (fish)  | Deck drainage (clean drains) will only be discharged to sea as long as no visible sheen is observable (sea surface monitored during discharge).  | Drilling Contractor;<br>Supply Vessel<br>Contractor                                       | Rig Environmental Aspects and Impacts Register   | Zero noncompliance  | Sheen monitoring twice daily throughout discharging operations.  | Reduction in water quality; Potential for impacts on plankton and fish  |
| PP-7  | MAS02   | Discharge of drainage<br>water (deck drainage, fire<br>water, bilge water and slop<br>water) from MODU and<br>support/supply vessels;<br>MODU operations | Water quality; Plankton;<br>Nekton (fish)  | Bilge water will be treated and discharged in accordance with MARPOL 73/78 Annex I, with discharge automatically stopped if effluent exceeds 15 ppm of oil (special area requirements for Mediterranean Sea, ships of >400 gross tonnage).   | Drilling Contractor;<br>Supply Vessel<br>Contractor                                       | Rig Environmental Aspects and Impacts Register   | 15ppm oil in water  | Continuous monitoring of wastewater from bilge and engine rooms to ensure compliance with MARPOL 73/78                         | Reduction in water quality; Potential for impacts on plankton and fish  |
| PP-8  | MAS02   | Discharge of drainage<br>water (deck drainage, fire<br>water, bilge water and slop<br>water) from MODU and<br>support/supply vessels;<br>MODU operations | Water quality; Plankton;<br>Nekton (fish)  | Slop water will be treated onboard the MODU in a slop treatment unit. The separated drilling fluids and slops will be sent to shore for treatment / disposal and the separated water discharged to sea providing the oil in water content does not exceed 15 ppm.                      | Drilling Contractor;<br>Supply Vessel<br>Contractor                                       | Rig Environmental Aspects and Impacts Register   | 15ppm oil in water  | Monitoring of oil in water content before each discharge.  | Reduction in water quality; Potential for impacts on plankton and fish  |
| PP-9  |   | Uplift and discharge of cooling water from MODU; MODU operations   |  | Discharge of cooling water will comply with allowable limits in Decision No. 8/1/2001 (maximum temperature of wastewater discharge to sea 35 °C) and TOTAL / World Bank requirement that temperature increase shall not exceed a maximum of 3 °C, 100 m away from the discharge point. | Drilling Contractor   | Rig Environmental Aspects and Impacts Register   | 35°C maximum water temperature  | Daily mechanical rounds  | Reduction in water quality / temperature effects; Potential for indirect impacts on plankton and fish; Direct impacts to plankton and fish from entrainment during uplift   |
| PP-13 | MAS02   | Discharge of drainage<br>water (deck drainage, fire<br>water, bilge water and slop<br>water) from MODU and<br>support/supply vessels;<br>MODU operations | Fisheries  | All operational discharges from MODU will be in accordance with the requirements of MARPOL 73/78 (R).  | Drilling Contractor;<br>Supply Vessel<br>Contractor;                                      | Rig Environmental Aspects<br>and Impacts Register;<br>Pollution Prevention and<br>Environmental Monitoring<br>Plan | Available certificates for<br>MODU & vessels<br>Compliance/Non-<br>Compliance   | Certificates in place before operations. Sheen monitoring undertaken twice daily during discharges.                            | Potential for reduction in water quality from drilling and operational discharges to impact fisheries   |
| PP-52 | AE8; AE10   |  | Air quality; Climate change;<br>Water quality; Plankton;<br>Fish; Seabirds; Cetaceans,<br>turtles & seals; Sensitive<br>marine habitats (offshore);<br>Coastal habitats; Fisheries;<br>Shipping; Tourism; Public<br>health; Social conditions;<br>General economy / industry;<br>Infrastructure;<br>Archaeological and cultural<br>resources | Planned, preventive maintenance as per manufacturer's recommendation will be mandatory for all equipment.  | TEP Liban; Drilling<br>Contractor; Logistics<br>Base Contractor;<br>Helicopter Contractor | Rig Maintenance Manual;<br>Scope of Work   | N/A (for logistics base operation) % of non-compliance with manufacturer's recommended maintenance schedule. (for MODU and vessels) | Documentation check prior to spud, other checks as per manufacturer's recommendations throughout the duration of the operation | Reduction in air quality due to activities at Logistics Base inside the Port (air emissions/dust, vibration from machinery and noise), affecting nearby communities; Increase in ambient noise disturbing residential properties, businesses and leisure and recreation facilities in the vicinity of the logistics base; Decreased in air quality from transport emissions affecting human health; Disturbance from noise from transport activities causing disturbance and nuisance to human health; Reduction in water quality; Potential indirect effects on plankton           |
| MR-10 |   | Riser rupture, release of drilling fluid to sea  | Sediment quality /<br>composition; Water quality;<br>Benthos; Plankton; Fish;<br>Fisheries   | Riser fatigue analysis will be carried out and riser joints fully inspected and changed if necessary.  | Drilling Contractor   | Riser Analysis   | Specified and provided for in relevant management plan/s; site verification zero noncompliance.                                     |  | Reduction in water quality and sediment quality; Potential indirect impacts on benthos, fish and fisheries  |
| MR-11 |   | Riser rupture, release of<br>drilling fluid to sea; Loss of<br>rig stability (rig capsize)<br>with release of fuel<br>inventory                          | Sediment quality / composition; Water quality; Benthos; Plankton; Fish; Seabirds; Cetaceans, turtles & seals; Sensitive marine habitats (offshore); Coastal habitats; Fisheries; Shipping; Tourism; Public health; Social conditions; General economy / industry; Infrastructure; Archaeological and cultural resources                      | Daily metocean and weather forecast will be assessed during operations.  | Drilling Contractor   | Riser Analysis   | Specified and provided for in relevant management plan/s; site verification zero noncompliance.                                     | Site verification every day.   | Reduction in water quality and sediment quality; Potential indirect impacts on benthos, fish and fisheries; Potential condensate spill impacts on plankton, fish, seabirds, cetaceans, turtles and seals and coastal habitats, fishing, shipping, tourism, infrastructure (water intakes), archaeological and cultural resources and therefore general economy / industry; Potential health impacts on coastal communities from spills reaching shore and possible consumption of contaminated fish; Transboundary impacts also predicted in offshore waters and shoreline of Syria |
| PL-2  |   | Riser rupture, release of drilling fluid to sea  | Sediment quality /<br>composition; Water quality;<br>Benthos; Plankton; Fish;<br>Fisheries   | Upfront analysis of metocean data will be carried out in order to adapt riser equipment.   | Drilling Contractor   | Riser Analysis   |   |  | Reduction in sediment and water quality; Potential indirect impacts on benthos, plankton, fish and fisheries  |

| UID    | ESIA<br>Section<br>Reference<br>s (Aspect<br>Codes) | Project Phases / Activity /<br>Aspect   | Receptors  | Mitigation  | Responsible Party<br>(for implementation) | Project Documentation<br>(environmental and social<br>management plan,<br>standards, ESMP matrix,<br>etc) | Performance Indicator/s   | Monitoring Frequency   | Impact/s to be Managed  |
|--------|---|---|--|---|---|---|---|--|---|
| TR-2   | AE5   | column during riserless operations  | Air quality; Water quality;<br>Sediment quality /<br>composition; Benthos;<br>Plankton; Fish; Fisheries;<br>Shipping   | Shallow gas procedures will be known and practised, and shallow gas drills will be conducted.   | TEP Liban; Drilling<br>Contractor         | Riser Analysis; Company<br>Rules  |   |  | Reduction in air quality, water quality and sediment quality; Potential indirect impacts on benthos, fish and fisheries; Potential for gas in water column to affect shipping   |
| TR-8   | AE4   | · ·   | Sediment quality /<br>composition; Water quality;<br>Benthos; Plankton; Fish;<br>Fisheries   | Loss of MODU position trials will be carried out along with endurance tests   | TEP Liban; Drilling<br>Contractor         | Riser Analysis; DP Trials   |   | Crew training records checked prior to operations start up. Loss of position drills reported in daily drilling report. | Reduction in water quality and sediment quality; Potential indirect impacts on benthos, plankton, fish and fisheries  |
| PP-45  |   | · ·   | Sediment quality /<br>composition; Water quality;<br>Benthos; Plankton; Fish;<br>Fisheries   | BOP auto shear function will be in place in order to reduce volume of drilling fluids released from the well during an accidental event.  | TEP Liban; Drilling<br>Contractor         | Riser Analysis; Drilling<br>Program; Company Rules  |   | Verified during BOP certification. Surface test during acceptance. Constant function availability monitoring.          | Reduction in water quality and sediment quality; Potential indirect effects on benthos, plankton, fish and fisheries  |
| PP-46  | AE4   | · ·   | Sediment quality /<br>composition; Water quality;<br>Benthos; Plankton; Fish;<br>Fisheries   | Riser emergency disconnect sequence will be tested.   | TEP Liban; Drilling<br>Contractor         | Riser Analysis; Drilling<br>Program; Company Rules  | N/A   | Once during acceptance test. Constant function availability monitoring during riser activities.                        | Reduction in water quality and sediment quality; Potential indirect effects on benthos, plankton, fish and fisheries  |
| HSS-14 | AE10  | ,   | Water quality; Plankton;<br>Fish; Seabirds; Cetaceans,<br>turtles & seals; Sensitive<br>marine habitats (offshore);<br>Coastal habitats; Fisheries;<br>Shipping; Tourism; Public<br>health; Social conditions;<br>General economy / industry;<br>Infrastructure;<br>Archaeological and cultural<br>resources | MODU will only operate within weather limit.  | TEP Liban; Drilling<br>Contractor;        | Riser Analysis; Rig<br>Specifications; Bridging<br>Document   | Specified and provided for in relevant management plan/s; site verification zero noncompliance. |  | Potential condensate spill impacts on plankton, fish, seabirds, cetaceans, turtles and seals and coastal habitats, fishing, shipping, tourism, infrastructure (water intakes), archaeological and cultural resources and therefore general economy / industry; Potential health impacts on coastal communities from spills reaching shore and possible consumption of contaminated fish; Transboundary impacts also predicted in offshore waters and shoreline of Syria |
| HSS-8  | AE7   |   | Water quality; Plankton;<br>Fish; Seabirds; Cetaceans,<br>turtles & seals; Sensitive<br>marine habitats (offshore);<br>Fisheries; Shipping   | Support vessel will be at well site providing security and safety (fire fighting, etc) and will alert any vessels on a collision course.  | TEP Liban; Supply<br>Vessel Contractor    | Scope of Work   | Specified and provided for in relevant management plan/s; site verification zero noncompliance. | On daily basis when PSV are in vicinity of the MODU  | Damage to vessel; Reduction in water quality; Potential indirect impacts on plankton, fish, seabirds, cetacean, turtle and seals, marine habitats and fisheries   |
| HSS-9  | AE7   | third party fuel inventory, possible damage to MODU   | Water quality; Plankton;<br>Fish; Seabirds; Cetaceans,<br>turtles & seals; Sensitive<br>marine habitats (offshore);<br>Fisheries; Shipping   | There will be 24/7 radio communications and watches.  | TEP Liban; Supply<br>Vessel Contractor    | Scope of Work   | Specified and provided for in relevant management plan/s; site verification zero noncompliance. | On daily basis when PSV are in vicinity of the MODU  | Damage to vessel; Reduction in water quality; Potential indirect impacts on plankton, fish, seabirds, cetacean, turtle and seals, marine habitats and fisheries   |
| PE-2   | MAE22   | Logging using radioactive<br>sealed sources (also<br>applicable to onshore<br>storage and transport of<br>radioactive sealed sources) | None under normal<br>operations  | A permit will be obtained by the Contractor for the import, storage, use and export of radioactive materials from the Lebanese Atomic Energy Commission, a department of the Ministry of Public Health. | Drilling and Acquisition<br>Contractor    | Scope of Work   | Specified and provided for in relevant management plan/s; site verification zero noncompliance. | Licenses/permit obtained by said CONTRACTOR to be submitted to COMPANY upon receipt.                                   | None under normal operations  |
| CM-1   | MAE02;<br>MAE03;<br>MAS02                           | Drilling of lower well  | Seabed quality /<br>composition; Benthos;<br>Sensitive seabed habitats;<br>Nekton (fish); Water quality;<br>Plankton; Cetaceans, turtles<br>and seals; Fisheries   | i.e. mercury <1 mg/kg and cadmium <3 mg/kg dry weight (total).  | TEP Liban; Drilling<br>Fluids Contractor  | Scope of Work; Chemical<br>Management Procedure   | % of non-compliance   |  | Burial or smothering of benthic communities; Oxygen depletion in sediments; Changes to sediment structure and quality; Changes to water quality; Potential for toxicity or bioaccumulation effects; Potential for indirect effects on plankton, fish and sensitive seabed habitats; Potential for reduction in water quality from drilling and operational discharges to impact fisheries;  |
| RA-1   | AE3   | Radioactive source lost in hole   | Sediment quality / composition   | Logging operations carried out by a certified team.   | Drilling and Acquisition<br>Contractor    | Scope of Work; Company<br>Rules; Contractor Standards   | All operators with certified training   | Training / competency records provided for logging team ahead of logging operations.                                   | Potential radiation impact on sediments and geology   |
| RA-2   | AE3   | Radioactive source lost in hole   | Sediment quality / composition   | Best efforts will be made to retrieve the source – fishing equipment will be available on site. Failing this, section where radioactive source lost will be cemented up.                                | Drilling and Acquisition<br>Contractor    | Scope of Work; Company<br>Rules; Contractor Standards   | Evaluation decision documents.  | Once prior decision execution  | Potential radiation impact on sediments and geology   |

| UID    | ESIA<br>Section<br>Reference<br>s (Aspect<br>Codes) | Project Phases / Activity /<br>Aspect   | Receptors   | Mitigation  | Responsible Party (for implementation)  | Project Documentation<br>(environmental and social<br>management plan,<br>standards, ESMP matrix,<br>etc) | Performance Indicator/s   | Monitoring Frequency   | Impact/s to be Managed  |
|--------|---|---|---|---|---|---|---|--|---|
| CM-2   | MAE05;<br>MAS02;<br>AE2; AE4;<br>AE9; AE12.         | Drilling of riserless top hole sections - discharge of cuttings and WBDFs; Drilling of lower well sections using HPWBDF - discharge of cuttings and fluids; Cementing discharges during drilling; MODU operations; Loss of chemical containment onboard MODU; Riser rupture, release of drilling fluid to sea; Loss of containment during offshore materials transfer to MODU – release of drilling fluids or marine diesel to sea; Loss of containment during materials transfer to supply vessels at logistics base quay side – release of drilling fluids / diesel to sea. | Sediment quality / composition; Water quality; Benthos; Plankton; Fish; Fisheries; Seabed quality / composition; Benthos; Fisheries | Majority of chemicals proposed are HQ Band Gold; OCNS Group E; or PLONOR and; have characteristics of: lowest toxicity, lowest bioaccumulation potential and highest biodegradation. The only exception is BORE-HIB (OCNS Group D) which is used in small quantities.   | TEP Liban; Drilling Contractor; Supply Vessel Contractor; Logistics Base Contractor; Fluids Contractor; Drilling and Acquisition Contractor | Scope of Work; Contracts;<br>Chemicals Management<br>Plan; Company Rules                                  | Specified and provided for in relevant management plan/s; site verification zero noncompliance        |  | Burial or smothering of benthic communities; Oxygen depletion in sediments; Changes to sediment structure and quality; Changes to water quality; Potential for toxicity or bioaccumulation effects; Potential for indirect effects on benthos, plankton, fish and sensitive seabed habitats, and fisheries; Cement may smother seabed and change its Ph; Potential for toxicity or bioaccumulation effects; Potential for reduction in water quality from drilling and operational discharges to impact fisheries; Reduction in water quality within the port; Disruption of access to water for sailing club vessels during any clean-up |
| PP-63  | MAE10   | Desalination unit<br>discharges from MODU   | Water quality; Plankton;<br>Nekton (fish)   | Anti-scaling chemical will be an environmentally sound all-organic product based on biodegradable compounds.  | Drilling Contractor   | Scope of Work; Contracts;<br>Chemicals Management<br>Plan; Company Rules                                  | Zero noncompliance  | Once before operations.  | Reduction in water quality; Potential for impacts on plankton and fish  |
| PP-64  |   | Uplift and discharge of cooling water from MODU   | Nekton (fish)   | No discharge of antifouling chemicals in cooling water, a marine growth prevention system (MGPS) will be used.  | Drilling Contractor   | Scope of Work; Contracts;<br>Chemicals Management<br>Plan; Company Rules                                  | Zero noncompliance  | Prior to operations.   | Reduction in water quality / temperature effects; Potential for indirect impacts on plankton and fish   |
| PP-17  |   | Drilling of lower well<br>sections using synthetic<br>NADFs - ship to shore of<br>cuttings; MODU and<br>support / supply vessel /<br>helicopter transfer plant<br>operation resulting in air<br>emissions   | Air quality; Climate change   | All machinery, equipment and installations will comply with generally accepted standards in the international petroleum industry, will be of proper construction, and kept in good working order.   | Drilling Contractor;<br>Supply Vessel<br>Contractor;  | Scope of Work;<br>Environmental Management  | Zero noncompliance  | Review of equipment against relevant standards prior to spud / use; review of maintenance schedule against manufacturer's recommended maintenance; verification of maintenance activity as per schedule.       | Reduction in air quality; GHG emissions contribute to climate change  |
| CH-1   | MAS02   | MODU operations   | Archaeological and cultural resources   | Avoid existing known cultural heritage and archaeological sites and comply with their protection regimes according to regulatory requirements (Antiquities System Decision 166/1933 and Cultural properties Law 37/2008   | TEP Liban;  | Social Management Plan  | Specified and provided for in<br>relevant management plan;<br>site verification zero<br>noncompliance | Site survey will be performed in sufficient time ahead of anchoring such that anchor plan can be established, and spud location confirmed that avoid cultural heritage sites. Already completed for well B4-1. | Potential for physical disturbance of unknown marine archaeological resources during well spud (at all 3 possible well locations).  |
| HSS-15 |   | MODU mobilisation,<br>installation, plug and<br>abandonment and<br>demobilisation   | Shipping  | Ensure sea users are aware of drilling programme activities and presence of safety zone during mobilisation and demobilisation through a Notice to Mariners (The schedule of activities will be communicated to the Ministry of Public Works and Transport and the Lebanese Navy via the Lebanese Armed Forces (LAF) that issues information and instructions to mariners pertaining to shipping hazards and safety zones). | TEP Liban;  | Social Management Plan  | Specified and provided for in relevant management plan/s; site verification zero noncompliance.       | Notice to Mariners issued before spud  | Disruption to sea users – mainly tankers, cargo ships and container ships - due to diversion to avoid 500 m safety zone   |
| SCM-1  | OAS01   | Logistics base operation  | General economy<br>(employment and service<br>provision)  | Contractors will be encouraged to consider the use of local labour and to advertise any Project related vacancies locally.  | TEP Liban; Logistics<br>Base Contractor   | Social Management Plan  | Effective messaging with regard to employment and training opportunities.                             | Local content report post activity delivered to relevant authorities.  | Potential for positive impacts on the employment of a local workforce (opportunities are limited at this exploration phase); Opportunities in terms of provision of service   |
| SCM-2  | OAS01   | Logistics base operation  | General economy<br>(employment and service<br>provision)  | Preferential treatment will be given to the procurement of Lebanese originating goods and services; PAR Article 157 right holder shall ensure that operator gives preferential treatment to the procurement of Lebanese originating goods and services when such goods and services are internationally competitive with respect to quality, availability, price and performance.   | TEP Liban; Logistics<br>Base Contractor   | Social Management Plan  | Effective messaging with regard to procurement opportunities.   | Mention in the contract: monitoring during audits.   | Potential for positive impacts on the employment of a local workforce (opportunities are limited at this exploration phase); Opportunities in terms of provision of service   |
| SCM-3  | OAS01   | Logistics base operation  | Education and Training  | PAR Article 155 the right holder and contractor shall give priority to training of Lebanese in order to facilitate the employment of Lebanese at all level or right holders/contractor's organisation.  | TEP Liban; Logistics<br>Base Contractor   | Social Management Plan  | Effective messaging with regard to employment and training opportunities.                             | Mention in the contract: monitoring during audits.   | Potential for positive impacts on skills development for the local workforce  |

| UID    | ESIA<br>Section<br>Reference<br>s (Aspect<br>Codes) | Project Phases / Activity /<br>Aspect   | Receptors   | Mitigation  | Responsible Party<br>(for implementation)     | Project Documentation<br>(environmental and social<br>management plan,<br>standards, ESMP matrix,<br>etc) | Performance Indicator/s  | Monitoring Frequency   | Impact/s to be Managed   |
|--------|---|---|---|---|---|---|--|--|--|
| SOC-1  | OAE03;<br>MAS01;<br>OAS01;<br>OAS02                 | (vessel and vehicle activity)   | Fisheries; Public Health;<br>Social Conditions (Road<br>safety and congestion);<br>Infrastructure (Road<br>network)   | Project will implement a grievance mechanism; the grievance mechanism will be clearly communicated to relevant stakeholders.  | TEP Liban; Logistics<br>Base Contractor       | Social Management Plan  | Grievance mechanism; effective messaging.  |  | Potential disruption to fisheries as fishing will not be allowed within 500 m of the safety zone around drillship for security reasons; Decreased in air quality from transport emissions affecting human health; Disturbance from noise from transport activities causing disturbance and nuisance to human health; Increase in traffic on the road network due to transportation of supplies, materials and personnel to and from logistics base inside the Port of Lebanon; Potential deterioration and damage to existing road infrastructure from increased traffic |
| SOC-11 | AE6   | v   | Air quality; Water quality;<br>Plankton; Fish; Seabirds;<br>Cetaceans, turtles & seals;<br>Coastal habitats; Fisheries;<br>Shipping; Tourism;<br>Public Health; Social<br>conditions; General<br>economy / industry;<br>Infrastructure; Archaeology<br>and cultural resources | Sensitive coastal areas will be protected as a priority in line with coastal sensitivity mapping in TEP Liban's OSCP and mapping in the NOSCP.  | TEP Liban; Drilling<br>Contractor;            | Social Management Plan  | Specified and provided for in relevant management plan/s; site verification zero noncompliance                                   |  | Potential condensate spill impacts on plankton, fish, seabirds, cetaceans, turtles and seals and coastal habitats, fishing, shipping, tourism, infrastructure (water intakes), archaeological and cultural resources and therefore general economy / industry; Potential health impacts on coastal communities from spills reaching shore and possible consumption of contaminated fish; Transboundary impacts also predicted in offshore waters and shoreline of Syria  |
| SOC-3  | MAS01;<br>MAS02                                     | MODU mobilisation,<br>installation, plug and<br>abandonment and<br>demobilisation; MODU<br>operations   | Shipping  | Adherence to existing shipping corridors with known buffer zones and standard operating procedures as stipulated in UNCLOS.   | TEP Liban; Port<br>Authorities                | Social Management Plan; As per Port Authorities   | Specified and provided for in relevant management plan/s; site verification zero noncompliance.                                  | Information reviewed on a per trip basis.  | Disruption to sea users – mainly tankers, cargo ships and container ships - due to diversion to avoid 500 m safety zone  |
| SOC-2  | OAE06;<br>OAS03                                     | Helicopter transfers to<br>Beirut International Airport;<br>Support activities<br>(Helicopter transfer) | Sensitive coastal habitats;<br>Terrestrial ecology;<br>Seabirds; Tourism  | Avoidance of low flight directly over internationally recognised and proposed conservation areas and over local communities and popular beaches, in the vicinity of the airport, if safe and practical to do so (subject to Lebanese Air Force approval). | Helicopter Contractor;<br>RHIA                | Social Management Plan;<br>Helicopter Contract  | Zero noncompliance with flight plan.   | Air Forces.  | Airborne noise may disturb fauna (IBA, KBA and MPA in close proximity to airport); Increase in airborne noise disturbing local holidaymakers if passing near hotels or other noise sensitive businesses  |
| SOC-9  | OAE06;<br>OAS03                                     |   | Sensitive coastal habitats;<br>Terrestrial ecology;<br>Seabirds; Infrastructure (air<br>traffic)  | A flight plan will be developed and agreed with the Lebanese aviation authorities.  | TEP Liban; Logistics<br>Base Contractor; RHIA | Social Management Plan;<br>Helicopter Contract  | Zero noncompliance with flight plan.   | Not Applicable as Route provided by Lebanese<br>Air Forces.  | Potential burden on existing flight control facilities; Airborne noise may disturb fauna (IBA, KBA and MPA in close proximity to airport)  |
| HSS-1  | OAS02   | Transport of materials to /<br>from the logistics base<br>(vessel and vehicle activity)                 | Social Conditions (Road safety and congestion)  | Speed restrictions will always be adhered to, these will be defined in a driving and transportation policy. Speed limits around Logistics Base will be 20 km/hour.  | TEP Liban; Logistics<br>Base Contractor;      | Social Management Plan;<br>Logistics Base Contract  | records; zero traffic infringements.   | Inside the base: road sign at base entrance. Outside the base: under Port authorities responsibility. At sea random checks of vessel speed by use of AIS | Increase in traffic on the road network due to transportation of supplies, materials and personnel to and from logistics base inside the Port of Lebanon   |
| HSS-2  | OAS02   |   | Infrastructure (Road<br>network)  | A vehicle movement plan will be developed and implemented at the logistics base   | TEP Liban; Logistics<br>Base Contractor;      | Social Management Plan;<br>Logistics Base Contract  | Enforcement activity; zero traffic infringements.  |  | Increase in traffic on the road network due to transportation of supplies, materials and personnel to and from logistics base inside the Port of Lebanon; Potential deterioration and damage to existing road infrastructure from increased traffic  |
| HSS-3  | OAS02   | Transport of materials to / from the logistics base (vessel and vehicle activity)                       | Infrastructure (Road network)   | Contractor shall comply with driving and transportation policy requirements under the contract including speed limits and slow speeds when crossing villages etc.   | TEP Liban; Logistics<br>Base Contractor;      | Social Management Plan;<br>Logistics Base Contract  | Enforcement activity; zero traffic infringements.  | Inside the base: road sign at base entrance. Outside the base: under Port authorities responsability. At sea random checks of vessel speed by use of AIS | Potential deterioration and damage to existing road infrastructure from increased traffic  |
| SOC-13 | OAS02   | Transport of materials to /<br>from the logistics base<br>(vessel and vehicle activity)                 | Infrastructure (Road<br>network)  | Contractors are responsible for protecting infrastructure and reinstating damages if caused by their activities.  | TEP Liban; Logistics<br>Base Contractor;      | Social Management Plan;<br>Logistics Base Contractor<br>Contract with Port of Beirut                      |  | drilling of claims / grievances  | Presence of the project could create additional pressure on existing Port's infrastructure including competition for existing facilities and space inside the Port; Potential deterioration and damage to existing road infrastructure from increased traffic  |
| SOC-8  | OAS01   | Logistics base operation  | Infrastructure (Port of Beirut)   | Logistics base contractor will be required to comply with the Port's operational limits and Operator's HSE requirements.  | TEP Liban; Logistics<br>Base Contractor;      | Social Management Plan;<br>Logistics Base Contractor<br>Contract with Port of Beirut                      | Specified and provided for<br>(operational limits) in<br>relevant management plan/s;<br>site verification zero<br>noncompliance. |  | Presence of the project could create additional pressure on existing Port's infrastructure including competition for existing facilities and space inside the Port   |
| SOC-5  | MAS01   | MODU mobilisation,<br>installation, plug and<br>abandonment and<br>demobilisation                       | Fisheries   | Operators will submit Safety Zone Authorisation to the authorities for approval prior to drilling activities.   | TEP Liban;                                    | Social Management Plan;<br>Stakeholder Engagement<br>Plan   | Approval of Safety Zone<br>Authorisation   | Prior to spud  | Disruption to sea users – mainly tankers, cargo ships and container ships - due to diversion to avoid 500 m safety zone  |

| UID    | ESIA<br>Section<br>Reference<br>s (Aspect<br>Codes) | Project Phases / Activity /<br>Aspect  | Receptors  | Mitigation  | Responsible Party<br>(for implementation)   | Project Documentation<br>(environmental and social<br>management plan,<br>standards, ESMP matrix,<br>etc) | Performance Indicator/s   | Monitoring Frequency   | Impact/s to be Managed  |
|--------|---|--|--|---|---|---|---|--|---|
| PP-51  | AE9; AE12   | drilling fluids or marine diesel to sea  | Water quality; Plankton;<br>Nekton (fish); Tourism -<br>logistics base located close<br>to yachting club; Cetaceans<br>turtles and seals; Sediment<br>quality / composition;<br>Benthos; Fisheries | Plan (SOPEP) in line with MARPOL requirements.  | Drilling Contractor;<br>Supply Vessel<br>Contractor                               | SOPEP (Shipboard Oil<br>Pollution Emergency Plan);<br>Scope of Work                                       | Specified and provided for in relevant management plan/s; site verification zero noncompliance        | SOPEPs collected from PSVs.  | Reduction in water quality and sediment quality; Potential indirect effects on benthos, plankton, fish and fisheries; Disruption of access to water for sailing club vessels during any clean-up  |
| MR-19  | AE7   | Collision of third party ship<br>with MODU – release of<br>third party fuel inventory,<br>possible damage to MODU<br>and riser | Water quality; Plankton;<br>Fish; Seabirds; Cetaceans,<br>turtles & seals; Sensitive<br>marine habitats (offshore);<br>Fisheries; Shipping   | MODU position and 500 m exclusion zone will be notified to the authorities.   | TEP Liban; Supply<br>Vessel Contractor;   | Stakeholder Engagement<br>Plan  | Specified and provided for in<br>relevant management plan;<br>site verification zero<br>noncompliance | Check before spudding well that NTM actually released.   | Damage to vessel; Reduction in water quality; Potential indirect impacts on plankton, fish, seabirds, cetacean, turtle and seals, marine habitats and fisheries   |
| SOC-6  | MAS01   | MODU mobilisation,<br>installation, plug and<br>abandonment and<br>demobilisation  | Fisheries  | Operators shall inform fishermen through the fisheries associations about well plan approvals to ensure well location avoidance. Discussions will be initiated approximately 1 month before planned commencement of drilling in case extensive fishing area is impacted.  | TEP Liban   | Stakeholder Engagement<br>Plan  | Meeting reports   | month before spud. Ongoing liaison with<br>fishermen during drilling regarding<br>understanding of grievance mechanism                             | Potential disruption to fisheries as fishing will not be allowed within 500 m of the safety zone around drillship for security reasons; Decreased in air quality from transport emissions affecting human health; Disturbance from noise from transport activities. |
| SOC-4  | MAS01;<br>MAS02                                     | MODU mobilisation,<br>installation, plug and<br>abandonment and<br>demobilisation; MODU<br>operations                          | Shipping   | Ensure sea users are aware of drilling programme activities and presence of safety zone during mobilisation and demobilisation through a Notice to Mariners (The schedule of activities will be communicated to the Ministry of Public Works and Transport and the Lebanese Navy via the Lebanese Armed Forces (LAF) that issues information and instructions to mariners pertaining to shipping hazards and safety zones). | TEP Liban;  | Stakeholder Engagement<br>Plan; As per Port Authorities   | Stakeholders informed of drilling operations including vessel movements.                              | NTM on NAVAREA publication will checked prior to spud and updated if duration of the well increases. Issue of NTM responsibility of MoPWT          | Disruption to sea users – mainly tankers, cargo ships and container ships - due to diversion to avoid 500 m safety zone   |
| SOC-14 | MAS04   | Public health and safety<br>(people working in<br>immediate vicinity of the<br>MODU).  |  | One support vessel will be permanently at the drill site providing security and safety duties, alerting other non-project sea users about 500 m safety zone.  | PSV Contractor  | Supply Vessel Contract  |   | NTM on NAVAREA publication will checked<br>prior to spud and updated if duration of the well<br>increases. Issue of NTM responsibility of<br>MoPWT | Disruption to sea users – mainly tankers, cargo ships and container ships - due to diversion to avoid 500 m safety zone   |
| PP-4   | MAE06;<br>MAS02                                     | Pipe dope discharges<br>during drilling; MODU<br>operations  | Water quality; Plankton;<br>Nekton (fish)  | A pipe dope product that is heavy metal free will be selected for the drilling operations.  | TEP Liban; TRS<br>Contractor  | TRS Contract & Scope of Work  | Zero noncompliance  | Review of supply chain documentation for pipe dope.  | Localised reduction in water quality; Potential for indirect effects on plankton and fish   |
| MR-7   | OAE04   | Logistics base operation – waste management  | None providing waste managed properly  | Waste Transfer Notes signed by all parties will be sent to TEP Liban by logistics base contractor and copies retained on site.  | Logistics Base<br>Contractor;   | Waste Management ;<br>Logistics Base Contract   | Specified and provided for in relevant management plan/s; site verification zero noncompliance.       | Checks for each waste transit operation.   | None under normal operations  |
| PP-14  | MAE15   | Operation of incinerator onboard MODU  | Air quality; Climate change  | Any onboard incineration will be carried out in compliance with the requirements of MARPOL 73/78 Annex XI Chapter 3, regulation 16 – Shipboard Incineration (R). There will be no incinerator onboard the MODU for well B4-1. If future exploration / appraisal wells are drilled using a MODU with onboard incinerator TEP Liban will inform the MoE for environmental clearance.  | Drilling Contractor;<br>Supply Vessel<br>Contractor;                              | Waste Management Plan   |   | Monitoring operational discharge activity records. Site verification weekly during incineration activity.  | Reduction in air quality; GHG emissions contribute to climate change  |
| WM-10  | MAE14   | Generation of solid waste<br>on MODU and support /<br>supply vessels   | None providing waste managed properly  |   | Drilling Contractor;<br>Supply Vessel<br>Contractor; Logistics<br>Base Contractor | Waste Management Plan   | Specified and provided for in relevant management plan/s; site verification zero noncompliance.       | Monitored daily  | None under normal operations  |
| WM-12  | MAE14   | Generation of solid waste on MODU and support / supply vessels   | None providing waste managed properly  | For hazardous waste, containers will be chemically resistant to the contained product and may be sealed to reduce risks.  | Drilling Contractor;<br>Supply Vessel<br>Contractor;                              | Waste Management Plan   | 1 .   | Containers to be checked prior to spud and when empty/new skips come into service  | None under normal operations  |
| WM-14  | MAE14   | Generation of solid waste<br>on MODU and support /<br>supply vessels   | None providing waste managed properly  | the waste management process.   | Drilling Contractor;<br>Supply Vessel<br>Contractor; Logistics<br>Base Contractor | Waste Management Plan   |   | Monitoring at each step of the activity: transport, storage and disposal.  | None under normal operations  |
| WM-15  | MAE14   | Generation of solid waste on MODU and support / supply vessels   | None providing waste managed properly  | A Waste Management Plan will be developed by TEP Liban and implemented by its contractors.  | TEP Liban; Drilling<br>Contractor; Supply<br>Vessel Contractor                    | Waste Management Plan   | Waste management plan.  | Prior to spud  | None under normal operations  |

| UID   | ESIA<br>Section<br>Reference<br>s (Aspect<br>Codes) | Project Phases / Activity /<br>Aspect   | Receptors                                 | Mitigation  | Responsible Party<br>(for implementation)   | Project Documentation<br>(environmental and social<br>management plan,<br>standards, ESMP matrix,<br>etc) | Performance Indicator/s   | Monitoring Frequency  | Impact/s to be Managed  |
|-------|---|---|---|---|---|---|---|---|---|
| WM-18 | MAE11   | Discharge of drainage<br>water (deck drainage, fire<br>water, bilge water and slop<br>water) from MODU and<br>support/supply vessels. | Water quality; Plankton;<br>Nekton (fish) | Oily waste and sludge from separation processes will be transported to shore for treatment and disposal.  | Drilling Contractor;<br>Supply Vessel<br>Contractor;                              | Waste Management Plan   | Specified and provided for in relevant management plan/s; site verification zero noncompliance. | Monitored daily, reported in monthly report   | Reduction in water quality; Potential for impacts on plankton and fish  |
| WM-19 | OAE04;<br>MAE14                                     | Logistics base operation –<br>waste management;<br>Generation of solid waste<br>on MODU and support /<br>supply vessels               | None providing waste managed properly     | Sorting of solid waste will be compliant with applicable national regulations in force.   | Drilling Contractor;<br>Logistics Base<br>Contractor;                             | Waste Management Plan   |   | Site verification of effective waste segregation.  Daily during logistics base operation.           | None under normal operations  |
| WM-7  | MAE09   | Discharge of food waste<br>from MODU and support /<br>supply vessels (in the case<br>of B4-1 well no discharge)                       | Water quality; Plankton;<br>Nekton (fish) | Discharge of any food waste from the MODU and support/supply vessels will only be carried out more than 12 nm from the nearest land and all food waste will be ground up in order to pass through a 25 mm mesh before discharge, in line with MARPOL 73/78 Annex V (Mediterranean Sea 'special area' requirement).  | Drilling Contractor;<br>Supply Vessel<br>Contractor                               | Waste Management Plan   | Garbage record book data  | Recorded for each discharge, inspected biweekly   | Reduction in water quality; Potential for indirect effects on plankton and fish                                     |
| WM-8  | MAE09   | Discharge of food waste<br>from MODU and support /<br>supply vessels (in the case<br>of B4-1 well no discharge)                       | Water quality; Plankton;<br>Nekton (fish) | Any discharges of food waste into the sea will be recorded in the Garbage Record Book of the MODU (MARPOL Annex V).   | Drilling Contractor;<br>Supply Vessel<br>Contractor;                              | Waste Management Plan   | Garbage record book data  | Recorded for each discharge, inspected biweekly   | Reduction in water quality; Potential for indirect effects on plankton and fish                                     |
| WM-9  | MAE14   | Generation of solid waste<br>on MODU and support /<br>supply vessels  | None providing waste managed properly     | All non-hazardous and hazardous solid waste generated by the Block 4 exploration drilling programme will be transported to shore for recycling/treatment/disposal in accordance with MARPOL 73/78 Annex V or incinerated onboard the MODU (with the exception of water-based drill cuttings and drill fluids).  | Drilling Contractor;<br>Supply Vessel<br>Contractor                               | Waste Management Plan   | Specified and provided for in relevant management plan/s; site verification zero noncompliance. | Waste records available for review.   | None under normal operations  |
| WM-4  | MAE04   | Drilling of lower well<br>sections using synthetic<br>NADFs - ship to shore of<br>cuttings  | Air quality; Climate change               | Cuttings skips will be certified.   | TEP Liban; Drilling Fluids Contractor;  | Waste Management Plan,<br>Scope of Work   | Specified and provided for in relevant management plan/s; site verification zero noncompliance. | Certification of skips checked at reception   | Reduction in air quality due to significant transportation requirements; GHG emissions contribute to climate change |
| WM-5  | MAE04   | Drilling of lower well<br>sections using synthetic<br>NADFs - ship to shore of<br>cuttings  | Air quality; Climate change               | Onward export of cuttings to neighbour country for treatment and disposal will be compliant with the requirements of the Basel convention (R).  | TEP Liban; Drilling<br>Fluids Contractor;   | Waste Management Plan,<br>Scope of Work   | Specified and provided for in relevant management plan/s; site verification zero noncompliance. | Documentation checked at each shipment  | Reduction in air quality due to significant transportation requirements; GHG emissions contribute to climate change |
| WM-13 | MAE14   | Generation of solid waste on MODU and support / supply vessels  | None providing waste managed properly     | Hazardous waste will be transported, stored and treated/disposed of in line with applicable national regulations in force (including reporting requirements, etc)   | Drilling Contractor;<br>Supply Vessel<br>Contractor;                              | Waste Management Plan;<br>HSE Plan  | Environmental license/s;<br>quarterly MOE reports.  | Monitoring at each step of the activity: transport, storage and disposal.                           | None under normal operations  |
| MR-6  | OAE04   | Logistics base operation – waste management   | None providing waste managed properly     | The logistics base contractor will ensure vehicles transporting hazardous wastes from site have appropriate certification / licence to transport wastes of the particular carried waste codes (R).  | Logistics Base<br>Contractor;   | Waste Management Plan;<br>IMDG  | 1 ·   | Certificates/licenses received at start of transport operations and each time vehicles are changed. | None under normal operations  |
| PL-1  | OAE04   | Logistics base operation – waste management   | None providing waste managed properly     | Hazardous waste storage area will be designed as follows: Storage on an impervious surface connected to a drainage and collection system and/or in a bunded area; Storage area equipped with suitable fire-fighting equipment and spillage recovery equipment such as shovels and absorbent materials; Restricted/controlled area and access to the storage site. | Logistics Base<br>Contractor;   | Waste Management Plan;<br>Logistics Base Contract   | Zero noncompliance  | Initial check at logistics base final set up, and after any maintenance servicing of storage areas  | None under normal operations  |
| WM-11 | MAE14   | Generation of solid waste<br>on MODU and support /<br>supply vessels  | None providing waste managed properly     | Waste receptacles will be designed to prevent release of wind born waste.   | Drilling Contractor;<br>Supply Vessel<br>Contractor; Logistics<br>Base Contractor | Waste Management Plan;<br>Scope of Work   | Specified and provided for in relevant management plan/s; site verification zero noncompliance. | Daily tour check of waste receptacles during operations   | None under normal operations  |





[This page has intentionally been left blank.]