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Agenda item 3. Finalization of the Offshore Environmental Impact Assessment (EIA) Guidelines

Revised Guidelines for the Conduct of Environmental Impact Assessment (EIA)

Draft

For environmental and economic reasons, this document is printed in a limited number. Delegates are kindly requested to bring their copies to meetings and not to request additional copies.

UNEP/MAP  
Athens, 2021

## **Note by the Secretariat**

1. Article 23 of the Offshore Protocol provides for the formulation and elaboration of international rules, standards and recommended practices and procedures and the adoption of guidelines, in accordance with international practices. In this context, the Mediterranean Offshore Action Plan, adopted by the Nineteenth Ordinary Meeting of the Contracting Parties to the Barcelona Convention and its Protocols (COP 19) (Athens, Greece, 9-12 February 2016), provides, in its Specific Objectives 7 and 8, for the development and adoption of regional offshore standards and guidelines.
2. In accordance with the above-mentioned provisions of the Offshore Protocol and Action Plan, REMPEC, in close cooperation with the Secretariat, developed the Guidelines for the Conduct of Environmental Impact Assessment (EIA), presented in this document.
3. The overall objective of the present guidelines is to ensure that the Contracting Parties harmonise regional practices for offshore activities in the Mediterranean, in line with the Offshore Protocol, taking into consideration different standards and guidelines developed over the years from a wide variety of industry, national, regional and international organisations.
4. In view of developing the guidelines and being informed about the current status of the conduct of the EIA across the region and beyond, a questionnaire was sent to all Contracting Parties for comments. The questionnaire was also sent to the International Association of Oil & Gas Producers (IOGP), who requested feedback from their members. Four international oil and gas operators and one national industry association submitted completed questionnaires. Concurrently, a study was undertaken reviewing international and national legislation and guidance from areas and countries with a mature offshore oil and gas industry, as well as guidance from industry organisations, in order to identify best practices from around the world. Descriptions of the best practices and guidance documentation reviewed and the rationale underpinning the guidelines presented here was provided in the information document Rationale for the Guidelines for the Conduct of Environmental Impact Assessment (EIA) (UNEP/MED WG.476/Inf.4).
5. A previous version of the guidance (UNEP/MED WG.476/3) was presented and discussed at the Second Meeting of the Barcelona Convention OFOG Sub-Group on Environmental Impact held in Athens, Greece on 27-28 June 2019. That version included comments and changes proposed by the Contracting Parties and MAP Partners in written form following the Meetings of the REMPEC Focal Points (Malta, 11-13 June 2019) and the SPA/BD Thematic Focal Points (Portoroz, Slovenia 18-21 June 2019).
6. Additional substantive written comments were received by the Secretariat after the Second Meeting of the Barcelona Convention OFOG Sub-Group on Environmental Impact, leading to subsequent bilateral consultations with Contracting Parties and partners on outstanding issues. The result of this process is consolidated in the current document. Some additional changes are proposed by the Secretariat to enhance clarity and ensure consistency throughout the document. In order to indicate the proposed changes and facilitate the review by the meeting, these are reported in highlighted text for added text and in strikethrough for deletion.
7. In addition to editorial changes, the main changes from the previous version are summarized as follows:
  - a. Change in the order of the sections, in line with the schematic showing key stages and outputs of the EIA process presented in Annex II (overview of structural changes is provided in Annex IV. These changes are not highlighted in the text);
  - b. Additions (e.g. activity, environmental assessment), further elaboration (e.g. socio-economic) and revision (e.g. study area) of definitions in the EIA terminology section. Sorting the list in alphabetical order;

- c. Revision of the list of activities requiring EIA (for which no prior screening is required) and deletion of the list of activities requiring an Environmental Assessment. Clarification that the requirement for an environmental assessment or EIA is determined through screening on the basis of the screening criteria were provided;
- d. Emphasizing the precautionary principle underlying the impact assessment methodology framework;
- e. Clearer distinction between mitigation measures and compensation/offsetting;
- f. Emphasizing the requirement of the Competent Authority to promptly inform the public and the authorities on granting/refusing consent based on the EIA process;
- g. Deletion of sections related to chemical permitting, quantification of chemical use and discharge and chemical risk assessment modelling, on the basis that details on the chemicals to be used in the activity are usually not available at the EIA stage. Further guidance on chemicals is provided in separate guidance documents (Common Standards and Guidance on the Disposal of Oil and Oily Mixtures and the Use and Disposal of Drilling Fluids and Cuttings (Decision IG.24/9 Annex I) and the planned guidance on the use and discharge of harmful or noxious substances and material;
- h. Compilation of Annex I - established guidance documents and best practice publications;
- i. Other minor additions and refinement of terms and statements to enhance further streamlining with international EIA regulations and best practices.

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## List of Abbreviations / Acronyms

|               |   |
|---------------|---|
| <b>ALARP</b>  | As Low As Reasonably Practicable                            |
| <b>BAT</b>    | Best Available Techniques                                   |
| <b>CHARM</b>  | <del>Chemical Hazard and Risk Management</del>              |
| <b>CP</b>     | Contracting Party   |
| <b>EBS</b>    | Environment Baseline Survey                                 |
| <b>EIA</b>    | Environmental Impact Assessment                             |
| <b>EIS</b>    | Environmental Impact Statement                              |
| <b>EMP</b>    | Environmental Management Plan                               |
| <b>ESIA</b>   | <del>Environmental and Social Impact Assessment</del>       |
| <b>HMCS</b>   | <del>Harmonised Mandatory Control Scheme</del>              |
| <b>HOCNF</b>  | <del>Harmonised Offshore Chemical Notification Format</del> |
| <b>LSPC</b>   | List of Substance of Possible Concern                       |
| <b>IMAP</b>   | Integrated Monitoring and Assessment Programme              |
| <b>IOGP</b>   | International Association of Oil and Gas Producers          |
| <b>MAP</b>    | Mediterranean Action Plan                                   |
| <b>MEBS</b>   | Marine Environment Baseline Survey                          |
| <b>OCF</b>    | Operator Compliance Factsheets                              |
| <b>OCNS</b>   | <del>Offshore Chemical Notification Scheme</del>            |
| <b>OFOG</b>   | Barcelona Convention Offshore Oil and Gas Group             |
| <b>PEC</b>    | <del>Predicted Environmental Concentration</del>            |
| <b>PLONOR</b> | <del>Pose Little or No Risk to the Environment</del>        |
| <b>PNEC</b>   | <del>Predicted No-effect Concentration</del>                |
| <b>ROV</b>    | Remotely-operated vehicle                                   |
| <b>RQ</b>     | Risk Quotient   |
| <b>SEA</b>    | Strategic Environmental Assessment                          |
| <b>SPA</b>    | Specially Protected Areas                                   |
| <b>SPA/BD</b> | Specially Protected Areas/Biological Diversity              |
| <b>SPR</b>    | Source-Pathway-Receptor                                     |

## 1. Introduction

1. The aim of this document is to provide guidance on practical methods and approaches to assessing impacts and effects on the environment of activities as provided for in Article 1.d points (ii) and (iii) of the Offshore Protocol. The guidelines are not intended to be formal or prescriptive and are designed to support the development of an approach which is appropriate to an individual activity, and to consider subsequent impacts and effects as an integral part of the Environment Impact Assessment (EIA) process. ~~Stricter +~~ Relevant<sup>1</sup> provisions existing in Contracting Parties' legislation and or regulatory systems prevail. The guidance provides advice on the EIA process and suggests methods and tools for identifying and assessing impacts, effects and risk to the environment. It is recommended that the relevant Competent Authority undertakes Strategic Environmental Assessment (SEA) prior to licensing oil and gas activities. The SEA is important as an assessment tool for area-based planning, formulation of governmental strategies and identification of data gaps at an early stage prior to licensing.

### 1.1. The EIA Process

2. This section describes the key stages in the EIA process, including the principles of EIA and the approach taken to identify baseline conditions and to evaluate the potential environmental impacts and effects associated with a proposed activity.

3. The EIA guidance in this document follows common legislative requirements and has drawn on a number of established guidance documents and best practice publications, as provided for in Annex I to this document. This includes a clear and transparent determination of the magnitude of impacts of the proposed activities, the sensitivities and resilience of the receptors, and the impact receptor pathways. This is key to a successful and clearly auditable EIA process supporting statutory decision making.

4. It is recommended that the EIA process is initiated as early as possible, in particular in areas where a SEA has not been conducted before<sup>2</sup>.

5. The EIA process is a series of assessments undertaken to ensure environmental issues are captured and considered throughout all stages of the activity development, from the initial plans through to the construction and the operation/~~operation/~~monitoring/decommissioning stages<sup>3</sup>. The EIA process is presented in a schematic way in Annex II. Wherever possible, assessments should use an evidence-based approach that is systematic and auditable to evaluate and interpret the potential marine, terrestrial and socio-economic impacts of proposed activities on physical, biological and anthropogenic receptors (~~ESIA~~)<sup>4</sup>.

6. An EIA is an effective tool to determine mitigation measures for activity-specific impacts and effects. The views and concerns of consulted stakeholders, environmental authorities and the public concerned form an important part of any recommendations. The EIA should follow all relevant best practice throughout the process, ensuring appropriate mitigation recommendations are developed to minimise the activity's adverse effects and to maximise positive environmental effects, wherever possible.

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<sup>1</sup> Deletion proposed by one CP as this is a guidance document, and hence all relevant legislative provisions in CPs should prevail

<sup>2</sup> Addition proposed by one observer

<sup>3</sup> Addition proposed by one CP

<sup>4</sup> Deletion proposed by one CP as the ESIA is not directly connected to the current scope of EIA

7. The aim of the EIA process is to identify, describe<sup>5</sup>, assess, reduce or eliminate potential adverse impacts or effects wherever possible. It is a process that is informed by the best understanding of the baseline environment and the corresponding body of scientific knowledge and is focused on identifying the most effective mitigation solutions, and subsequently reassessing the potential residual environmental effects. The ALARP (As Low As Reasonably Practicable)<sup>6</sup> methodology may also be considered.

8. The Competent Authority, environmental authorities, the public concerned, and stakeholder consultation are key factors in determining important data sources, the survey scope and design of the supporting technical studies, and the recommendation of mitigation measures. Consultation is crucial to understanding the limitations of the existing body of science and knowledge within relevant topics. Those limitations and the corresponding uncertainty in predictions of impacts and effects should be clearly exposed in the Environmental Impact Assessment report (EIA report). The Environmental Impact Statement (EIS) is the most common name given to the printed report which documents the results of the EIA process<sup>7</sup>.

9. The EIA report to be provided by the operator for an activity should include a description of reasonable alternatives studied by the operator which are relevant to that particular activity, including, as appropriate, an outline of the likely evolution of the current state of the environment without implementation of the activity (baseline scenario), as a means of improving the quality of the EIA process and of allowing environmental considerations to be integrated at an early stage in the activity's design.

## 1.2. EIA Terminology

10. This section defines terms (in alphabetical order)<sup>8</sup> that are relevant to the EIA methodology framework. Technical studies may use topic-specific terminology that differs from these definitions and these should be clearly defined.

11. **Activity:** concerning exploration and/or exploitation of the resources in the Protocol Area, including:

- (i) Activities of scientific research concerning the resources of the seabed and its subsoil;
- (ii) Exploration activities:
  - Seismological activities; surveys of the seabed and its subsoil; sample taking;
  - Exploration drilling;
- (iii) Exploitation activities:
  - Establishment of an installation for the purpose of recovering resource, and activities concerned therewith;
  - Development drilling;
  - Recovery, treatment and storage;
  - Transportation to shore by pipeline and loading of ships;
  - Maintenance, repair and other ancillary operations.<sup>9</sup>

12. **Baseline:** the current state of the environmental, socio-economic (related to population and human health)<sup>10</sup> or cultural domain prior to project construction or operation. The baseline

<sup>5</sup> Addition proposed by one CP

<sup>6</sup> ALARP ("As Low As Reasonably Practicable") is a principle in the regulation and management of safety-critical and safety-involved systems. The principle is that the residual risk shall be reduced as far as reasonably practicable

<sup>7</sup> Addition by Secretariat to ensure clarity of commonly-used terms

<sup>8</sup> List of terms now ordered alphabetically

<sup>9</sup> Addition proposed by one CP

<sup>10</sup> Addition proposed by one CP to define the socio-economic scope more specifically

incorporates the specific area of the activity and the surrounding, interconnected areas and components of the environment.

13. **Baseline scenario:** a description of reasonable alternatives studied by the operator which are relevant to the activity, including, as appropriate, an outline of the likely evolution of the current state of the environment without implementation of the activity<sup>11</sup>.

14. **Effect:** the environmental, ecological, socio-economic (related to population and human health) or cultural consequences of activity-related impacts upon receptors of concern. Consequences are defined as beneficial or adverse. Predictions should be relative to the baseline, and incorporate any natural variability:

- a. Beneficial: a beneficial effect is one that improves the baseline conditions of receptors of concern e.g. increases in populations of rare or protected species, increases in the area or quality of habitats, or increases in local and regional economic activity;
- b. Adverse: an adverse effect is one that worsens the baseline conditions of receptors of concern e.g. decreases in populations of rare or protected species, reductions in the area or quality of important or protected habitats or sites, or decreases in local and regional economic activity;
- c. Direct: an effect that is the direct consequence of an activity-related impact;
- d. Indirect: an effect that is an indirect or secondary consequence of an activity-related impact. Indirect effects are likely to be spatially or temporally removed from the direct impacts;
- e. Temporary effect: an effect that is lasting for only a limited period of time and is not permanent;
- f. Permanent effect: an effect that is lasting or intended to last or remain unchanged indefinitely;
- g. Reversible effect: an effect that can be reversed either by the regenerative power of the environment or by mitigation measures;
- h. Irreversible effect: an effect that cannot be reversed either by the regenerative power of the environment or by mitigation measures.

15. **Environmental assessment:** a concise review document that describes the proposed development and identifies any impacts it is likely to have on the receiving environment together with any measure to reduce the significance of any impact<sup>12</sup>.

16. **Impact:** the predicted, measurable changes in environmental conditions as a direct result of an activity-related action. Impacts are frequently constrained to the physical and chemical domains, but may also include biological aspects. Changes should be measurable, quantified or estimated in relevant units where possible, and defined as positive or negative. Predictions should be relative to the baseline and should incorporate any natural variability:

- a. Positive: a positive impact will cause an increase to the baseline condition of a receptor, such as an increase in the number of jobs in a given area;
- b. Negative: a negative impact will cause a decrease to the baseline condition of a receptor, such as a decrease in the area of a given habitat;
- c. Direct: an impact that is the direct result of an activity-related action. Direct impacts are likely to be spatially or temporally concurrent;
- d. Indirect: an impact that is an indirect or secondary result of an activity-related action. Indirect impacts are likely to be spatially or temporally removed from the direct impacts;
- e. Temporary impact: an impact that is lasting for only a limited period of time and is not permanent;
- f. Permanent impact: an impact that is lasting or intended to last or remain unchanged indefinitely;
- g. Reversible impact: an impact that can be reversed either by the regenerative power of the environment or by mitigation measures;

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<sup>11</sup> Addition proposed by one CP

<sup>12</sup> Addition by Secretariat to ensure clarity of commonly-used terms

- h. **Irreversible impact:** an impact that cannot be reversed neither by the regenerative power of the environment nor by mitigation measures.
17. **Interacting Effects:** multiple effects upon a single receptor may interact in a number of ways, including:
- a. **Additive Effects:** the sum of all effects e.g. multiple impacts which would individually cause a population reduction, add together to produce a larger population reduction;
  - b. **Synergistic Effects:** an interaction of effects upon a single receptor that causes an overall effect that is greater than the sum of the individual effects;
  - c. **Antagonistic Effects:** an interaction of effects upon a single receptor that causes an overall effect that is less than the sum of the individual effects;
  - d. **Combination Effects:** effects arising from an individual development in combination with effects from other plans or projects;
  - e. **Cumulative Effects:** the incremental effects caused by the combined effects of past, present or reasonably foreseeable activities and the development itself. This includes the combined effects of this activity in combination with other activities generating similar effects both temporally and spatially. Predictions should be relative to the baseline and incorporate any natural variability.
18. **Likelihood:** probability of occurrence, which does not imply that something is necessarily probable or certain. However, all potential impacts and effects must be considered in the EIA process and their environmental risk should be evaluated in terms of evaluation of their consequences and likelihood of occurrence.
19. **Magnitude:** the degree and importance of the change to the baseline conditions, and subsequent effects. Assessment of magnitude must consider all the relevant ecological, socio economic or other aspects of the receptors concerned, including the legal aspects.
20. **Mitigation:** measures to avoid, cancel, reduce, ameliorate or abate adverse activity impacts or effects. Subcategories include:
- a. **Avoidance:** avoidance is the process of eliminating possible activity impacts at source, either through designing them out or through implementation of alternative methods. Also known as built-in mitigation;
  - b. **Minimisation:** minimisation is conceptually similar to avoidance but aims to reduce activity impacts at source where eliminating them may not be possible. Again, this may be through design considerations or through alternative methods;
21. **Offset:** compensation through measures to improve other sites undertaken where activity-specific mitigation is not possible or is unlikely to be effective. **Offsetting activity is meant to target the same category of species/habitat, albeit in a different location, the replacement area<sup>13</sup>.**
22. **Pathway:** a mechanism or series of interactions (e.g. deposition of sediment, chemical reactions, or airborne noise) that results in an impact upon a final receptor (e.g. benthic organisms, terrestrial habitats or nearby residential properties). Pathways may be physical, chemical, biological or ecological or socio-economic processes or interactions, and may include intermediate stages.
23. **Receptor:** a specific component of the baseline environment or socio-economic domain that will be, or is 'likely' to be, affected by the impacts or effects of the activity. This could be a single entity such as a species or community, or a conceptual grouping such as a population or subset of an ecosystem or an ecosystem itself. A receptor may be affected only by the specific activity proposed, or by the proposed activity and other relevant activities in combination.

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<sup>13</sup> Addition proposed by one CP

24. **Residual Effect:** the remaining effect after mitigation measures have been applied to reduce predicted activity-related effects.

~~24 bis. Restoration: actions to repair features of the impacted environment that are undertaken to restore environmental components for mitigation targets, where significant impacts cannot be avoided or adequately reduced to acceptable levels.<sup>14</sup>~~

25. **Sensitivity:** the sensitivity of a receptor is the degree to which it may be affected by activity - related impacts or effects. Sensitivity is a component characteristic that will determine the magnitude of effects and is independent of value or legal status.

26. **Source:** the source **origin<sup>15</sup>** of an impact. This will be an aspect of the activity, and will typically be activity-related actions, or a direct result of the development of the activity **(e.g. ground preparation and construction activities)<sup>16</sup>**.

~~Source: the origin of the potential impacts (e.g. ground preparation and construction activities)<sup>17</sup>~~

27. **Source-Pathway-Receptor Analysis:** a formal approach to assessing the flow of changes and consequences from a source of impacts to all final receptors. Analysis incorporates the best current scientific understanding of the processes involved, logical cause-and-effect, and considers the relevant characteristics of all receptors and interactions.

~~28. Study area: The characterization of each environmental theme must be extended to the whole large area with specific in-depth information relating to the site area.~~

- ~~1 A [large area] and area of the site can take on different dimensions / shapes depending on the environmental topic analysed. The [large / vast area]<sup>3</sup> is the portion of territory in which the significant effects, direct and indirect, of the intervention are exhausted with reference to the environmental theme considered. The thematic maps accompanying the study must be extended to the vast area, on a scale adequate to the understanding of the phenomena.~~
- ~~2 The site area includes the surfaces directly affected by the interventions in the activity and a significant area around such that it can understand the phenomena in progress or expected. In-depth investigations can be limited to the site area.~~

Made up of the i. site area/project site where the project is located and ii. impact area/zone of influence. The site area will include at least the maritime area that is up to 2 km away of all the components of the project (except piping, 300 meters from piping in deep water and 1 km on the continental shelf). The impact area/zone of influence includes the wider area that might be impacted as a result of ongoing operation or an incident during drilling or production. The definition of the impact area should be approved by the regulator prior to the preparation of the EIA<sup>18</sup>.

29. **Value:** the intrinsic worth or importance of a receptor. This may be characterised by different factors according to the receptor considered e.g. species rareness or legal protection, financial worth, aesthetic beauty, or historic importance.

<sup>14</sup> Deletion by the Secretariat as the term is not used in the rest of the document

<sup>15</sup> Replacement of term proposed by Secretariat

<sup>16</sup> Addition of terms in brackets by Secretariat for further clarification

<sup>17</sup> Duplicate term definition

<sup>18</sup> New definition proposed by observer to replace previous definition with outstanding clarifications

## 2. EIA Screening

### 2.1. When is an EIA Required?

30. An obligation to undergo an EIA can be linked either to a particular activity type / category (see Section 2.3) or it might be determined through a screening process by a given set of criteria or thresholds (see paragraph 32) or on a case-by-case examination. Determination through screening depends on applicable regulatory provisions and it should be required for activities with likely significant effects on the environment in the absence of any legal provision specifically requiring an EIA<sup>19</sup>.

31. Screening is a process that determines whether an EIA is required for a particular activity, including project changes, license modifications and renewals<sup>20</sup>. It is determined carried out by the Competent Authority based on the information provided by the operator and other available information, such as results of preliminary verifications or assessments of the effects on the environment in the absence of any legal provision specifically requiring an EIA<sup>21</sup>. The process of screening occurs in the initial development stages of the activity.

32. During the screening process, the following criteria should be used to determine whether an EIA is required:

- a. Physical presence;
- b. Production of wastes and relevant emissions, discharges and expected residues;
- c. Production of underwater noise;
- ~~The use of natural resources;~~<sup>22</sup>
- d. The characteristics of the activity (e.g. size and design of the whole activity, ~~cumulation with other existing and/or approved activities~~<sup>23</sup>; use of natural resources, production of waste, pollution and nuisances, risk of major accidents and/or disasters which are relevant to the activity concerned, risks to human health etc.);
- e. The cumulation with other existing activities and/or approved activities;  
~~The risk of accidental events;~~<sup>24</sup>
- f. Location of the activities, close to or within an environmentally sensitive geographical area (including relative abundance, availability, quality and regenerative capacity of natural resources in the area and its underground and absorption capacity of the natural environment);
- g. Type and characteristics of the potential impacts (e.g. magnitude and spatial extent, nature, transboundary nature, intensity and complexity, probability, expected onset, duration, frequency and reversibility, cumulation of the impact with the impact of other existing and/or approved activities, possibility of effectively reducing the impact).

### 2.2. Obtaining a Screening Opinion

33. A formal screening opinion is required from the Competent Authority concerning the need for an EIA. The Competent Authority will identify whether or not an activity is likely to have significant effects on the environment. If significant effects are considered likely, then an EIA will be required. Each individual activity should be reviewed on their individual merits, whereby the Competent Authority will determine the requirements for an EIA, as part of the screening decision<sup>25</sup>.

<sup>19</sup> Introductory paragraph proposed by one CP to specify that there are projects for which an EIA is automatically required without prior screening

<sup>20</sup> Addition proposed by one observer

<sup>21</sup> Text amendments proposed by one CP

<sup>22</sup> Deleted as already included under d.

<sup>23</sup> Deleted as already included under e.

<sup>24</sup> Deleted as already included under d.

<sup>25</sup> See footnote 31

34. Where a formal screening opinion has been made by the Competent Authority, the screening opinion, including a statement of the main reasons for the requirement or not of an EIA, should be recorded and made available to the public.

35. In the case of an environmental assessment not necessarily through the EIA procedure (hereinafter referred to as environmental assessment), the Competent Authority reserves the right to request an EIA, following the outcomes of the environmental assessment. Guidelines on the conduct of an environmental assessment can be found in Section 4<sup>26</sup>.

### 2.3 Activities requiring an EIA

36. The ~~minimum thresholds for~~ **list of** activities requiring EIA presented below applies in cases where there are no national ~~thresholds lists~~ **lists** in place. It may also apply, as appropriate, in addition to any specific national criteria already in place. The ~~minimum thresholds list~~ **list** includes but is not limited to<sup>27</sup>:

~~Large diameter oil and gas pipelines which are likely to cause significant adverse impacts and/or transboundary impacts;~~

~~Offshore hydrocarbon exploration or exploitation which are likely to cause significant adverse impacts and/or transboundary impacts;~~<sup>28</sup>

- a. The extraction of 500 tonnes or more of oil per day or 500,000 m<sup>3</sup> or more of gas per day other than as a by-product of the drilling or the testing of any well;
- b. The construction of transportation pipelines, where the pipeline is more than 40 km in length and the diameter of the pipeline is more than 800 mm;
- c. Any change to or extension of the above activities, where the change or extension itself meets the thresholds;
- d. Activities which could have significant effect on a formally designated protected area (e.g. Specially Protected Area), including the use of airguns or explosives.

37. No screening is required in the case of the above list of activities requiring EIA and for activities included in national lists for which EIAs are required without prior screening<sup>29</sup>.

~~Activities requiring an environmental assessment not necessarily through the EIA procedure (hereinafter referred to as environmental assessment)~~

~~The thresholds for activities requiring an environmental assessment but not through the EIA procedure, presented below, apply in cases where there are no national thresholds in place. They may also apply as appropriate in addition to any specific national criteria already in place. Those thresholds include but are not limited to:~~

- a. ~~The extraction of less than 500 tonnes of oil per day or less than 500,000 m<sup>3</sup> of gas per day, or for an increase in a currently consented level of production that is below those thresholds;~~
- b. ~~Deep drilling of a well or borehole for the purposes of, or in connection with the getting or storage of petroleum;~~
- c. ~~The use of a mobile installation for the testing of a well;~~
- d. ~~The use of a mobile installation for the purpose of carrying out test injections of combustible gas;~~

<sup>26</sup> See footnote 31

<sup>27</sup> Text amendments proposed by one CP

<sup>28</sup> Proposed deletion by two CPs are specifications are not sufficiently objective

<sup>29</sup> Addition by Secretariat for further clarification

- e. ~~The construction, amendment or augmentation of transportation pipe lines where the pipeline is less than 40 km in length and the diameter of the pipeline is less than 800 mm. The activities which require the use of airguns or explosives, during geophysical survey~~<sup>30</sup>

However, each individual activity should be reviewed on their individual merits, whereby the Competent Authority will determine the requirements for an EIA as part of the screening decision. In addition, following the outcomes of the environmental assessment, the competent authorities reserve the right to request an EIA procedure.<sup>31</sup>

## 2.4 Exemptions for Undertaking an EIA

38. Where the sole purpose of the activity is that of national defence or a response to civil emergency and, in the opinion of the Competent Authority complying with the EIA requirements would have an adverse impact on that purpose, an activity may be exempt from undertaking an EIA on a case-by-case basis and if so, provided under the national law. However, it is strongly recommended to conduct an EIA after the fact, if the activities undertaken during the emergency meet the screening criteria provided in paragraph 32<sup>32</sup>.

## 3. EIA Guidance for Offshore Activities

### 3.1. Scoping

39. Scoping is the process of determining the scope and level of detail of the environmental information to be covered in the EIA report.

40. Depending on the activity and local sensitivities, ~~the scoping process should consult with all which may include a range of statutory and non-statutory consultees to ensure the widest (reasonable) scope of the EIA report~~ it is advised to consult with relevant stakeholders during the scoping process to determine the scope of the EIA report. The stakeholders include a range of statutory and non-statutory consultees<sup>33</sup>.

41. Generally, the Competent Authority (responsible for ~~conducting EIA~~ authorizing EIAs and administratively separate from authorities promoting offshore economic development<sup>34</sup>) will provide feedback on key environmental matters which should be addressed in the EIA report. The Competent Authority shall consult the environmental authorities before providing this feedback. All scoping activities should be recorded and included as appendices to the EIA report.

#### 3.3.1. Informal Consultation<sup>35</sup>

42. ~~The operator, following receipt of the Screening Opinion, should approach the relevant Competent Authority to discuss and agree the scope of assessments to be undertaken as part of the EIA.~~<sup>36</sup> Key regulators and stakeholders should be consulted on the scope of desk-based assessments, survey design and sample analyses, modelling studies and impact assessments to be undertaken, where

<sup>30</sup> Deletion of list proposed by observer in accordance with the Protocol, which clearly states that the Competent Authority should require an EIA "in the light of the nature, scope, duration and technical methods employed" and not based on categorical, a priori exclusions

<sup>31</sup> Section deleted by Secretariat. Information integrated under paragraphs 33 and 35

<sup>32</sup> Addition proposed by observer for better guidance

<sup>33</sup> Text amended based on proposal of one CP and two observers

<sup>34</sup> Text extended based on proposal of one observer

<sup>35</sup> Heading deleted as proposed by one observer. Informal consultation during scoping phase are not considered best practice

<sup>36</sup> Deletion proposed by one CP. Information is considered redundant as the scoping opinion sets the scope of the information to be covered by the EIA report

necessary. Further consultation should be ongoing throughout the development of the EIA report to ensure all relevant available data sources are identified and incorporated. Details of the consultations with the relevant Competent Authority and stakeholders should be summarised in the relevant chapters of the EIA report.

### **3.3.2. Identifying and Addressing Data Gaps<sup>37</sup>**

43. During the scoping process, it is important to identify potential data gaps or uncertain datasets and acknowledge limitations of datasets, and to attempt to fill those gaps or find alternative datasets to support scoping assessment. Where alternatives cannot be found, it is important for the assessment to characterise any uncertainty within the supporting data or the underlying body of scientific knowledge, and to recognise and communicate any corresponding uncertainty in predictions of impacts and effects.

## **3.2. Baseline Data Collection**

44. A methodology guidance for monitoring set out in the list of parameters document (UNEP(DEPI)/MED WG.434/4), outlines the requirement for operators to undertake an evaluation of the baseline marine environmental conditions of the area of potential impact from the planned activities, conducted via a desktop review and supplemented by field-based studies if required, based on the lifecycle stage of the planned activity and the availability of existing information.

45. For activities which require an EIA, recently obtained site-specific environmental data, and a summary of the results of physical environmental baseline surveys should be presented in the EIA report.

46. Additional information on a recommended standard for seabed sampling programmes is provided in UNEP/MED WG.476/Inf.5 Rationale for the Common Standards and Guidance on the Disposal of Oil and Oily Mixtures and on the Use and Disposal of Drilling Fluids and Cuttings.

### **3.2.1. Desktop Data Gathering**

47. A desktop evaluation of the baseline conditions of the marine environment should be conducted prior to commencing activities, documenting the condition of the marine environment for the area of potential impact from the activities. Environmental baseline data should be sufficient to characterise the area of potential impact, including regional and local biodiversity, locations of sensitive habitat and resources, and impact from other users of the resource (e.g. fishermen), so that potential impacts from the activities on all components of the marine environment can be adequately assessed within the EIA and monitored by the operator over the duration of the activities.

48. ~~The desktop evaluation should comprise a data search of published and grey literature, where available, and searches to identify publications and organisations that could provide relevant information.~~ The EIA report (i) should not in any way be constrained by specific data sources and should use the best available science; (ii) should be based on public, possibly open-source, data sources and not on proprietary, such as unpublished, “grey” or not publicly available standards, or proprietary studies compiled by the operator. The desktop evaluation should comprise a data search of peer-reviewed publications and references, where available, and searches to identify publications and organisations that could provide relevant information<sup>38</sup>.

49. Gap analysis of the desktop data identified will provide advice on which additional data is to be collected to augment the data gaps during subsequent field studies to the appropriate level of detail required for the EIA.

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<sup>37</sup> Heading deleted as data gaps are addressed more extensively in Section 3.3.2

<sup>38</sup> Text amended as proposed by two observers to clearly indicate the preferred sources of data

### 3.2.2. Environmental Baseline Surveys

50. In order to be able to assess and monitor any future change, a scientifically robust data set should be collected to determine the present environmental conditions (i.e. the baseline) of the activity location.

51. A well-designed environmental baseline survey will allow any changes in environmental conditions in the local area to be observed in the future, as well as to determine whether these changes are the result of the proposed activities or are due to natural variation or other external factors.

52. The environmental baseline survey should collect geophysical data (bathymetry, seabed features, etc.), as well as an adequate number of seabed samples for faunal identification, sediment characterisation and chemical analysis (e.g. particle size analysis, organic contaminants, heavy metals, etc.). The use of stills photography and drop-down video is a non-destructive method, which can be used for habitat assessment.

53. Additional baseline data that may be useful to collect include local hydrodynamic, metocean and water quality conditions in the area (e.g. local wind, currents, seawater and air temperatures, salinity and sediment transport).

54. Further guidance on Environment Baseline Survey (EBS) is provided in the list of parameters document (UNEP/DEPI/MED WG.434/4) submitted to the last 1<sup>st</sup> OFOG Meeting held in Loutraki Greece, in April 2017, in which a number of Operator field environmental monitoring (including baseline environmental evaluation) criteria are proposed as follows:

- a. A field marine environment and seafloor surveys be undertaken to supplement the desktop-sourced baseline data where there are gaps found within desktop-sourced information and/or where the activity warrants such further evaluation;
- b. A pre-activity Marine Environment Baseline Survey (MEBS), gathering data regarding the baseline marine environment within the area of potential impact from the activity e.g. water and sediment, from sufficient sampling locations over the full area of potential zone of impact in order to provide a statistical representation of the baseline conditions in the area, as well as from sampling locations further afield for use as points of regional reference.
- c. Pre-activity Seafloor Survey (such as high resolution side scan sonar survey, 3D shallow hazards assessment, Remotely Operated Vehicle (ROV) video survey, etc. including the use of updated surveying future technologies) should be undertaken documenting site area and ~~large area~~ impact area<sup>39</sup> seafloor conditions. The survey results will provide a reference for potential spatial and temporal changes in environmental conditions on the seafloor which may result from the activity.

55. All surveys should be designed in consideration of the Integrated Monitoring and Assessment Programme (IMAP) Common indicators described in UNEP/MED WG.476/Inf.4 Rationale for the Guidelines for the Conduct of Environmental Impact Assessment (EIA). More information on environmental survey strategies and the methodologies can also be found in UNEP/MED WG.476/Inf.5 Rationale for the Common Standards and Guidance on the Disposal of Oil and Oily Mixtures and on the Use and Disposal of Drilling Fluids and Cuttings.

~~78 bis. It should be noted that the discharges of Non-aqueous based fluids (NADF) to the sea is prohibited during drilling operations according to the relevant Common Standards and Guidance on the Disposal of Oil and Oily Mixtures and the Use and Disposal of Drilling Fluids~~

<sup>39</sup> Modified by Secretariat according to the amended definition of 'Study Area' (paragraph 28)

~~and Cuttings. NADF shall be shipped back to shore, where it may either be reconditioned for re-use, or can be treated for appropriate disposal onshore.~~<sup>40</sup>

56. The Operator Compliance Factsheets (OCF) should be used when collecting environmental data for the relevant common and candidate indicators. The completed OCFs (UNEP(DEPI)/MED WG. 434/inf.6) should be submitted to the Competent Authority of each country for authorisation and/appropriated corrective action, if necessary.

### 3.3. Impact Assessment Methodology Framework

57. It should be emphasized that the precautionary principle permeates the Offshore Protocol and the current guidelines, and as required by international law and practice. Correspondingly, all relevant determinants in Section 3.3, as well as subsequent Sections 3.4, 3.5 and 3.6, should be made, in accordance with the precautionary principle.<sup>41</sup>

#### 3.3.1. Describing and Valuing the Baseline

58. A thorough understanding of the environment and the receptors that are likely to be affected by the proposed activity is essential for making predictions of potential impacts and effects, and for making appropriate mitigation recommendations. It is important to describe the presence or absence of relevant receptors, their current condition, natural variability, and any other characteristics relevant to impact assessments. Valuations of receptors and the methodology employed should also be included. Details of the valuation methodology are described in ~~Section 3.4.7~~ Section 3.4.3 Valuation of Receptors.

59. The description of the baseline should incorporate both desk-based research and field survey data. Before commencing surveys or technical studies, guidance and agreement should be sought from the Competent Authority regarding appropriate data sources, desk-based assessments, survey design and sample analyses, modelling studies and appropriate stakeholder consultation. The scope of surveys and technical studies should consider the nature of activities and the corresponding zones of influence, the sensitivities of likely receptors, and potential pathways for activities to affect receptors. Formal analysis of potential pathways is known as source-pathway-receptor analysis, and a full description is provided in ~~Section 3.4.4~~ Section 3.3.4 Source-Pathway-Receptor Analysis.

#### 3.3.2. Data Gaps and Uncertainty

60. During the EIA process, it is important to identify potential data gaps or uncertain datasets, acknowledge limitations of datasets, and attempt to fill those gaps or find alternative datasets to support impact assessment. Where alternative datasets cannot be found, it is important for the assessment to characterise any uncertainty within the supporting data or the underlying body of scientific knowledge, and to recognise and communicate any corresponding uncertainty in predictions of impacts and effects.

#### 3.3.3. Identifying Impacts and Effects

61. The terms 'Impact' and 'Effect' are frequently used interchangeably in many published EIA reports and in certain guidance documents. The Offshore Protocol requires that "an application must include a survey concerning the effects of the proposed activities on the environment". The distinction

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<sup>40</sup> Deletion by Secretariat as it was considered outside the scope of the current section. Reference to the Common Standards and Guidance on the Disposal of Oil and Oily Mixtures and the Use and Disposal of Drilling Fluids and Cuttings in paragraph 114

<sup>41</sup> Addition proposed by one observer

between impacts and effects (and their magnitude) is important for the overall assessment of the significance of effects described in Section 3.4.5 Assessment of Significance of Effects<sup>42</sup>.

62. The Offshore Protocol stipulates the requirement for EIAs to describe and assess the “foreseeable direct or indirect short and long-term effects” of the activity. In particular, Annex IV requires:

- A description of the likely effects of the activity on the environment;
- A description of the features of the activity and/or measures proposed in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment, including possible alternatives.

63. The nature and characteristics of impacts and effects differ according to the topic and should be described in detail in the relevant EIA report chapters.

### 3.3.4. Source-Pathway-Receptor Analysis

64. Determining which receptors may be affected by activity-related actions relies on Source-Pathway-Receptor (SPR) analysis for the identification of impacts and consequential effects. The SPR Analysis process is presented in a schematic way in Annex III. SPR considers all potential routes and mechanisms for impacts to affect all potential receptors along predicted pathways. Pathways are processes or series of interactions that result in an impact upon a final receptor.

65. In some cases, receptors affected by activity related sources may themselves have effects upon other receptors, for example where there are effects on food webs or predator-prey relationships. SPR analysis should also identify all pathways and receptors when considering complex interactions where several inter-related receptors may be affected. In these cases, receptors may be affected in different ways and to different extents. For this reason, assessment of effects may need to be an iterative process, identifying several ultimate receptors, each with differing magnitudes of effects (Annex III).

### 3.4. Description and assessment of Impacts and Effects

66. All impacts identified as being potentially significant during the scoping phase should be taken forward for detailed assessment in the EIA report. Each impact should be described, quantified and assessed.

67. Although not an exhaustive list, a number of potential impacts associated with typical offshore oil and gas activities have been listed below. The assessment of the impacts should address all the phases of the project – construction/installation, pre-commissioning and commissioning, operation and decommissioning.

#### Seismic survey:

- a. Underwater noise generation on marine mammals and fish;
- b. Physical presence (e.g. survey vessel, streamers etc.) on other users of the sea and marine animals.

#### ~~Exploration drilling~~ Drilling (exploration and production):<sup>43</sup>

- a. Physical presence on other users of the sea and the seabed and associated communities (e.g. benthos);
- b. Drilling discharges (e.g. drilling muds, cement etc.) affecting the seabed and associated communities (e.g. benthos), water column and associated communities (e.g. fish);
- c. Atmospheric emissions (e.g. power generation, flaring etc.) on the atmosphere (local, transboundary and cumulative);

<sup>42</sup> Clarification added in relation to changes in paragraph 71

<sup>43</sup> Proposed amendment by one observer

- d. Underwater noise generation on marine mammals and fish;
- e. Unplanned/accidental events (e.g. hydrocarbon spills) may affect plankton, benthos, coral reefs, fish, shellfish, marine mammals, marine turtles, seabirds, seagrass beds, designated sites, coasts and inshore habitats and other users of the sea;
- f. Waste management activities.

**Production:**

- a. Physical presence on other users of the sea and the seabed and associated communities (e.g. benthos);
- b. Oily discharges (e.g. produced water) on water column and associated communities (e.g. fish);
- c. Atmospheric emissions (e.g. power generation, flaring etc.) on the atmosphere (local, transboundary and cumulative);
- d. Accidental events (e.g. hydrocarbon spills) on plankton, benthos, coral reefs, fish, shellfish, marine mammals, marine turtles, seabirds, seagrass beds, designated sites, coasts and inshore habitats and other users of the sea;
- e. Waste management activities.

**Pipelines** (the main impacts of pipelines – during the laying and operation phases should be stated, including):

- a. Transportation of hydrocarbon from production or non-production installations onshore;
- b. Suspension of sediment particles during construction and sedimentation on sensitive hard substrate habitats;
- c. Underwater noise;
- d. Lighting during construction phase, especially in shallow waters;
- e. Unplanned/accidental events (e.g. hydrocarbon leakage) on plankton, benthos, coral reefs, fish, shellfish, marine mammals, marine turtles, seabirds, seagrass beds, designated sites, coasts and inshore habitats and other users of the sea.

68. Recognition of potential cumulative and transboundary impacts from the proposed activities should also be considered when assessing impacts and effects and included within the EIA report.

69. The Common Standards and Guidelines for Special Restrictions or Conditions for Specially Protected Areas (SPA) within the Framework of the Mediterranean Offshore Action Plan should be taken into consideration for the assessment of activities on a formally designated area (e.g. SPA), in accordance with the **Specially Protected Areas/Biological Diversity (SPA/BD)** Protocol provisions.

### **3.4.1. Characterising and Assessing the Magnitude of Impacts**

70. Predictions on changes in baseline conditions are made relative to the baseline. These should be measurable, and quantified or estimated, where possible. The characterisation and assessment of the magnitude of impacts are made according to the receptors affected and require receptor-specific context. Therefore, threshold values for specific factors such as area, frequency or duration should be provided within the relevant EIA report chapters.

### **3.4.2. Characterising and Assessing the Magnitude of Effects**

71. The magnitude of potential environmental effects for each receptor should be assessed independently of its value or designated status. ~~The distinction between magnitude of impacts and magnitude of effects is crucial to the overall assessment of significance of effects described in Section 3.4.8 Assessment of Significance of Effects.~~<sup>44</sup> Even where high value receptors utilise the site, the magnitude of the effect upon those receptors may be relatively low if the habitat affected is relatively unimportant to them. Examples where the magnitude of effects upon high value receptors of concern may be low:

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<sup>44</sup> Moved to Section 3.3.3

1. Loss/reduction of habitats of receptors that are a very small proportion of their foraging range;
2. Loss/reduction of habitats of receptors whose ranges are increasing;
3. Loss/reduction of habitats of receptors that are of very poor quality;
4. Loss/reduction of habitats not used for the purposes of breeding, sheltering or overwintering<sup>45</sup>;
5. Loss/reduction of habitats of receptors that have many alternative sites.

72. The sensitivity of each receptor must be considered when assessing the likely magnitude of the effect. Ecological sensitivity is defined as the relative change of a system or population in relation to the level of disturbance or perturbation (Miller et al., 2010). The sensitivity of socio-economic and socio-ecological systems may be defined in a similar manner (Holling, 2001).

73. The magnitude of ecological effects will be a product of the activity-specific impacts and the receptor specific characteristics that make those receptors sensitive or responsive to the relevant impacts. Definitions for topic-specific characteristics should be provided in individual EIA report chapters and should incorporate any receptor-specific guidelines and best practice.

### 3.4.3. Valuation of Receptors

74. The next stage is to determine the ~~nature conservation~~<sup>46</sup> [ecological], socio-economic or heritage value of the affected receptor. The methods and criteria for assigning value need to be specific to individual receptors and should be detailed in relevant EIA report chapters.

75. Special attention should be given to the receptors typically affected by offshore activities, including:

- a. Benthos;
- b. Coral reefs;
- c. Fish and shellfish;
- d. Marine mammals;
- e. Marine reptiles;
- f. Plankton;
- g. Seabirds;
- h. Seagrass beds;
- i. Nature Conservation Areas and/or sensitive areas formally designated (e.g. Specially Protected Areas);
- j. Other users of the sea e.g. fishing, shipping, tourism and recreation, oil and gas activities, renewable energy, submarine cables, military activity, aquaculture, archaeology etc.

### 3.4.5. Assessment of Significance of Effects

76. The significance of each effect is determined by scoring the value of the ecological, socio-economic or heritage feature against the magnitude of the predicted effect. This methodology is applied individually with respect to the specific ecological, socio-economic or heritage characteristics of each receptor.

77. The level of effect significance is used to determine the use and level of mitigation measures. Where a potential effect is assessed as 'moderate' or 'major', then this should be considered "significant" in EIA terms. So far as practicable, mitigation (including offsetting) should be identified that reduces the potential magnitude or significance of effects, or the likelihood of significant effects. Minor adverse effects would not usually require any action beyond standard good management practices.

<sup>45</sup> No better alternative to term 'used' proposed by Secretariat. Addition of 'for'

<sup>46</sup> In the view of the Secretariat, 'ecological value' is more appropriate, linking to ecological valuation and ecosystem services

78. Mitigation recommendations should be explored as part of the EIA process for all ‘moderate’ and ‘major’ effects. Effects are reassessed as described above until either the effect significance is reduced to acceptable levels (‘Minor Adverse’ or ‘Negligible’) or no more mitigation can be applied. Residual effect significance is estimated, from which consenting decisions can be made.

### 3.4.6. Environmental Risk Assessment

79. It is also important to consider the likelihood that a potential effect could occur as predicted. Therefore, once the magnitude of an effect has been determined, the probability of the effect occurring should be categorised into a number of classifications ranging from ‘Certain’ to ‘Extremely Unlikely’.

80. The reason for including an ‘Extremely Unlikely’ category is that while some potential effects may be very improbable, they may also be extremely serious should they occur, resulting in major adverse effects on some receptors. These cases will require contingency plans to be put into place. Where doubt exists between two categories within the scale of probability, a precautionary approach should be adopted, and the more conservative category selected.

81. Risk management strategies include managing or breaking receptor pathways, and/or protecting receptors. Mitigation measures or strategies to reduce environmental risk should be addressed for relevant activities **that may cause operational pollution, “business-as-usual” as well as accidental events**<sup>47</sup>. Their subsequent influence on residual effects should be assessed for relevant receptors.

82. For accidental events, where it may not be possible to reduce the magnitude of potential impacts or effects, the overall environmental risk may be decreased by reducing the likelihood of an adverse event occurring through adequately designed-in mitigation measures (Gormley et al., 2011). ~~Further risk management strategies include managing or breaking receptor pathways, and/or protecting receptors. Mitigation measures or strategies to reduce environmental risk should be addressed for relevant activities, and their subsequent influence on residual effects should be assessed for relevant receptors.~~<sup>48</sup>

83. The assessment methodology used should be clearly described in the relevant EIA report chapter.

### 3.5. Cumulative **and Transboundary**<sup>49</sup> Effects

84. Cumulative effects are those caused by the combined effects of past, present or reasonably foreseeable activities in the wider area and the activity itself. Assessment of in-combination effects considers other marine and terrestrial activities generating effects over similar temporal and spatial extents. Assessment of cumulative effects should consider all potential interacting effects. The assessment of cumulative effects should draw upon established guidelines and methodologies.

85. **Transboundary effects are those caused beyond the limits of one Contracting Party’s jurisdiction from activities exercised under its jurisdiction**<sup>50</sup>.

86. Factors considered in scoping other activities in or out for assessment of cumulative **and transboundary**<sup>51</sup> effects should include connectivity, effects pathways, species distribution and foraging ranges. Consultation with the Competent Authority should be undertaken to confirm that the selection of activities included is complete, and that the approach to the assessment of cumulative and

<sup>47</sup> Addition proposed by one observer

<sup>48</sup> Deleted section is added as a separate paragraph – paragraph 81

<sup>49</sup> Merging of separate sections on cumulative and transboundary effects into one, as proposed by two CPs

<sup>50</sup> See footnote 49

<sup>51</sup> See footnote 49

transboundary effects is correct. Details regarding the rationale for considering cumulative and transboundary effects should be provided within relevant EIA report chapters.

### 3.6.a Transboundary effects

~~65. Transboundary pollution is the pollution caused beyond the limits of one Contracting Party's jurisdiction from activities exercised under its jurisdiction.~~

~~66. Factors considered in scoping should also consider the assessment of transboundary effects.~~<sup>52</sup>

## 3.6. Mitigation and Offsetting<sup>53</sup>

### 3.6.1 Mitigation Measures and Residual Effects

87. The term mitigation is used in general to cover all efforts used to reduce potential impacts (and consequently, effects). These may include design changes, alteration of proposed methods, or other activities, in addition to the core activities to reduce or ameliorate impacts. ~~Mitigation is often used as a catch-all term that also includes avoidance, minimisation, [mitigation and offsets or compensatory] measures.~~<sup>54</sup>

88. Mitigation measures are predominantly applied at source, to reduce impacts, with the intention of a corresponding reduction in residual effects upon the receptors in question. However, mitigation may also be applied directly at the receptor-level, with the intention of reducing effects, without any influence on the source or the impact.

89. All the mitigation recommendations described within the EIA report should be based upon the realistic worst-case scenarios and on the Best Available Techniques (BAT) approach, ensuring that all measures described are adequate to ameliorate the range of predicted effects. Mitigation recommendations may be revised during the determination of application.

### 3.6.2 Mitigation and Monitoring

90. Mitigation measures should be predominantly applied at source, to reduce impacts, with the intention of a corresponding reduction in residual effects upon the receptors in question to acceptable levels. However, mitigation may also be applied directly at the receptor-level, with the intention of reducing effects, without any influence on the source or the impact.

91. Many oil and gas operators are multinational companies, which operate in different countries under multiple regulatory regimes and are typically managed through their global corporate management systems to ensure all regulatory standards are met wherever they operate. Many offshore oil and gas activities do have inherent mitigation measures in place, as part of their “normal” operational procedures and practices. **Such mitigation measures should, nevertheless, be assessed/reviewed on a case-by-case basis in order to make sure they correspond to the needs as identified through the EIA and should be included in the EIA report as a way to demonstrate that the impacts are being managed**<sup>55</sup>.

92. All environmental mitigation and monitoring requirements should be stated within the EIA report and the decision to grant development consent and should be taken forward in an Environmental Management Plan (EMP). In line with the requirements set out in the IMAF, regular Operator Environmental Performance assessments should be carried out by an independent/third-party to assess and evaluate the operator's environmental performance throughout the operations against that stated within the EIA report.

<sup>52</sup> See footnote 49

<sup>53</sup> New heading that considers mitigation and offsetting separately as proposed by one CP

<sup>54</sup> Deletion proposed by one CP to avoid confusion

<sup>55</sup> Addition proposed by one observer

### 3.6.3 Compensation and offsetting

93. Compensation measures should be considered separate from mitigation. Compensation refers to ‘measures taken to make up for the loss of, or permanent damage to, biological resources through the provision of replacement areas’. Replacement areas should seek to offset as many of the features that were lost as possible<sup>56</sup>.

### 3.7. The Environmental Impact Assessment Report

94. An EIA report submitted to the Competent Authority must identify, describe and assess the effects of the proposed activities on the environment, socio-economic and cultural domain<sup>57</sup>, the mitigation measures, information on geographical location, safety measures, contingency plan, operator details, monitoring and decommissioning procedures, precautions for Specially Protected Areas and information about responsibilities for any environmental damage.

95. Annex IV of the Offshore Protocol provides the minimum criteria that every EIA report must contain.

#### 3.7.1 Content and Structure

96. The Environmental Impact Assessment report must contain at minimum:

- a. A description of the methods, installations and other means to be used, and possible alternatives to such methods and means and justification of the selected option;
- b. An indication of the nature, aims, scope and duration of the proposed activities;
- c. A description of the initial state/baseline of the environment of the area;<sup>58</sup>
- d. A description of the reasonable alternatives to the proposed activities studied by the operator which are relevant to the project and its specific characteristics;
- e. A description of the geographical boundaries of the area within which the activities are to be carried out, including safety zones, where applicable;
- f. A reference to the methodology used for the environmental impact assessment;
- g. A description of the foreseeable direct or indirect short and long-term effects of the proposed activities on the environment, including fauna, flora and the ecological balance;
- h. A statement setting out the measures proposed for reducing to a minimum the risk of damage to the environment as a result of carrying out the proposed activities, including possible alternatives to such measures;
- i. An indication of the measures to be taken for the protection of the environment from pollution and other adverse effects during and after the proposed activities;
- j. An indication of whether the environment of any other State is likely to be affected by the proposed activities;
- k. Details of the environmental monitoring programme and the management plan.

### 3.8. Regulator Review and Public Consultation

97. After submission of the EIA report to the Competent Authority, it will be subject to a formal public consultation period. The general public should be notified that an EIA report has been submitted to allow for any persons or third parties likely to be interested in, or affected by, the relevant activity to comment. Notifying the public is typically undertaken through the publication of a notice in a newspaper or other publication inviting comments on the EIA report. Taking into account the wider significance of the activities and best practice, publication should take place electronically and for free (via the internet)<sup>59</sup>. It is recommended that a deadline for the submission of comments be applied to

<sup>56</sup> Addition proposed by one CP

<sup>57</sup> Addition proposed by Secretariat in line with previous modifications

<sup>58</sup> Addition proposed by one CP

<sup>59</sup> Addition proposed by one observer

the consultation period e.g. 30 days after the date of public notice. Any comments raised during the public consultation must be sent to the Competent Authority.

98. If the Competent Authority considers that an activity could have a significant effect on the environment of an adjacent State, or where that State considers that its environment is likely to be significantly affected by the activity, the adjacent State should be invited to participate in the consultation process. The Competent Authority should always consider that the environment of an adjacent State is likely to be affected, if this possibility cannot be excluded with certainty on the basis of submitted information<sup>60</sup>.

99. Once the consultation has concluded, the Competent Authority will undertake its review. The review is the process of establishing whether the environmental information submitted by the operator, as part of an EIA procedure, is adequate to grant consent. The review can be undertaken by the Competent Authority or by an independent organisation on behalf of the Competent Authority. The result of the public consultation with all questions and provided answers must be publicly available. Relevant public comments must be taken into consideration and must be specifically addressed by the Competent Authority. Maastricht guidelines on public consultation (United Nations, 2015) should be considered best practice and strongly recommended<sup>61</sup>.

100. Where the EIA report is considered to be inadequate, the operator will be asked to provide additional information and the consent decision process will not start until this information has been provided. Data gaps should in every case prevent consenting. If it cannot be shown that the submitted information is adequate, then it should be considered inadequate, and consent should be refused<sup>62</sup>. There will usually be a procedure for appeal against requests for further information.

101. Following receipt of the operator's response, the Competent Authority will take the additional information into consideration when reviewing the submission. If the additional information is considered to be integral to the decision, it will also require the additional information to be subject to a further round of public consultation.

102. Where there are significant additional information requirements, the Competent Authority may request a formal addendum to the original EIA report, or even suggest that the operator should prepare a new EIA report, and the entire review process would have to be repeated.

### 3.9. Decision Making (Consenting)

103. Once all the issues raised during the consultation process and the Competent Authority's review have been resolved, authorisation will only be granted if the authority is satisfied that the activity is unlikely to have a significant impact on the receiving environment and that the installation has been planned, in accordance with accepted international standards and practice. The operator should also demonstrate the technical competence {and financial capacity} to carry out the activities.

104. {Authorisation shall be refused if there are indications that the proposed activities are likely to cause significant adverse effects on the environment that could not be avoided by compliance with the conditions prescribed by the Competent Authority} laid down in the authorisation. These conditions concern measures, techniques or methods designed to reduce to the minimum risks of and damage due to pollution resulting from the activities, as referred to in Article 6, paragraph 3 of the Offshore Protocol<sup>63</sup>.

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<sup>60</sup> Addition proposed by one observer

<sup>61</sup> Addition proposed by one observer

<sup>62</sup> Addition proposed by one observer

<sup>63</sup> Amendment proposed by one CP

105. When considering approval of the siting of an installation, the operator ~~operator~~ **Competent Authority**<sup>64</sup> should ensure that no detrimental effects will be caused to existing facilities, in particular, to pipelines and cables.

106. The Competent Authority will examine the EIA report against the requirements listed in the Offshore Protocol. Authorisation will be granted when the Competent Authority is satisfied with the information provided and that there are no environmental objections to the issue of consent for the activities. Authorisation will specify the activities and the period of validity, geographical limits, technical requirements, installations and necessary safety zones. The authorisation may impose conditions to reduce risks and damage due to pollution resulting from the activities. Any changes to the proposed activity/project must be reported to the Competent Authority and shall be subject to screening or EIA. **When a decision to grant or refuse consent has been taken, the Competent Authority shall promptly inform the public and the authorities**<sup>65</sup>.

#### **4. Guidance for the conduct of environmental assessment as per section 2.3**

##### **4.1. Permitting**

107. ~~As indicated in section 2.3 and following the screening decision,~~ **Following the screening decision, in the case of an activity that qualifies for an environmental assessment**<sup>66</sup>, the information to be provided by the operator should address the following aspects:

- a. A brief description of the activity, methods, installations and other means to be used during their entire lifespan;
- b. A brief description of the nature, aims, scope and duration of the proposed activities;
- c. A brief description of the initial state/baseline of the environment of the area;
- d. A brief description of the geographical boundaries of the area within which the activities are to be carried out, including safety zones, where applicable;
- e. A brief description of the potential direct or indirect, short and long-term effects of the proposed activities on the environment, including fauna, flora and the ecological balance;
- f. A description of the mitigation measures in place to avoid/minimise the risk of damage to the environment through pollution during and after the proposed activities;
- g. A notification, as per Article 17 of the Protocol, on whether it is likely that the environment of another State is to be affected by the proposed activities.

108. In describing the above points, the operator may consider the following provisions:

##### i. Description of Activity

109. A description of the activity including the activity methodologies, location of activity and work programme should be provided.

##### ii. Activity Schedule

110. The ~~Environmental Appraisal~~ **environmental assessment**<sup>67</sup> should confirm the proposed start date and duration of the activities. The schedule should also take into account potential delays, as there may be seasonal differences in environmental sensitivities.

##### iii. Description of Environmental Baseline

<sup>64</sup> Adjustment proposed by one CP

<sup>65</sup> Addition proposed by one CP

<sup>66</sup> Clarification proposed by one observer

<sup>67</sup> Replacement of term proposed by the Secretariat and one CP to avoid confusion

111. A description of all aspects of the environment likely to be affected by the activity should be included. Particular attention should be made to environmentally sensitive geographical areas, which are likely to be affected by the activity, including any protected species or habitats. Maps should be included, where relevant, to supplement the environmental baseline description. Consideration should also be given to other activities and users which use the location of the proposed activities, and the likely evolution of the current state of the environment without implementation of the project (baseline scenario)<sup>68</sup>.

#### 4.1.4. Environmental Assessment

The Environmental Assessment should include any likely significant effects of the activity on the environment. The elements to be considered should include:

- ~~a. Physical presence;~~
- ~~b. Production of wastes and relevant emissions, discharges and expected residues;~~
- ~~c. Production of underwater noise;~~
- ~~d. The use of natural resources;~~
- ~~e. The characteristics of the activity (e.g. size and design of the whole activity, cumulation with other existing and/or approved activities, use of natural resources, production of waste, pollution and nuisances, risk of major accidents and/or disasters which are relevant to the activity concerned, risks to human health etc.);~~
- ~~f. The cumulation with other activities;~~
- ~~g. The risk of accidental events;~~
- ~~h. Location of the activities, close to or within an environmentally sensitive geographic area (including relative abundance, availability, quality and regenerative capacity of natural resources in the area and its underground; absorption capacity of the natural environment);~~
- ~~i. Type and characteristics of the potential impacts (e.g. magnitude and spatial extent, nature, transboundary nature, intensity and complexity, probability, expected onset, duration, frequency and reversibility, cumulation of the impact with the impact of other existing and/or approved activities, possibility of effectively reducing the impact).<sup>69</sup>~~

#### iv. Significant effects of the activity

112. The Environmental Assessment should include any likely significant effects of the activity on the environment. The elements to be considered are shown in Section 2.1 paragraph 32<sup>70</sup>.

#### v. Environmental Management and Mitigation Measures

113. Where relevant, any features or measures envisaged to avoid, prevent or reduce what might otherwise cause significant adverse effects on the environment should be included in the environmental assessment, as well as the monitoring and the management plan including oil spill contingency plan<sup>71</sup>.

## 4.2. Permitting for the Use and Discharge of Chemical Additives

The List of Parameters (UNEP(DEPI)/MED WG.434/4) outlines the requirement for the submission of documentation to the relevant regulatory authority (Competent Authority) for the provision of environmental permits for the use of chemicals, drilling mud and allowable discharges, as part of the Operator Monitoring Plan and to address the requirements per relevant sections of the Offshore Protocol.

<sup>68</sup> Addition proposed by one CP

<sup>69</sup> Paragraph deleted as the elements to be considered are already provided in paragraph 32

<sup>70</sup> See footnote 69

<sup>71</sup> Addition proposed by one observer

This section provides further clarification on the minimum criteria which must be included within an application for a chemical use and discharge permit according to relevant legislation and international best practice.

The use and discharge of all planned chemical additives, including any contingencies, must be approved by the Competent Authority. Any chemical permit application should include:

- a. A brief description of the offshore installation on or from which the chemicals are to be used and/or discharged and its location;
- b. A brief description of any technology and/or techniques which would be used to prevent or minimise the use and/or discharges;
- c. A brief description of the measures intended to monitor the use and/or discharge of any chemicals;
- d. A list of the use and discharge volumes of chemical additives;
- e. A risk assessment, incorporating details of any chemicals that could pose a risk to the environment and an impact assessment.

#### 4.2.1. Permitted Substances List

Currently Annex I of the Offshore Protocol lists substances where disposal is prohibited and Annex II, which lists substances that require a special permit to discharge. The Barcelona Convention Offshore Oil and Gas Group (OFOG) Sub-Group on Environmental Impact of Offshore Monitoring Programmes has recommended changes to Annex I and II of the Offshore Protocol after reviewing best practices. A proposed amendment to the List of Pollutants (document UNEP(DEPI)/MED WG.434/3) is provided as Appendix 1 to the Rationale for the Guidelines for the Conduct of Environmental Impact Assessment (EIA) submitted as information document (UNEP/MED WG.476/Inf.4).

The lists of substances addressed under the Convention for the Protection of the Marine Environment of the North East Atlantic (the OSPAR Convention) and the Offshore Chemical Notification Scheme (OCNS), which manages chemical use and discharge **may be used** as an alternative to Annex II. These lists include, the List of Substances of Possible Concern (LSPC), the List of Substances Used and Discharged Offshore which are Considered to Pose Little or No Risk to the Environment (PLONOR), and the OCNS Chemical Hazard and Risk Management (CHARM).

The OCNS is based upon the OSPAR Harmonised Mandatory Control Scheme (HMCS) developed through the OSPAR Decision 2000/2 (as amended) on a harmonised mandatory control system for the use and discharge of offshore chemicals.

The Harmonised Offshore Chemical Notification Format (HOCNF) applies to chemicals used in connection with offshore exploration and production activities in the OSPAR maritime area. Chemical manufacturers must complete a HOCNF registration for each chemical product. Once registered and approved, each chemical product will receive a certificate of use/template and will be placed on the list of registered products. This list contains all chemical products certified for use offshore.

#### 4.2.2. Quantification of Chemical Use and Discharge

Information on the quantities of chemicals to be used and discharged should be recorded, based on either standardised reference installations or, where appropriate; on-site specific use and discharge. The quantification of chemicals will allow chemical use and discharge in the Mediterranean to be monitored, with the potential for reporting on the levels of chemical use and discharge in the region.

The measurement or calculation, documentation, and reporting of chemical use and discharge (volumes, rates and characteristics) are also required as part of IMAP's Operator Environmental Monitoring Programme.

#### 4.2.3. Chemical Risk Assessment/Modelling

The following section uses the procedure described by the OCNS and HMCS, as an example of best practice, which can be readily adopted for use in the Mediterranean. An assessment of the potential risks to the environment as a result of the use and/or discharge of primary and/or contingency chemical, should be undertaken. Chemicals which have been assigned as PLONOR will need to be included on the permit application but do not need any further modelling or risk assessment. Chemicals which have the potential to cause risk will require a risk assessment using modelling software such as CHARM.

The risk assessment modelling is based on the ratio between the Predicted Environmental Concentration (PEC) derived from data relating to individual substances or preparation characteristics and the conditions of use, and the Predicted No-effect Concentration (PNEC) derived from toxicity tests conducted to agreed protocols. The PEC:PNEC ratio facilitates informed assessments of the risk for each usage and/or discharge scenario, which can then be considered in the light of local sensitivities.

A site-specific risk assessment should be undertaken using ecotoxicological information to calculate a Risk Quotient (RQ) using installation specific data, using the CHARM model. The CHARM model is not applicable for all substances, depending on their biodegradation value, bioconcentration and molecular weight. Specific chemical and toxicity data required to calculate RQ will be available from the chemical suppliers on the product templates. The calculations of the RQ Chemicals with functions for which the CHARM model has no algorithms are ranked by applying the OCNS hazard groups instead.

The risk assessment should consider the toxicity of the chemicals present in a discharge, calculate the dispersion/dilution rate and, where there is the potential for effects upon local sensitivities such as spawning grounds, should estimate the area of potential biological effect. The risk assessment should include coherent rationale for the use of the selected chemical products balanced with the potential for adverse effects on the local environment. The assessment should also consider operational and commercial requirements for product use, and/or refer to monitoring data or specific knowledge that enables a more accurate prediction of the chemical fate and effects.

#### 4.2.4. Justification for Use and Discharge of OCNS Chemicals with Substitution Warnings

An important part of the HMCS is the identification and phasing out of harmful chemicals. OSPAR has developed lists of harmful chemicals (OSPAR List of chemicals for Priority Action) which should be phased out and have provided these chemicals with a substitution warning. Operators should try and avoid using products with a substitution warning if an appropriate alternative is available. A chemical with a substitution warning will be identified on the manufacturer's chemical template.

If a chemical is, or contains, a substance that has been assessed as an OSPAR Candidate for Substitution, the use of the chemical must be justified including, where appropriate, a description of relevant risk mitigation measures. Consideration of alternative products to demonstrate whether they would represent a lower environmental risk should also form part of the overall risk management process.<sup>72</sup>

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<sup>72</sup> Deletion of details on chemical permitting proposed by one observer and agreed by the Secretariat, on the basis that details on what chemicals will be used are not usually available at the EIA stage. Therefore, this section is outside the scope of the current document. Instead, reference to the Common Standards and Guidance on the Disposal of Oil and Oily Mixtures and the Use and Disposal of Drilling Fluids and Cuttings (Decision IG.24/9 Annex I) and the planned guidance on the use and discharge of harmful or noxious substances and material is made (paragraph 114)

114. Details on the use and discharge of chemical additives are provided in separate guidance documents, including the Common Standards and Guidance on the Disposal of Oil and Oily Mixtures and the Use and Disposal of Drilling Fluids and Cuttings (Decision IG.24/9 Annex I) and the planned guidance on the use and discharge of harmful or noxious substances and material<sup>73</sup>.

#### 4.3. Regulator Review and Consultation

115. Environmental assessment (and chemical permit)<sup>74</sup> applications will be reviewed by the Competent Authority and may also be subject to review by additional statutory consultees. Once all statutory requirements are met, the Competent Authority will issue a permit to undertake the proposed work. The permit may contain specific operational, temporal and reporting conditions/restrictions related to the proposed activities. Environmental assessment (and chemical permit applications)<sup>75</sup> is not subjected to public consultation, so typically the permitting process will be much quicker than for activities that require an EIA.

#### 4.4. Decision Making (Consenting)

116. When considering approval for environmental assessment (and chemical permit applications)<sup>76</sup>, consultee comments will be taken into consideration along with the outcome of the Competent Authority's review. If the information provided in the environmental assessment is acceptable, there are no objections from consultees and the Competent Authority is satisfied that the activity will not result in any significant adverse effects, the approval will be granted. If the Competent Authority is not satisfied, and considers the activity has the potential to cause significant adverse environmental effects, the application will be rejected. The Competent Authority will provide advice on how to proceed in this instance.

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<sup>73</sup> See footnote 72

<sup>74</sup> See footnote 72

<sup>75</sup> See footnote 72

<sup>76</sup> See footnote 72

## 5. Bibliography

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**ANNEX I**

**Reference documents**

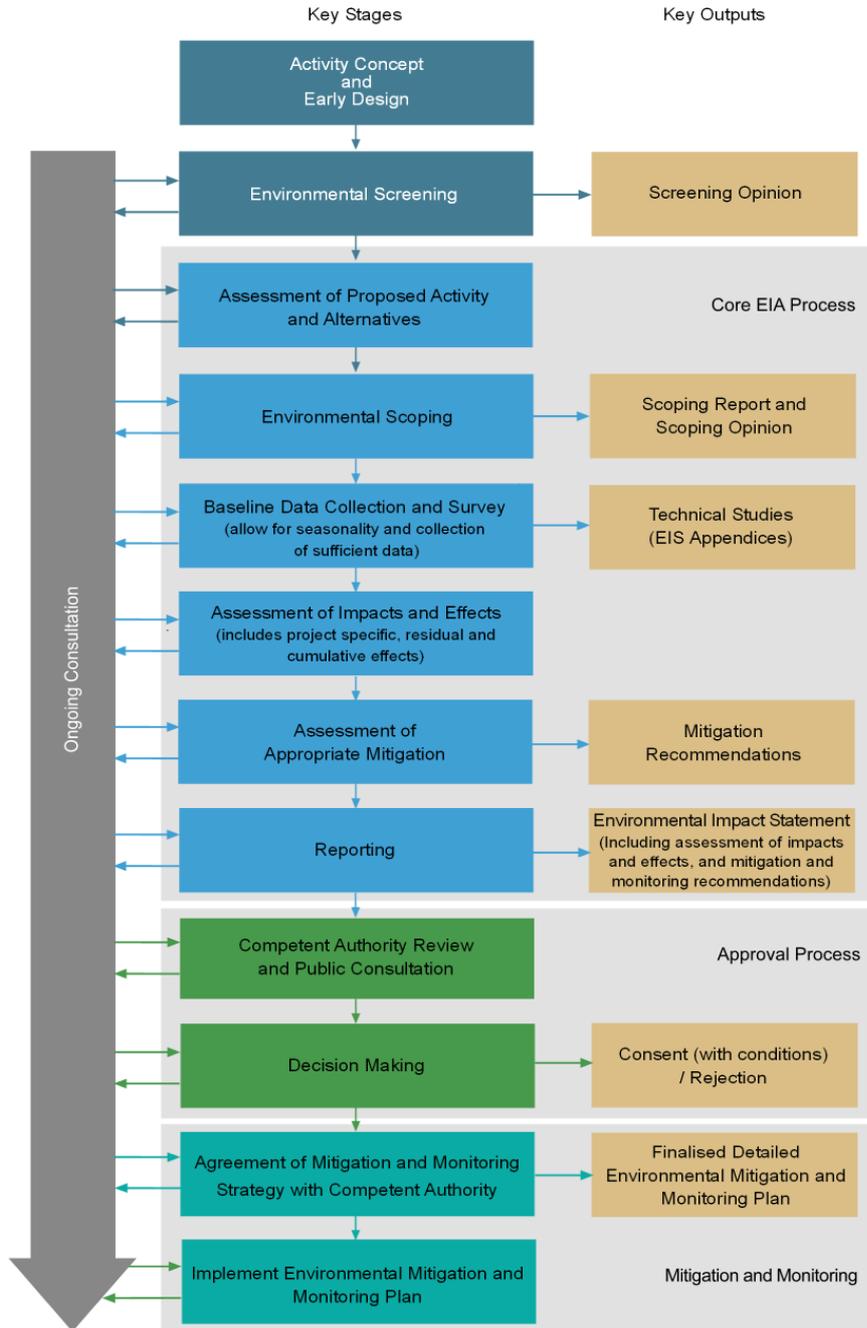
### Reference documents

- BEIS Offshore Petroleum Regulator for the Environment and Decommissioning 2020. The Offshore Oil and Gas Exploration, Production, Unloading and Storage (Environmental Impact Assessment) Regulations 2020 – A Guide  
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<http://ec.europa.eu/environment/eia/eia-studies-and-reports/guidel.pdf>
- European Union. 2001c. Guidance on EIA – EIA Review.  
<http://ec.europa.eu/environment/eia/eiaguidelines/g-review-full-text.pdf>
- European Union. 2013c. Guidance on the application of the environmental impact assessment procedure for large-scale transboundary projects.  
<http://ec.europa.eu/environment/eia/pdf/Transboundry%20EIA%20Guide.pdf>.
- IOGP 2020. Environmental management in the upstream oil and gas industry. IOGP Report 254.  
<https://www.iogp.org/bookstore/product/environmental-management-in-the-upstream-oil-and-gas-industry/>
- REMPEC/WG.45/INF/16 Rational for the draft guidelines for the conduct of the Environmental Impact Assessment (EIA) - and references therein.
- REMPEC/WG.35/INF.3 Study on International Best Practices - and references therein.

## **ANNEX II**

### **Key stages and outputs of the EIA process**

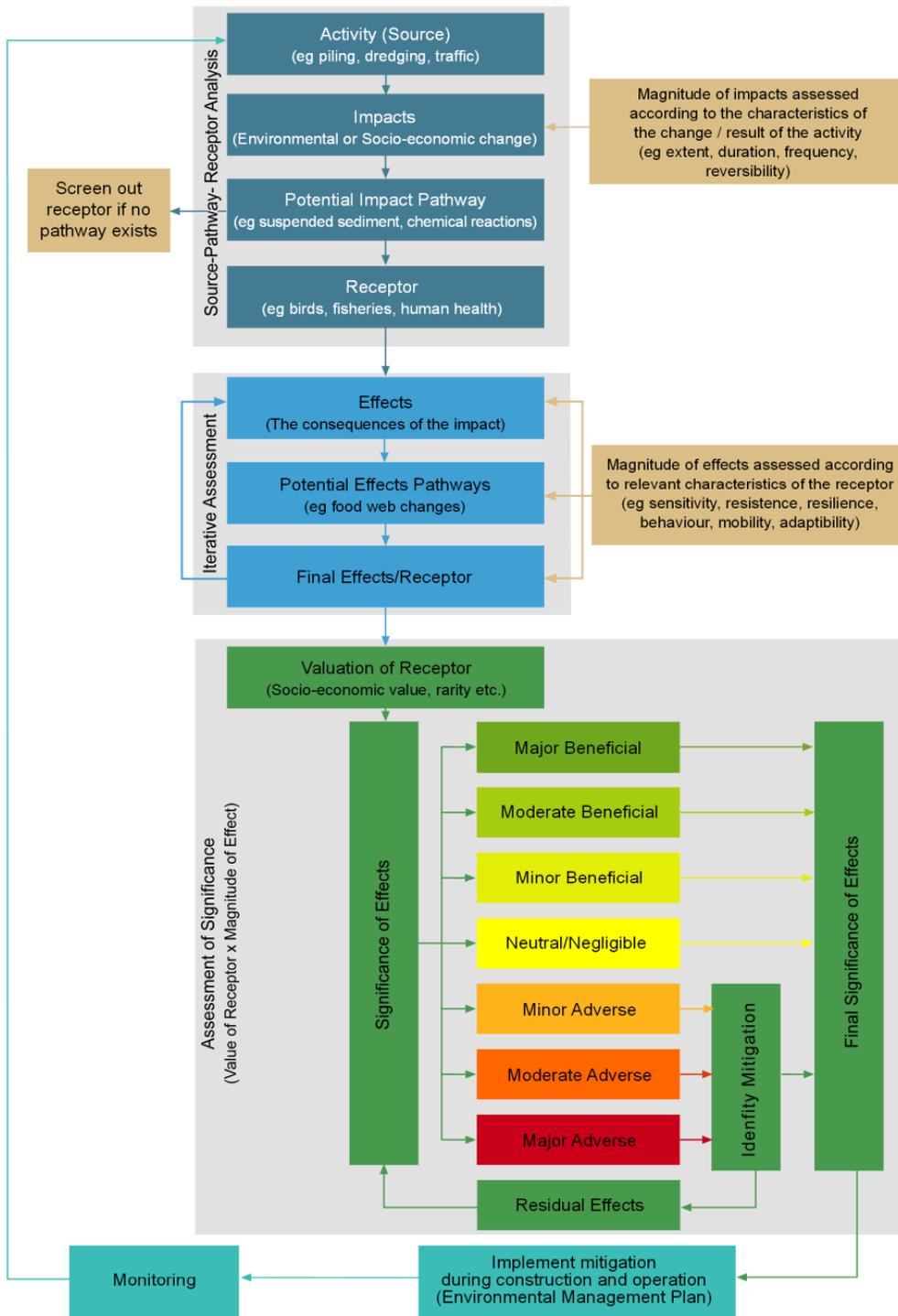
**Key stages and outputs of the EIA process**



**ANNEX III**

**Source-Pathway-Receptor analysis, assessment of significance of effects, and implementation of mitigation and monitoring measures**

**Source-Pathway-Receptor analysis, assessment of significance of effects, and implementation of mitigation and monitoring measures**



**ANNEX IV**

**Overview of structural changes**

| Sequence of sections and sub-sections in previous version<br>(UNEP/MED WG.476/3/Corr.2/L4)           |   | Revised sequence of sections and sub-sections in current version<br>(EP/MED WG.498/3) |   |
|--|---|---|---|
| Section 1.<br>Introduction   |   | Section 1.<br>Introduction  | 1.1. The EIA Process<br>1.2. EIA Terminology  |
| Section 2.<br>EIA<br>Screening –<br>When is an<br>EIA<br>Required?                                   | 2.1. Obtaining a Screening Opinion<br>2.2. Activities requiring an EIA<br>2.3. Activities requiring an environmental assessment not necessarily through the EIA procedure (hereinafter referred to as environmental assessment)<br>2.4. Exemptions for Undertaking an EIA   | Section 2.<br>EIA<br>Screening  | 2.1 When is an EIA Required?<br>2.2 Obtaining a Screening Opinion<br>2.3 Activities requiring an EIA<br>2.4 Exemptions for Undertaking an EIA   |
| Section 3.<br>EIA Guidance<br>for Offshore<br>Activities   | 3.1. EIA Terminology<br>3.2. The EIA Process<br>3.3. Scoping<br>3.4. Impact Assessment Methodology Framework<br>3.5. Mitigation Measures and Residual Effects<br>3.6. Cumulative Effects<br>3.7. Baseline Data Collection<br>3.8. Assessment of Impacts and Effects<br>3.9. Mitigation and Monitoring<br>3.10. The Environmental Impact Assessment Report<br>3.11. Regulator Review and Public Consultation<br>3.12. Decision Making (Consenting) | Section 3.<br>EIA Guidance<br>for Offshore<br>Activities                              | 3.1. Scoping<br>3.2. Baseline Data Collection<br>3.3. Impact Assessment Methodology Framework<br>3.4. Description and assessment of Impacts and Effects<br>3.5. Cumulative and Transboundary Effects<br>3.6. Mitigation and Offsetting<br>3.7. The Environmental Impact Assessment Report<br>3.8. Regulator Review and Public Consultation<br>3.9. Decision Making (Consenting) |
| Section 4.<br>Guidance for<br>the conduct of<br>environmental<br>assessment as<br>per section<br>2.3 | 4.1 Permitting<br>4.2. Permitting for the Use and Discharge of Chemical Additives<br>4.3. Regulator Review and Consultation<br>4.4. Decision Making (Consenting)<br>4.5. Bibliography   | Section 4.<br>Guidance for<br>the conduct of<br>environmental<br>assessment           | 4.1 Permitting<br>4.2. Permitting for the Use and Discharge of Chemical Additives<br>4.3. Regulator Review and Consultation<br>4.4. Decision Making (Consenting)  |
|  |   | Section 5.<br>Bibliography  |   |