



UNITED
NATIONS

EP

UNEP/MED WG.461/Inf.5



UNEP



UNITED NATIONS
ENVIRONMENT PROGRAMME
MEDITERRANEAN ACTION PLAN

10 May 2019
Original: English

Fourteenth Meeting of SPA/BD Thematic Focal Points

Portorož, Slovenia, 18-21 June 2019

Agenda item 5 Conservation of Species and Habitats

5.4. Mediterranean Offshore Guidelines and Standards: Guidelines for the Conduct of Environmental Impact Assessment (EIA)

Mediterranean Offshore Guidelines and Standards: Draft Guidelines for the Conduct of Environmental Impact Assessment (EIA)

For environmental and economy reasons, this document is printed in a limited number and will not be distributed at the meeting. Delegates are kindly requested to bring their copies to meetings and not to request additional copies.

Table of Contents

1. Project Objectives.....	2
2. Relevant Articles of the Offshore Protocol	2
Offshore Protocol Section II – Authorisation System	2
Article 4 – General Principles	2
Article 5 – Requirements for Authorisations.....	3
Article 6 – Granting of Authorisations	3
Article 7 – Sanctions	3
ANNEX IV – ENVIRONMENTAL IMPACT ASSESSMENT	3
2. Methodology.....	4
2.1. Study on International Best Practices	4
2.2. Consultation with Contracting Parties and other stakeholders	5
2.3. EcAp and IMAP	7
3. Legislative Background.....	10
3.1. Summary of Legal Instruments and Best Practices	10
Espoo Convention	10
Aarhus Convention.....	10
European Union.....	11
UK	11
United States.....	12
Equator Principles	12
International Association of Oil and Gas Producers (IOGP).....	12
4. Bibliography	14

1. Project Objectives

1. There are numerous international, regional and national standards which are applicable to the exploration and exploitation of the marine environment with many countries also having their own standards, guidelines and best practice. This can lead to differences in approach within the same region.

2. The overall objective of the Environmental Impact Assessment (EIA) standards and guidelines for offshore activities is to ensure that Contracting Parties to the Barcelona Convention harmonise regional practices for offshore activities in the Mediterranean region as per the Mediterranean Offshore Action Plan and Offshore Protocol.

3. In accordance with the recommendations identified in Section 5.2.1. of the Study on International Best Practices and considering the review of international best practices under Section 3.3.4 of named study, the Environment Impact Assessment guidelines for Offshore Activities will also address the following gaps:

- Determine when an EIA is required, and when an Environmental Survey/Appraisal is sufficient;
- Determine requirements to be included within an Environmental Survey/Appraisal if an EIA is not required;
- Develop a guidance document for Operators specifying the requirements for Environmental Survey/Appraisal.

4. For the purpose of this EIA standards and guidelines document, the term Environmental Survey has been replaced with Environmental Appraisal to avoid confusion with physical baseline environmental surveys. An Environmental Appraisal is a permit application which can be used to assess environmental impacts of proposed activities on the environment when a full EIA is not required.

2. Relevant Articles of the Offshore Protocol

5. The Offshore Protocol is composed of multiple articles and annexes detailing topics relevant for the protection of the Mediterranean Sea against pollution as a result of exploration and exploitation. The relevant articles and annexes of the Offshore protocol for the formation of EIA standards and guidelines have been summarised below.

Offshore Protocol Section II – Authorisation System

Article 4 – General Principles

6. All activities concerning exploration and/or exploitation of the resources in the Protocol Area will require authorisation from the Competent Authority prior to commencement. Authorisation will only be granted if the authority is satisfied that the installation has been constructed in accordance with international standards and practice and that the operator has the technical competence and the financial capacity to carry out the activities.

7. 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 laid down in the authorisation. When considering approval of the siting of an installation, the

Contracting Party shall ensure that no detrimental effects will be caused to existing facilities by such siting, in particular, to pipelines and cables.

Article 5 – Requirements for Authorisations

8. An application for authorisation made to the Competent Authority must describe the effects of the proposed activities on the environment. The Competent Authority also requires information on geographical location, safety measures, contingency plan, operator details, monitoring and decommissioning procedures, precautions for specially protected areas and details of financial liability.

9. Environmental screening may result in the Competent Authority requiring an EIA to be prepared in accordance with Annex IV of the Protocol if significant effects on the environment are discovered. However, environmental screening may also result in the Competent Authority deciding, for scientific research and exploration activities, to limit the scope of the requirements, in the light of the nature, scope, duration and technical methods employed in the activities and of the characteristics of the area.

Article 6 – Granting of Authorisations

10. The Competent Authority will examine the applications against the requirements listed in the Protocol. 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.

11. The Parties shall notify the Organisation when authorisation is granted or renewed. A register of all authorised installations in the Protocol Area should be kept by the Organisation.

Article 7 – Sanctions

12. Each Party shall prescribe sanctions to be imposed for breach of obligations, for non-observance of the national laws or regulations, or for non-fulfilment of the specific conditions attached to the authorisation.

ANNEX IV – ENVIRONMENTAL IMPACT ASSESSMENT

13. An EIA for a proposed activity must contain:

- Methodology;
- Geographical boundaries;
- Environmental baseline;
- Nature, aims, scope and duration;
- Project description and alternatives;
- Effects on the environment;
- Mitigation measures;
- Monitoring plan; and
- Cumulative impacts.

14. Each Contracting Party should take into account the international rules, standards and recommended practices and procedures, by which environmental impact assessments are to be evaluated.

2. Methodology

15. Work has already been undertaken to date under the Barcelona Convention and its protocols, and sub-groups in analysing and drawing inference regarding common best practice in the offshore environment. The following works have been taken into consideration during the formulation of the common standards, where relevant and applicable:

- Barcelona Convention and its Protocols;
- Offshore Protocol;
- EcAp Med Project;
- Mediterranean Offshore Action Plan;
- Terms of Reference of the Barcelona Convention Offshore Oil and Gas Group (BARCO OFOG);
- Study on International Best Practices (REMPEC/WG.35/INF.3);
- UNEP/MAP's Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast and Related Assessment Criteria (IMAP);
- European Commission Guidance on EIA Screening, Scoping, assessment of indirect and cumulative impacts as well as impact interactions and EIS review;
- Offshore Petroleum Regulation for Environment and Decommissioning of the United Kingdom Department of Business, Energy and Industrial Strategy. The Offshore Petroleum Production and Pipelines (Assessment of Environmental Effects) Regulations 1999 (As amended) – A Guide;
- Managing oil and gas activities in coastal areas of the International Association of Oil and Gas Producers (IOGP);
- Harmonised Mandatory Control Scheme of the Convention for the Protection of the Marine Environment of the North-East Atlantic (the OSPAR Convention);
- Offshore Chemical Notification Scheme of the Centre for Environment, Fisheries and Aquaculture Science (Cefas).

2.1. Study on International Best Practices

16. The Study on International Best Practices provides an in-depth analysis of existing recognised international best practices and regulations relevant to the implementation of the Offshore Protocol and a comparative analysis of existing legislative and administrative framework in the region in order to highlight potential gaps between the Offshore Protocol requirements and the existing laws or practices. The Study on International Best Practice describes how the Offshore Protocol requires a screening, and not a compulsory/systematic EIA of the environmental effects of proposed activities. However, in many countries an EIA was found to be compulsory for exploration and exploitation.

2.2. Consultation with Contracting Parties and other stakeholders

17. A questionnaire based on the provisions of the Offshore Protocol, was circulated to all Contracting Parties on 21 September 2017. The questionnaire requested all Contracting Parties to provide information with regard to EIA regulations and the consent process for offshore oil & gas activities in each country.

18. The aim for the questionnaire, was to compare existing EIA legislative and consenting framework for offshore oil & gas activities in the region in order to highlight potential similarities or differences between countries.

19. To date, six (6) out of the twenty-two (22) Contracting Parties and four (4) internationally operating oil companies and the Norwegian Oil & Gas Association on behalf of operators on the Norwegian Continental Shelf have responded, and these responses are summarised in Appendix 2.

20. The Study on International Best Practices highlighted potential gaps and differences between the Offshore Protocol EIA provisions with that of existing national laws and practices.

21. The Study on International Best Practices found that in eleven (11) of the Contracting Parties, an EIA is compulsory for exploration and exploitation operations. Many of the contracting parties to the Offshore Protocol are also Contracting Parties to the EU EIA Directive (85/337/EEC) and the Espoo Convention which require an EIA if the proposed activities are likely to have significant effects on the environment. Table 1.1 lists the countries that require an EIA and identifies any gaps and differences between the Offshore Protocol and existing national legislation.

Table 1.1: Countries with Compulsory EIA Requirements

Country	Legislation/Regulations	Gaps and Differences Between the Offshore Protocol and Existing National Legislation <i>(The Offshore Protocol requires a screening (and not a compulsory/systematic EIA) of the environmental effects of proposed activities)</i>
Algeria	Executive Decree n°08-312 laying down the conditions for EIA approval for Hydrocarbon activities	N/A
Croatia	Environmental Protection Act (Official Gazette No. 110/07) and Regulation on Environmental Impact Assessment (Official Gazette No. 61/14)	EIA is required for exploitation
Cyprus	Under Law No. 20(III)/2001, Environmental Impact Assessment Law No. 140 (I)/2005.	An EIA is required for exploitation activities according to Annex I of the EU EIA Directive 2011/92/EU. A preliminary EIA is required for

Country	Legislation/Regulations	Gaps and Differences Between the Offshore Protocol and Existing National Legislation <i>(The Offshore Protocol requires a screening (and not a compulsory/systematic EIA) of the environmental effects of proposed activities)</i>
		exploration drilling according to Annex II of the same Directive.
France	Decree 2006-649; Decree 2011-2019 related to the impact assessment, Environmental Code Article R. 122-4 and R. 122-5.	An EIA is compulsory for exploration and exploitation of more than a 100 m depth.
Greece	Environmental Impact Assessment for Projects/Activities Law 4014/2011 and Ministerial Decision 1958/2012 set slightly different requirements for EIA related to exploration drilling than the ones related to exploitation activities.	An EIA is required for exploration and exploitation activities.
Italy	Legislative Decree 152/2006 (Environmental Code), as amended by Legislative decree n. 104/2017 (transposing the new EIA Directive 2014/52/UE).	<p>An EIA is required for all projects listed on Annex II and III of the Environmental Code. With projects listed on Annex II-bis and IV subject to a screening process.</p> <p>An EIA is required for the drilling of wells for the exploration and exploitation of liquid and gaseous hydrocarbons onshore and offshore.</p> <p>An EIA is required for the exploitation of liquid and gaseous hydrocarbons onshore and offshore where the amount extracted exceeds 500 t/day in the case of petroleum and 500 000 m³/day in the case of natural gas.</p> <p>An EIA is required for the geophysical survey through the use of airgun technique or explosive.</p>
Israel	Planning and Building Law, 1965 (only within territorial waters)	An EIA is required for exploration and exploitation activities within the EEZ.

Country	Legislation/Regulations	Gaps and Differences Between the Offshore Protocol and Existing National Legislation <i>(The Offshore Protocol requires a screening (and not a compulsory/systematic EIA) of the environmental effects of proposed activities)</i>
Libya	Law 15 of 2003 on Protecting and Improving the Environment. National EIA Guidelines.	N/A
Morocco	Law No. 21-90 on research and exploitation of hydrocarbon deposits amended and supplemented by Law No. 27-99.	N/A
Spain	Legislative Royal Decree 1/2008, approving the consolidated text of the Environment Impact Assessment of Projects Law (RDL 1/2008), EIA Regulation: RD 1131/1988 (State)	N/A
Turkey	Environmental Impact Assessment Regulation 16/12/2003-25318.	The requirements for the EIA do not contain the geographical area where the activity is envisaged, including safety zones.

2.3. EcAp and IMAP

22. The Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast and Related Assessment Criteria (IMAP) describes the strategy, themes, and products that the Barcelona Convention Contracting Parties are aiming to deliver, through collaborative efforts inside the UNEP/MAP Barcelona Convention, over the second cycle of the implementation of the Ecosystem Approach Process (EcAp process), in order to assess the status of the Mediterranean Sea and coast.

23. The application of the EcAp and IMAP builds on relevant existing monitoring and assessment practices in the Mediterranean and in other regions. In the context of the development of these Mediterranean Monitoring Procedures and Programmes, a list of qualitative indicators relevant to the Offshore Monitoring Programme and related Guidance fact sheets of the Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast and Related Assessment Criteria (IMAP) were developed and presented during the First Meeting of the Barcelona Convention Offshore Oil and Gas Group (OFOG) Sub-Group on Environmental Impact of Offshore Monitoring Programmes, held in Athens, Greece, 3-4 April 2017 (UNEP(DEPI)/MED WG.434/6).

24. The Quality Indicators are succinct qualitative descriptions that clearly specify the conditions, which must be fulfilled for an Indicator to be considered to be in Good Environmental Status. During the meeting, nineteen (19) Quality Indicators were selected for further review by the Contracting Parties from an initial list of twenty-seven (27) Common Indicators, as specified for the Ecological Objectives (EO) of IMAP. The Meeting expressed concern that this was ambitious compared to current monitoring practices in Mediterranean countries.

25. As part of this study on EIA regional standards and guidelines, a questionnaire was sent to all Contracting Parties to identify which of the proposed 19 IMAP indicators are relevant to each individual Contracting Party, with a view to consider future development of a mandatory set of indicators for offshore monitoring, taking into account the different nature of offshore activities, as not all indicators may be relevant for different activities and in different locations (such as deep sea drilling and continental shelf drilling). Response to the questionnaire has been limited, with only 3 responses received to date, with regard to the Common indicators. The completed questionnaire responses that were received are summarised in Appendix 3.

26. Whereas the differences between an EIA and a Regional Monitoring Programme were noted during the first meeting of the Barcelona Convention OFOG Sub-Group on Environmental Impact of Offshore Monitoring Programmes in Greece, 3-4 April 2017, it was also recognised that data collected during an EIA could serve as a baseline for monitoring activities, which resulted in the development of the List of Parameters Document (UNEP(DEPI)/MED WG.434/4).

27. The objective of the List of Parameters Document, in the context of the development of a Mediterranean Monitoring Procedures and Programmes, was to define the list of parameters to be monitored by Operators, involved in the exploration and exploitation of the Offshore Oil and Gas Activities, based on an analysis of currently available methodology for monitoring, and data availability.

28. The List of Parameters document describes the requirement for Offshore Operators to design, undertake and assess the performance of an Operator Environmental Monitoring Programme throughout the lifecycle of the project activity per requirements of the Environmental License. The Operator Environmental Monitoring Programme should comprise of Operator Field Environmental Monitoring, including Baseline Environmental Evaluation (as part of the EIA process); Operator Facility Environmental Monitoring (as part of the permitting process); and Operator Environmental Performance Assessment (as part of the Operator's Environmental Management System).

29. The purpose of the monitoring programme, and specifically of the "Offshore Protocol Monitoring Programme" (OPMP), is to provide an overview of environmental status and trends over time as a result of offshore exploration and exploitation activities of the continental shelf and the seabed and its subsoil (here within referred to as "offshore activities").

30. However, whereas it is acknowledged that individual environmental baseline and monitoring studies undertaken for offshore activities may form a valuable contribution to the overall OPMP, it is believed that the suggested monitoring programme is too broad, and should be more focused on a smaller number of common indicators that are directly relevant and relate to the potential impact and effects of oil and gas operations.

31. Therefore, it is advised to narrow the scope and focus on the following common indicators, currently still under consideration:

- 1) Common Indicator 1: Habitat distributional range, to also consider habitat extent as a relevant attribute (EO1);
- 2) Common Indicator 2: Condition of the habitat's typical species and communities (EO1);
- 3) Common Indicator 15: Location and extent of the habitats impacted directly by hydrographic alterations (EO7);
- 4) Common Indicator 17: Concentration of key harmful contaminants measured in the relevant matrix (EO9, related to biota, sediment, seawater);
- 5) Common Indicator 18: Level of pollution effects of key contaminants where a cause and effect relationship has been established (EO9);
- 6) Common Indicator 19: Occurrence, origin (where possible), and extent of acute pollution events (e.g. slicks from oil, oil products and hazardous substances) and their impact on biota affected by this pollution (EO9);
- 7) Candidate Indicator 26: Proportion of days and geographical distribution where loud, low, and mid-frequency impulsive sounds exceed levels that are likely to entail significant impact on marine animals (EO11);
- 8) Candidate Indicator 27: Levels of continuous low frequency sounds with the use of models as appropriate (EO11).

32. Common Indicators 1, 2, 15, 17 and 18 are the key monitoring indicators for the oil and gas industry, and it is advised to focus the main monitoring effort on these 5 indicators. It is further advised to limit monitoring parameters to be monitored by oil and gas operators to seabed sediment data (grain size, colour and texture; potential metal/organic contaminants; biota numbers and species for community structure analysis). The monitoring must cover 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. Further guidance on monitoring surveys in Chapter 5 of Output 3: Common offshore standards and guidelines on the disposal of oil and oily mixtures, the use and disposal of drilling fluids and cuttings and analytical measurements.

33. Common Indicator 15 should be mapped as part of the MEBS and subsequently be monitored on regular intervals, depending on location, and before any changes to the development (e.g. installation of new subsea infrastructure, such as pipelines).

34. Common Indicator 17 should also focus on seabed parameters and only use sedentary species living in the local seabed (benthos) and on the offshore installation itself (e.g. mussels on platform legs or in cages), as these can be directly linked to a specific installation.

35. Common Indicator 19 relates to unplanned or accidental pollution events, and these should be monitored, on a case by case basis, when such events occur.

36. The monitoring effort of Candidate Indicators 26 and 27 should focus on the low frequency sound produced during the acquisition of certain geophysical data, such as seismic surveys. Other activities that may produce low frequency sound are piling operations during platform installation, and the use of explosives during decommissioning.

3. Legislative Background

37. Currently all Contracting Parties to the Barcelona Convention who contributed to the study on International Best Practices and responded to the questionnaire have adopted EIA legislation into their national laws.

3.1. Summary of Legal Instruments and Best Practices

38. The international legislation and best practices summarised below have been used to inform the EIA and Environmental appraisal guidance for offshore activities in the Mediterranean described in Chapter 4 and 5, respectively.

Espoo Convention

39. The Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention), which entered into force in 1997, requires Parties to assess the environmental impact of activities which have significant adverse transboundary impact in another state.

40. Activities that are listed as having the potential for significant transboundary impacts include large-diameter oil and gas pipelines and offshore hydrocarbon production. The Party of origin must ensure that an EIA is undertaken prior to a decision to authorise or undertake the proposed activity.

41. Activities not listed as part of the Espoo Convention, but have the potential to cause a significant adverse transboundary impact should also be assessed following the criteria set out in the Espoo Convention. Concerned Parties must agree that the impacts result in the requirement of an EIA.

42. The Espoo Convention lists element which must be included within an EIA together with provisions for notification of affected States, post-project analysis, bilateral and mutual cooperation, research programs, and settlement of disputes.

43. The following Contracting Parties to the Barcelona Convention are also parties to the Espoo Convention: Albania, Bosnia and Herzegovina, Croatia, Cyprus, France, Greece, Italy, Malta, Montenegro, Slovenia, and Spain.

Aarhus Convention

44. The Aarhus Convention establishes rights of the public with regard to the environment. The Convention requires an increase in the level of public participation in environmental decision-making, access to environmental information and the right to challenge decisions.

45. The following Barcelona Convention parties are also parties to the Aarhus Convention: Albania, Bosnia and Herzegovina, Croatia, Cyprus, EU, France, Greece, Italy, Malta, Montenegro, Slovenia, and Spain.

European Union

46. The European Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment (as amended by Directive 2014/52/EU) contains a legal requirement to carry out an EIA of defined public or private projects likely to have significant effects on the environment, prior to their authorisation.

47. Directive 97/11/EC brought the Directive in line with the UNECE Espoo Convention on EIA in a Transboundary Context.

48. Projects which the directive considers as having significant effects on the environment require an EIA. For some projects, the national authorities decide whether an EIA is needed through a screening procedure.

49. The EIA procedure includes a scoping stage to establish the exact scope and boundaries of the project, gather environmental baseline data, and identify any data gaps; the EIA report providing information on the environmental impacts; consultation with competent authorities and the public; and, a final decision.

50. The EU have issued guidance documents for developing an EIA and reviewing an EIS, which include current state of good practice. A selection of these guidance documents, applicable as best practices for the Offshore Protocol includes guidance on screening, scoping, assessment and review.

UK

51. The Offshore Petroleum Production and Pipelines (Assessment of Environmental Effects) Regulations 1999 implement the requirements of EC Directive 85/337/EEC in the UK for offshore oil and gas operations. The regulations set out criteria for projects which require a full EIA and projects which require an EIA Direction.

52. If an EIA is to be undertaken for an offshore development, an Environmental Statement (ES) must be submitted to the Competent Authority and made available to any interested party for comment prior to approval by the State.

53. An EIA Direction requesting that a full ES is not required should be submitted to the Competent Authority will be considered on an individual basis. Approval or rejection will depend on a number of factors including the nature, timing and location of the project, the environmental sensitivity of the area and, whether there will be any significant adverse impact.

54. The regulations also provide criteria on activities which do not require submission of an EIA provided they are unlikely to have a significant effect on the environment. Excluded projects will be assessed on an individual basis by the Competent Authority.

55. The Competent Authority has prepared guidance notes which detail the information the ES and EIA Direction must contain. The documents must describe the proposed development and identify any impacts the activities are likely to have on the receiving environment, together with any measure to

reduce the significance of any impacts. Consent will not be granted until the State is satisfied with the environmental information provided and that there will be no significant effect on the environment.

United States

56. The Competent Authority will consider the information provided in an Environmental Assessment (EA) to determine if the proposed activity would result in significant impacts. If the Competent Authority determines that the activity would not result in significant effects, an Environmental Impact Statement (EIS) will not be required. An EIS will be required if any significant impacts are identified during the EA.

57. The Competent Authority has prepared guidance which detail the information the EA must contain. Essentially, the document must describe the proposed development and identify any impacts it is likely to have on the receiving environment together with any measure to reduce the significance of any impact.

58. The contents of the EIS are determined through a scoping process where consultation with the public, interested parties and Competent Authorities is an integral part. The Competent Authority develops analytical scenarios based on possible impacts, which in turn are analyses.

59. The Competent Authority has prepared guidance which detail the information the EIS must contain. The document must describe the proposed development, alternatives, affected environment, impacts together with any measure to reduce the significance of any impact and the results from the consultations. The EIS must be made available to any interested party for comment prior to the final EIS being published.

Equator Principles

60. The Equator Principles is a risk management framework, adopted by financial institutions, for determining, assessing and managing environmental and social risk in projects and is primarily intended to provide a minimum standard for due diligence to support responsible risk decision-making.

61. Principle 2 of the Equator Principles includes Environmental and Social Assessment for a listed number of projects, the Equator Principles Financial Institution requires the client to conduct an assessment to address the relevant environmental and social risks and impacts of the proposed project. The assessment should also propose measures to minimise, mitigate, and offset adverse impacts in a manner relevant and appropriate to the nature and scale of the proposed project. The assessment documentation should include an Environmental and Social Impact Assessment (ESIA).

International Association of Oil and Gas Producers (IOGP)

62. The International Association of Oil and Gas Producers (IOGP) is a global organisation in which members identify and share best practices to achieve improvements in every aspect of health, safety, the environment, security, social responsibility, engineering, and operations. The IOGP encompasses most of the world's leading publicly traded oil and gas companies, industry associations, and major upstream service companies, both privately-owned and state-owned. IOGP has developed guidelines for various aspects of oil and gas operations, including on key activities for performing Environmental, Social and

Health Impact Assessments (IOGP Report 529) and on planning, designing, impact-assessing and managing oil and gas activities in coastal areas (IOG Report 475). Key recommendations from IOG Report 475 include carrying out environmental baseline studies, engaging and consulting with stakeholders, using Environmental and Social Impact Assessments and implementing plans to prevent or mitigate potential (primary, secondary, cumulative and perceived) impacts.

4. Bibliography

Bureau of Ocean Energy management (BOEM). 2017. BOEM website.

<https://www.boem.gov/Environmental-Assessment-Division/>

Centre for Environment, Fisheries and Aquaculture Science, 2017. Cefas website.

<https://www.cefas.co.uk/cefas-data-hub/offshore-chemical-notification-scheme/>

Department of Energy and Climate Change, 2011. *Guidance Notes on the Offshore Chemicals Regulations 2002 (as amended 2011)*.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/448262/OCR_Guidance_Notes_Revised_March_2011_.pdf

Department of Business, Energy and Industrial Strategy (BEIS), 2017. *Offshore Petroleum Regulator for Environment and Decommissioning, The Offshore Petroleum Production and Pipelines (assessment of Environmental Effects) Regulation 1999 (as amended) – A Guide*.

Equator Principles Association. 2013. *The Equator Principles III – June 2013*.

http://www.equatorprinciples.com/resources/equator_principles_iii.pdf

European Union. 2001a. *Guidance on EIA – EIA Screening*.

<http://ec.europa.eu/environment/eia/eiaguidelines/g-screening-full-text.pdf>

European Union. 2001b. *Guidance on EIA – EIA Scoping*.

<http://ec.europa.eu/environment/eia/eiaguidelines/g-scoping-full-text.pdf>

European Union. 2001b. *Guidelines for the Assessment of indirect and cumulative impacts as well as impact interactions*. <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>

Gormley, A., Pollard, S, and Rocks, S., 2011. *Guidelines for Environmental Risk Assessment and Management*. Defra, London.

Government of Canada, 2017. Government of Canada website.

<https://www.canada.ca/en/environmental-assessment-agency/services/environmental-assessments/basics-environmental-assessment.html>

Holling, C.S., 2001. Understanding the Complexity of Economic, Ecological, and Social Systems. *Ecosystems*, 4(5), pp. 390-405.

International Association of Oil and Gas Producers (IOGP), 2014. *Overview of IOGP's Environmental-Social-Health Risk and Impact Management process*. IOGP report: 529.

<https://www.iogp.org/bookstore/product/overview-of-iogps-environmental-social-health-risk-and-impact-management-process/>

International Association of Oil and Gas Producers (IOGP), 2012. *Managing oil and gas activities in coastal areas- an awareness briefing*. IOGP Report: 475.

<https://www.iogp.org/bookstore/product/managing-oil-and-gas-activities-in-coastal-areas-an-awareness-briefing/>

Miller, F., Osbahr, H., Boyd, E., Thomalla, F., Bharwani, S., Ziervogel, G., Walker, B., Birkmann, J., Van Der Leeuw, S., Rockström, J., Hinkel, J., Downing, T., Folke, C. and Nelson, D., 2010. Resilience and Vulnerability: Complementary or Conflicting Concepts? *Ecology and Society*, **15**(3), pp.11-35.

OSPAR Commission, 2017. *Hazardous Substances*. <https://www.ospar.org/work-areas/hasec/chemicals>

United nations Environment Programme Mediterranean Action Plan (UNEP/MAP), 2017a.

First Meeting of the Barcelona Convention Offshore Oil and Gas Group (OFOG) Sub-Group on the Environmental Impact of Offshore Monitoring Programmes.

https://wedocs.unep.org/bitstream/handle/20.500.11822/21486/17wg434_9_engonly.pdf?sequence=1&isAllowed=y

United Nations Environment Programme Mediterranean Action Plan (UNEP/MAP), 2017b. *First Meeting of the OFOG Sub-Group on the Environmental Impact of Offshore Monitoring Programmes. Lists of substances addressed under the Convention for the Protection of the Marine Environment of the North-East Atlantic (the 'OSPAR Convention') (i.e. LSPC and PLONOR), and by Cefas OCNS (i.e. CHARM).*

https://wedocs.unep.org/bitstream/handle/20.500.11822/17652/17wg434_inf5_engonly.pdf?sequence=1&isAllowed=y

Appendix 1¹

Comparison of existing and proposed changes to Annexes I and II of the Protocol for the Protection of the Mediterranean Sea against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil

Existing ANNEX I	Proposed Changes	Norwegian Oil & Gas Association on Behalf of Operators on the Norwegian Continental Shelf	Company A ²	Revised proposed Changes, Based on the Findings of this Study
Mercury and mercury compounds	Mercury and mercury compounds, with the exception of mercury within drilling mud/fluids and drilling cuttings up to a max 1 mg/kg dry weight in stock barite outside Specially Protected Areas (SPAs), and not in coastal or inland waters	Proposed limit for Hg in barite is <4 mg/kg for the Norwegian Petroleum Industry (marine waters) Observed limits in barite samples are low 0,03 – 0,07 µg/kg d.wght.	Estimation based on drilling fluid composition	Mercury and mercury compounds, with the exception of mercury within drilling mud/fluids and drilling cuttings up to a max 1 mg/kg dry weight in stock barite outside Specially Protected Areas (SPAs), and not in coastal or inland waters
Cadmium and cadmium compounds	Cadmium and cadmium compounds, with the exception of cadmium within drilling mud/fluids and drilling cuttings up to a maximum of 3 mg/kg	Proposed value <3 mg/kg d.wght Cd.	Thresholds: Comparison with Environmental	Cadmium and cadmium compounds, with the exception of cadmium within drilling mud/fluids and drilling cuttings up to

¹ Referred in Chapter 4.2.1 (Permitted Substances List) of document REMPEC/WG.45/13/1

² The feedback provided by Company B was: "N/A"; The feedback provided by company C was: "Regarding thresholds limits for pollutants and methodologies used, Company's Technical Guidelines require the application of the Host Country's legislation requirements. In case of gaps of the local legislations, World Bank standards are applied"; The feedback provided by Company D was: "Organisation not undertaking any current scientific work on pollutant thresholds." Therefore, no detailed response from these companies has been included in this table.

Existing ANNEX I	Proposed Changes	Norwegian Oil & Gas Association on Behalf of Operators on the Norwegian Continental Shelf	Company A ²	Revised proposed Changes, Based on the Findings of this Study
	dry weight in stock barite outside SPAs and not in coastal or inland waters		Quality Standards (EQS)	a maximum of 3 mg/kg dry weight in stock barite outside SPAs and not in coastal or inland waters
Organotin compounds and substances which may form such compounds in the marine environment ¹³	Organotin compounds and substances which may form such compounds in the marine environment ⁴	Tributyltin shall be reported	No	Organotin compounds and substances which may form such compounds in the marine environment ⁴
Organophosphorus compounds and substances which may form such compounds in the marine environment ⁴	Organophosphorus compounds and substances which may form such compounds in the marine environment ¹	Perfluorinated Alkylated Substances discharges shall be reported (PFAS and PFOS firefighting foams). Are also measured in sediment samples.	No	Organophosphorus compounds and substances which may form such compounds in the marine environment ¹

³ With the exception of those which are biologically harmless or which are rapidly converted into biologically harmless substances.

Existing ANNEX I	Proposed Changes	Norwegian Oil & Gas Association on Behalf of Operators on the Norwegian Continental Shelf	Company A ⁴	Revised proposed Changes, Based on the Findings of this Study
Organohalogen compounds and substances which may form such compounds in the marine environment	Organohalogen compounds and substances which may form such compounds in the marine environment ¹	Organohalogen compounds discharges shall be reported	No	Organohalogen compounds and substances which may form such compounds in the marine environment ¹
Crude oil, fuel oil, oily sludge, used lubricating oils and refined products	Crude oil, fuel oil, oily sludge, used lubricating oils and refined products	All oil components are reported, dispersed oil in produced water, discharges to sea, waste treated on-shore.	Yes as per MARPOL	Crude oil, fuel oil, oily sludge, used lubricating oils and refined products
Persistent synthetic materials which may float, sink or remain in suspension and which may interfere with any legitimate use of the sea	Persistent synthetic materials which may float, sink or remain in suspension and which may interfere with any legitimate use of the sea	No special report format for synthetic materials but will be included in the waste reporting and transport for handling on-shore.	No	Persistent synthetic materials which may float, sink or remain in suspension and which may interfere with any legitimate use of the sea
Substances having proven carcinogenic, teratogenic or mutagenic properties in	Substances having proven carcinogenic, teratogenic or mutagenic properties in or	Hormone disrupting chemicals and reprotoxic chemicals are reported.	No	Substances having proven carcinogenic, teratogenic or mutagenic properties in

⁴ The feedback provided by Company B was: "N/A"; The feedback provided by company C was: "Regarding thresholds limits for pollutants and methodologies used, Company's Technical Guidelines require the application of the Host Country's legislation requirements. In case of gaps of the local legislations, World Bank standards are applied"; The feedback provided by Company D was: "Organisation not undertaking any current scientific work on pollutant thresholds." Therefore, no detailed response from these companies has been included in this table.

Existing ANNEX I	Proposed Changes	Norwegian Oil & Gas Association on Behalf of Operators on the Norwegian Continental Shelf	Company A ⁴	Revised proposed Changes, Based on the Findings of this Study
or through the marine environment	through the marine environment			or through the marine environment
Radioactive substances, including their wastes, if their discharges do not comply with the principles of radiation protection as defined by the competent international organizations, taking into account the protection of the marine environment	Radioactive substances, including their wastes, if their discharges do not comply with the principles of radiation protection as defined by the competent international organizations, taking into account the protection of the marine environment	Radioactive discharges with produced water and sand/sludges are reported to national Competent Authority (NRPA) and to OSPARs Radioactive Substances Committee (RSC).	No	Radioactive substances, including their wastes, if their discharges do not comply with the principles of radiation protection as defined by the competent international organizations, taking into account the protection of the marine environment
	Polynuclear aromatic hydrocarbons (PAHs) (Polycyclic Aromatic Compounds)	Part of the regular reporting scheme to Environmental Agency.	Spot analyses	Polynuclear aromatic hydrocarbons (PAHs) (Polycyclic Aromatic Compounds)
	Oil & grease with the exception of up to 42 mg/l in any one day with the average of daily values for 30	National limit for dispersed oil in produced water is 30 mg/l. Average for the industry is 11-12 mg/l.	Measurement of quantity of dispersed aliphatic hydrocarbons	Oil & grease in production water, with the exception of permitted process discharges with an oil in water concentration of less

Existing ANNEX I	Proposed Changes	Norwegian Oil & Gas Association on Behalf of Operators on the Norwegian Continental Shelf	Company A ⁴	Revised proposed Changes, Based on the Findings of this Study
	consecutive days not exceeding 29 mg/l		measured by infra-red method	than 30 mg/l, as an average in any calendar month. The discharge concentration of oil in production water shall not exceed 100 mg/l at any time
	Floating solids	No requirement	No	--
	Foam	No requirement	No	--
	Drilling fluids and drill cuttings within 1 mile / 1.61 km / 0.87 nm from shore	Cutting piles with drilling fluids are monitored in the sea floor programme.	Percentage of NADF to the sea with cuttings and centrifugation residues (fines) shall not exceed 8% per weight (weight of base fluid by weight of dry retorted cuttings), measured with the Retorkit 50cc method. In addition, daily, the average content of NADF in the dry	Drilling fluids and drill cuttings within 1 mile / 1.61 km / 0.87 nm from shore

Existing ANNEX I	Proposed Changes	Norwegian Oil & Gas Association on Behalf of Operators on the Norwegian Continental Shelf	Company A ⁴	Revised proposed Changes, Based on the Findings of this Study
			drill cuttings discharged to the sea water shall never exceed 14% per weight	
	Non-aqueous drilling fluids (NAFs)	Cutting piles with such drilling fluids are monitored in the sea floor programme.	Percentage of NADF to the sea with cuttings and centrifugation residues (fines) shall not exceed 8% per weight (weight of base fluid by weight of dry retorted cuttings), measured with the Retorkit 50cc method. In addition, daily, the average content of NADF in the dry drill cuttings discharged to the sea water shall	Non-aqueous drilling fluids (NAFs), with the exception of NAFs associated with drill cuttings containing less than

Existing ANNEX I	Proposed Changes	Norwegian Oil & Gas Association on Behalf of Operators on the Norwegian Continental Shelf	Company A ⁴	Revised proposed Changes, Based on the Findings of this Study
			never exceed 14% per weight	
	Copper	Part of the analysis for sediment samples and for produced water (two times per year)	No	Copper
	Lead and organic lead compounds	Part of the analysis for sediment samples and for produced water (two times per year)	No	Lead and organic lead compounds
	Zinc	Part of the analysis for sediment samples and for produced water (two times per year)	No	Zinc
	Phosphorus	No	No	Phosphorus
	Aliphatic hydrocarbons	Part of the analysis for sediment samples and for produced water (two times per year)	No	Aliphatic hydrocarbons
	Tin and organic tin compounds	Part of the analysis for sediment samples and for produced water (two times per year)	No	Tin and organic tin compounds

Existing ANNEX I	Proposed Changes	Norwegian Oil & Gas Association on Behalf of Operators on the Norwegian Continental Shelf	Company A ⁴	Revised proposed Changes, Based on the Findings of this Study
	Free oil, diesel oil, formation oil	Part of the analysis for sediment samples and for produced water (two times per year)	No	Free oil, diesel oil, formation oil
	Organohalogens	Part of the analysis for sediment samples and for produced water (two times per year)	No	Organohalogens
	4- (dimethylbutylamino) diphenylamin (6PPD) (Organic Nitrogen Compounds)	No	No	4- (dimethylbutylamino) diphenylamin (6PPD) (Organic Nitrogen Compounds)
	Neodecanoic acid, ethenyl ester (Organic Esters)	No. Organic acids are included.	No	Neodecanoic acid, ethenyl ester (Organic Esters)
	Phthalate Esters	No	No	Phthalate Esters
	Dicofol, endosulfan, exachlorocyclohexane isomers (HCH), methoxychlor, pentachlorophenol (PCP), trifluralin (Pesticides/Biocides)	No	No	Dicofol, endosulfan, exachlorocyclohexane isomers (HCH), methoxychlor, pentachlorophenol (PCP), trifluralin (Pesticides/Biocides)

Existing ANNEX I	Proposed Changes	Norwegian Oil & Gas Association on Behalf of Operators on the Norwegian Continental Shelf	Company A ⁴	Revised proposed Changes, Based on the Findings of this Study
	Phenols	Part of the analysis for sediment samples and for produced water (two times per year)	No	Phenols
	Clotrimazole (Pharmaceuticals)	No	No	Clotrimazole (Pharmaceuticals)
	Musk xylene (Synthetic musks)	Don't think so.	No	Musk xylene (Synthetic musks)
	Non-aqueous based drilling fluids (except that fluid which adheres to cuttings) and small volume discharges	Part of the application for permit for activity (discharge permit) and the reporting scheme.	Content of aromatic should be less than 0.1% and less than 3% per weight: Measure performed by UV spectrometry (method of Burdett)	Non-aqueous based drilling fluids (except that fluid which adheres to cuttings) and small volume discharges
	Oil-based drilling fluids and associated cuttings	Part of the application for permit for activity (discharge permit) and the reporting scheme.	Percentage of NADF to the sea with cuttings and centrifugation residues (fines) shall not exceed 8% per weight (weight of base fluid by weight of dry retorted	Oil-based drilling fluids and associated cuttings

Existing ANNEX I	Proposed Changes	Norwegian Oil & Gas Association on Behalf of Operators on the Norwegian Continental Shelf	Company A ⁴	Revised proposed Changes, Based on the Findings of this Study
			cuttings, measured with the Retorkit 50cc method). In addition, daily, the average content of NADF in the dry drill cuttings discharged to the sea water shall never exceed 14% per weight	
	Diesel oil	Part of the application for permit for activity (discharge permit) and the reporting scheme.	No use of diesel mud	Diesel oil
	Formation oil	Part of the application for permit for activity (discharge permit) and the reporting scheme.	No	Formation oil
Does not apply to discharges which contain substances [above], that are below the limits defined jointly by the Parties and, in relation to oil,	Does not apply to discharges which contain substances above that are below the limits defined jointly by the Parties and, in relation to oil,	No comment		Annex 1 does not apply to discharges which contain substances listed above that are below the limits defined jointly by the Parties and, in relation to oil, below the limits

Existing ANNEX I	Proposed Changes	Norwegian Oil & Gas Association on Behalf of Operators on the Norwegian Continental Shelf	Company A⁴	Revised proposed Changes, Based on the Findings of this Study
below the limits defined in Article 10 of this Protocol	below the limits defined in Article 10 of this Protocol.			defined in Article 10 of this Protocol.

Existing ANNEX II	Proposed Changes	Norwegian Oil & Gas Association on Behalf of Operators on the Norwegian Continental Shelf	Company A	Revised Proposed Changes, Based on the Findings of this Study
Arsenic	Arsenic	Part of the application for permit for activity (discharge permit) and the reporting scheme. Analysed by ICP-MS (NS-EN ISO 17294-2:2016)	No	Arsenic
Lead	Lead	Part of the application for permit for activity (discharge permit) and the reporting scheme. Analysed by ICP-MS (NS-EN ISO 17294-2:2016)	No	<i>Delete from Annex 2 list, as "Lead and organic lead compounds" have been moved to Annex 1 list above</i>
Copper	Copper	Part of the application for permit for activity (discharge permit) and the reporting scheme. Analysed by ICP-MS (NS-EN ISO 17294-2:2016)	No	<i>Delete from Annex 2 list as "Copper" has been moved to Annex 1 list above</i>
Zinc	Zinc	Part of the application for permit for activity (discharge permit) and the reporting scheme. Analysed by ICP-MS (NS-EN ISO 17294-2:2016)	No	<i>Delete from Annex 2 list as "Zinc" has been moved to Annex 1 list above</i>
Beryllium	Beryllium	Not included	No	Beryllium
Nickel	Nickel	Not included	No	Nickel
Vanadium	Vanadium	Not included	No	Vanadium
Chromium	Chromium	Not included	No	Chromium

Existing ANNEX II	Proposed Changes	Norwegian Oil & Gas Association on Behalf of Operators on the Norwegian Continental Shelf	Company A	Revised Proposed Changes, Based on the Findings of this Study
Biocides and their derivatives not covered in Annex I	Biocides and their derivatives not covered in Annex I	Biocides used in the process are part of the application for permit for activity (discharge permit) and the reporting scheme.	No	Biocides and their derivatives not covered in Annex I
Selenium	Selenium	Not included	No	Selenium
Antimony	Antimony	Not included	No	Antimony
Molybdenum	Molybdenum	Not included	No	Molybdenum
Titanium	Titanium	Not included	No	Titanium
Tin	Tin	Not included	No	<i>Delete from Annex 2 list as "Tin and organic tin compounds" have been moved to Annex 1 list above</i>
Barium (other than barium sulphate)	Barium (other than barium sulphate)	Part of the application for permit for activity (discharge permit) and the reporting scheme. Analysed by ICP-MS (NS-EN ISO 17294-2:2016)	No	Barium (other than barium sulphate)
Boron	Boron	Not included	No	Boron
Uranium	Uranium	Not included	No	Uranium
Cobalt	Cobalt	Not included	No	Cobalt
Thallium	Thallium	Not included	No	Thallium
Tellurium	Tellurium	Not included	No	Tellurium
Silver	Silver	Not included	No	Silver
Cyanides	Cyanides	Not included	No	Cyanides

Existing ANNEX II	Proposed Changes	Norwegian Oil & Gas Association on Behalf of Operators on the Norwegian Continental Shelf	Company A	Revised Proposed Changes, Based on the Findings of this Study
The control and strict limitation of the discharge of the substances [...] must be implemented in accordance with Annex III [of the Protocol for the Protection of the Mediterranean Sea against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil].	The control and strict limitation of the discharge of these five substances must be implemented in accordance with Annex III of the Offshore Protocol on factors to be considered for the issue of the permits.	Analyses of produced water two times a year for other components than dispersed oil (samples several times a day)	Chemical selection based on environmental screening of toxicity, persistence and bioaccumulation	
				Substances currently listed on the OSPAR List of Chemicals for Priority Action should be phased out. Developers should try and avoid using products with a substitution warning if an appropriate alternative is available. A permit application containing any chemicals

Existing ANNEX II	Proposed Changes	Norwegian Oil & Gas Association on Behalf of Operators on the Norwegian Continental Shelf	Company A	Revised Proposed Changes, Based on the Findings of this Study
				with a substitution warning should include a robust justification for the use for these chemicals.
	Substances currently listed in the OSPAR List of Substances of Possible Concern (LSPC) require further evaluation prior to permit approval	Part of the application and reporting scheme	No	Substances currently listed in the OSPAR List of Substances of Possible Concern (LSPC) require further evaluation prior to permit approval
	Substances currently listed in the OSPAR List of Substances Used and Discharged Offshore which Are Considered to Pose Little or No Risk to the Environment (PLONOR) do not require further evaluation prior to permit approval	Part of the application and reporting scheme	No	Substances currently listed in the OSPAR List of Substances Used and Discharged Offshore which Are Considered to Pose Little or No Risk to the Environment (PLONOR) must be included on the permit application, but do not require further evaluation prior to permit approval.
	Substances currently listed in the Cefas OCNS Chemical Hazard and Risk Management (CHARM) do	Not in Norway		Substances currently listed in the OCNS Chemical Hazard and Risk Management (CHARM) as

Existing ANNEX II	Proposed Changes	Norwegian Oil & Gas Association on Behalf of Operators on the Norwegian Continental Shelf	Company A	Revised Proposed Changes, Based on the Findings of this Study
	not require further evaluation prior to permit approval			Category E do not require further evaluation prior to permit approval

Appendix 2
EIA Questionnaire response received to date

2) Is there Specific EIA Legislation in place? If yes, please provide details.	
EU	Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment as amended by Directive 2014/52/EU
Israel	Yes. Planning and Building Law, 1965 (only within territorial waters)
Italy	<p>The Second Part of the Legislative Decree n. 152/2006 (hereinafter referred to as Environmental Code) as amended by the Legislative Decree n. 104/2017 (transposition of the new EIA directive 2014/52/UE) regulates the EIA procedures (articles 4-29).</p> <p>In the Annexes II, II-bis, III and IV to the Second Part of the Environmental Code are listed the project categories subject to EIA (Annexes II and III) and to EIA screening (Annexes II-bis and IV).</p> <p>In particular, Annex II (project categories subject to mandatory EIA at national level) includes the following categories related to oil & gas activities:</p> <p>7. drilling of wells for the exploration and exploitation of liquid and gaseous hydrocarbons onshore and offshore</p> <p>7.1) exploitation of liquid and gaseous hydrocarbons onshore and offshore where the amount extracted exceeds 500 tonnes/day in the case of petroleum and 500 000 cubic metres/day in the case of natural gas</p> <p>7.2) geophysical survey through the use of airgun technique or explosive.</p> <p>Please note that in Italy, the geophysical survey for oil and gas prospecting carried out by airgun or explosive, are subject to EIA procedure even though the EIA directive doesn't require any environmental assessment for these activities.</p> <p>EIA represents a fundamental and binding stage of the development consent procedure. The EIA decree and any attached environmental conditions, issued by the Minister of the Environment and the Minister of the Cultural Heritage, is included in the decision to grant development consent which is issued by the Competent Authority (Ministry of the Economic Development).</p>
Albania	

	Law. No. 10440 dated on 07/07/2011 On ` Environmental Impact Assessment`, Annex 1/ Annex 2
Bosnia and Herzegovina	No specific; general – for the land and sea
France	Yes. EIAs are imposed by the legislative part of the Environmental Code: Articles L 122-1 to L 122-14, supplemented by the regulatory part: Articles R 122-1 to R 122-27.
Norwegian Oil & Gas Association on behalf of operators on the Norwegian Continental Shelf	Specific requirements for EIA before opening of areas for activity (Petroleum Act). Requirement for EIA as part of plan for development and operation (PDO) for a specific field. Shall cover all relevant items.
Company A	Yes. An Environmental Impact Assessment (EIA) study is systematically undertaken during the initial stage of any offshore and onshore E&P project, including seismic survey, exploratory drilling, field development and decommissioning.
Company B	Yes, Company has internally developed standards that specify when the requirement for an EIA is triggered, for example magnitude or type of project and the EIA deliverables that are required from the EIA process. Company's internal standards reference accepted international standards for EIA such as the IFC Performance Standards.
Company C	<p>The company issued Technical Guidelines for carrying-out the Environmental, Social and Health Impact Assessment process in Exploration and in Development projects, applicable to all new onshore and offshore activities.</p> <p>These Technical Guidelines describe the purpose, the basic steps, approach and timing to identify environmental, social and health aspects and timely mitigate project-related impacts through the preparation and the implementation of an ESHIA.</p> <p>The process has been developed in accordance to oil & gas industry good practices and international guidelines/standards (e.g. IPIECA, IOGP, IFC) and aims to:</p> <ul style="list-style-type: none"> • guide the user in conducting an impact assessment that integrates environmental, social and health components; • integrate ESHIA into business processes and the project lifecycle, by integrating ESHIA findings into the Exploration and Development activities at the earliest possible stages.
Company D	Environmental Performance Procedure and associated EIA Guideline
3) Are offshore oil and gas operations (>12 nm offshore) currently covered by specific EIA legislation?	
EU	

	Yes
Israel	EIA in EEZ requested by Ministry of Energy before starting of field operations.
Italy	No they aren't. In addition to general provision for EIA (see answer n.1), E&P offshore activities are prohibited within any marine protected areas and within 12 miles from coastline (article 6, c. 17 of Environmental Code). With the Law n. 208 of 28 December 2015, no new E&P activities are allowed in the areas within 12 miles offshore and current production activities are allowed to the final depletion of the field. Further information and data about the marine areas prohibited to E&P activities are available on the website of the Ministry of the Economic Development: http://unmig.mise.gov.it/unmig/cartografia/zone/zone_vietate.asp
Albania	No any technical specification
Bosnia and Herzegovina	No

France	Exploration or exploitation drilling of liquid or gaseous hydrocarbons is subject to systematic EIA (appendix of article R 122-2 of the environmental code, category 27)
Norwegian Oil & Gas Association on behalf of operators on the Norwegian Continental Shelf	Opening of areas for activity. Petroleum Act. Specific projects/fields, PDO according to Activity regulation (Petroleum Safety Authority)
Company A	The process is part of the Company general referential. This referential is applicable worldwide.
Company B	None specific for offshore activities. The process explained above to both onshore and offshore activities.
Company C	EIA process in place consists of the following steps: Screening/Scoping Phase has the objective to perform a high-level preliminary assessment of project related potential ESH impacts, to define key issues to be addressed in the ESHIA phase and assessment methodology. Baseline data in Screening/Scoping phase are usually based on secondary data sources.

	<p>The deliverables of this phase are:</p> <ul style="list-style-type: none"> • Preliminary ESHIA (Pre-ESHIA) Report; • Stakeholder and recommendation Registers • Terms of Reference (ToR) of the ESHIA Report. <p>ESHIA Phase has the following objective:</p> <ul style="list-style-type: none"> • Closure of the gaps identified in the Pre-ESHIA • Assessment of project related potential ESH impacts and opportunities; • Identification of mitigation and enhancement measures; • Identification of management and monitoring measures. <p>If identified in the Pre-ESHIA gap analysis, field activities for ESH Baseline primary data collection are generally performed in the ESHIA phase.</p> <p>The deliverable of this phase is:</p> <ul style="list-style-type: none"> • ESHIA report • Environmental, Social and Health Management and Monitoring Program; <p>ESHIA Disclosure Phase has the objective of presenting the ESHIA Report and eventual relevant documents to all stakeholders and interested parties, gathering and addressing comments and concerns.</p>
Company D	Corporate procedures require environmental impacts and risks to be identified, managed to acceptable levels and documented. Preparation of an EIA requires screening, scoping and impact assessment.

4) Please provide an overview of the current EIA process in place for offshore activities (if applicable).

EU	N/A
Israel	EIA requested by Ministry of Energy before starting of field operations. Guidelines for EIA document issued by Ministry of Energy in cooperation with Ministry of Environmental protection. EIA must be approved by both ministers.

Italy	<p>All administrative and technical information, data and documentation about EIA procedures (ongoing and concluded) are available on the website of the Ministry of Environment dedicated to the SEA and EIA procedures carried out at national level by the Ministry of Environment (http://www.va.minambiente.it/en-GB).</p> <p>Main information is also available in English language.</p> <p>Using the tool “search-projects” from the main top menu of the website and the advanced search tools, it is possible to access to all relevant information, data and documents related to ongoing EIA procedures for offshore/onshore activities.</p>
Albania	<p>The EIA processes on the required offshore activities are undertaken in accordance to the provisions foreseen by the mentioned Law (No.10.440) and the related Annexes 1 & 2</p>
Bosnia and Herzegovina	N/A
France	<p>The owner of the project of works, works or facilities must carry out an impact study presenting the specific elements of the project and the main environmental issues and impacts in the area that is likely to be affected. It must be proportionate to these. This study is subject to environmental assessment by an authority independent of the administrative authority issuing the project authorization.</p>
Norwegian Oil & Gas Association on behalf of operators on the Norwegian Continental Shelf	<p>Opening of areas for activity. Petroleum Act.</p> <p>Specific projects/fields, PDO according to Activity regulation (Petroleum Safety Authority)</p>
Company A	<p>As noticed above: An Environmental Impact Assessment (EIA) study is systematically undertaken during the initial stage of any offshore E&P project, including seismic survey, exploratory drilling, field development and decommissioning. Associated to this EIA, an evaluation of the environmental status, also called “Environmental Baseline Study (EBS) is performed.</p>
Company B	<p>Yes, Company’s internal standards specify the types of project or activity that require an EIA to be carried out. The internal thresholds are based on materiality or magnitude of the project and the potential sensitivity of receptors exposed to impacts. Company’s internal thresholds align with international standards for EIA such as the IFC Performance Standards.</p>
Company C	

	<p>Company's Technical Guidelines for the developing of an ESHIA are applicable to all onshore and offshore exploration and development projects, which have a potential to affect the biological and social environment, without set thresholds.</p> <p>Requirements and eventual thresholds for the submission of the ESHIA Report to the Authorities for obtaining authorization for the project depend on the host country's legislation.</p>
Company D	<p>All petroleum activities require environmental assessment, however typically development projects and operating facilities require EIA.</p> <p>Some jurisdiction may also require an abridged version of an EIA for seismic and/or drilling activities.</p> <p>The thresholds tend to be activity based (which generally correlate with significance and/or magnitude of impact/risk).</p>
5) What type of projects/activities do require an EIA, e.g. are there certain thresholds that trigger these?	
EU	N/A
Israel	EIA required to be approved before starting of field operations. EIA must be compatible with Field development plan. In EEZ EIA must be submitted to Ministry of Energy, who consults with Ministry of Environment. In Territorial waters EIA must be submitted to District Planning Committee according to Planning and Building and Law 1965
Italy	See answer n. 1
Albania	<p>Based on the current legislation (here above mentioned) there are two kind of EIA's:</p> <p>`In deep` EIA</p> <p>`Preliminary` EIA</p> <p>These two categories are established in fully accordance to the previsions established by respective: Annex 1 and Annex 2 of the Law. No 10.440 on Environmental Impact Assessment.</p> <p>The list of projects/ activities included at the annexes 1 & 2, have been established by taking into account the potential impact of those activities on environment, the extent/ expansion of the project/activity, production and processing capacity etc.</p>
Bosnia and Herzegovina	There are thresholds for the land, but for the sea is general.
France	

	<p>The criteria and thresholds triggering the environmental assessment procedure are set out in the appendix to article R.122-2 of the Environment Code.</p> <p>Two procedures are possible: either the project is part of a systematic EIA, or a case-by-case review by the environmental assessment authority.</p>
Norwegian Oil & Gas Association on behalf of operators on the Norwegian Continental Shelf	<p>Opening of areas for activity. Petroleum Act.</p> <p>Specific projects/fields, PDO according to Activity regulation (Petroleum Safety Authority).</p>
Company A	<p>An EIA is systematically undertaken at each stage of an offshore E&P Project: from seismic acquisition to decommissioning.</p>
Company B	<p>Company applies an internally developed screening tool to determine the level of EIA needed for a project or whether a project needs a full Environmental, Social and Health Impact Assessment (ESHIA). Company’s internal screening criteria align with international standards for EIA such as the IFC Performance Standards.</p>
Company C	<p>Screening/scoping phase is applied for any project and not to determine whether a full EIA is required. It has the objective to perform a high-level preliminary assessment of project to define data need, assessment methodology and key issues to be addressed in the ESHIA phase. At this purpose Company’s Technical Guidelines provide a Screening checklist, which is a list of the main issues to be considered and key questions to be answered while conducting an ESHIA Screening. It is also provided a list and description of ESH baseline data and indicators that should be collected to characterize the context of the project before its commencement.</p>
Company D	<p>Screening takes into consideration the type of activity proposed, location, duration and scale of high-level impacts and risks, key stakeholders regulatory requirements and alternatives. This then leads to scoping and impact assessment. This is required for all activities, however the scale and nature of it may vary significantly depending on type of activity and materiality of impact and risk.</p>
<p>6) Please provide information on how a screening opinion obtained, i.e. how is it determined whether a full EIA required for a project or activity.</p>	
EU	<p>N/A</p>
Israel	<p>In EEZ Field operations can be started only under permission of Ministry of Energy after EIA approval.</p>

	In Territorial waters field operations can begin after permission of Planning District committee after EIA approval by Ministers of Energy and Environmental protection
Italy	See answer n. 1. Screening procedures are not provided by national legislation which provides exclusively mandatory EIA.
Albania	<p>The institution in charge for the EIAs issuing, is the authority responsible for providing opinions/suggestions/comments to the operators who are interested to develop any kind of activity or project, prior the application procedures for an EIA.</p> <p>This process is made under private operator`s request and is based on a technical report /assessment, prepared by the private operator and assessed by the technical staff of the institution. (in this case by National Environmental Agency (NEA)).</p> <p>The screening opinion offered by NEA, is undertaken before the official application for EIA by the operator.</p>
Bosnia and Herzegovina	For the sea project or activity, always a full EIA is required.

<p>France</p>	<p>The content of the impact study is specified in Article R.122-5 of the Environment Code. The environmental authority assesses whether the EIA is complete and sufficiently large to describe and assess the project's issues and the potential environmental disadvantages that it can generate.</p> <p>The impact study is subject to an opinion from the environmental authority. The client is obliged to respond to any comments made in the notice.</p>
<p>Norwegian Oil & Gas Association on behalf of operators on the Norwegian Continental Shelf</p>	<p>Operators are required to apply for a permit for activity (discharges to sea and emissions to air) from the Environmental Agency according to the Pollution Control Act and Activity regulation.</p>
<p>Company A</p>	<p>Even if an EIA is not requested by the regulator, an EIA is performed. EIA is not only a regulatory document it has also operational objectives.</p> <p>For info, EIA is often performed jointly with the Social Impact Assessment</p>
<p>Company B</p>	<p>Yes, Company requires an environmental, social and community health aspects and impacts register to be developed for operations that do not require a full EIA. In addition, Company will always comply with local legislative permitting or regulatory agency requirements relating to EIA in the countries in which we operate.</p>
<p>Company C</p>	<p>According to Company's procedures, every project requires the development of an ESHIA Report even if the local legislation does not require a full EIA for that same project.</p> <p>The requirements of developing the ESHIA is verified by the project team during managerial control moments ("gates" and assurance reviews) as defined by internal project authorization procedures.</p>
<p>Company D</p>	<p>As above, all activities undertake screening, scoping and impact assessment, the scale and nature of the resulting EIA will vary depending on the type of activity and materiality of impact and risk.</p>
<p>7) Is there a separate or additional permitting and consent system in place for operations that do <u>not</u> require an EIA?</p>	
<p>EU</p>	<p>N/A</p>

Israel	N/A
Italy	Not applicable to Italian legislation (see answers n.1, 6)
Albania	<p>Yes, it is. It is called `consultation phase` performed between National Environmental Agency and the operator/s. After the consultation phase, NEA (the institution) release the final opinion/ assessment on the activity`s categorization, by using as reference the list of activities /projects included at the Annex 1 & Annex 2 of the Law. No. 10 440 on EIA.</p> <p>For those activities, that do not belong to any of two Annexes mentioned, NEA issues an `Official Confirmation` to the operator, where is stipulated the fact that the certain activity/ project is not subject of any of two annexes (1&2).</p> <p>In the cases when, is noted any potential environmental impact of the project, after the Operational (installing) phase, it will be decided that the operator must be subject of Environmental Permission procedures (According the previsions of DCM No. 419. dated on 25/06/2011 on Environmental Permission` amended by Law No. 60/2015 on Environmental Permission.</p>
Bosnia and Herzegovina	N/A
France	<p>Yes, especially for projects subject to a case-by-case review that may conclude that there is no need for an EIA.</p> <p>Projects are subject to an authorization to operate or opening works issued by the Competent Authority prior to its implementation, taking into account the opinion of the environmental assessment but also other criteria such as the safety of persons and goods.</p> <p>For oil and gas operations, this procedure is regulated by the Mining Code and its implementing decree n ° 2006-649 of June 2, 2006 relating to mining works, underground storage works and the police of mines and underground storage facilities.</p>

Appendix 3

List of Proposed IMAP Common Indicators and Questionnaire Feedback Received To Date

Common Indicator	EU	Israel	Italy
Common Indicator 1: Habitat distributional range, to also consider habitat extent as a relevant attribute (EO1);		Relevant to all activities	
Common Indicator 2: Condition of the habitat's typical species and communities (EO1);		Relevant to all activities	
Common Indicator 3: Species distributional range (related to marine mammals, seabirds, marine reptiles) (EO1);		Relevant only for continental shelf activities	YES (Guidelines for monitoring projects that are subject to EIA D.Lgs.152/2006 e s.m.i.; D.Lgs.163/2006 e s.m.i.)” http://www.va.minambiente.it/it-IT/ps/DatiEStrumenti/SpecificheTecnicheELineeGuida
Common Indicator 4: Population abundance of selected species (related to marine mammals, seabirds, marine reptiles) (EO1);		Relevant only for continental shelf activities	YES (Guidelines for monitoring projects that are subject to EIA D.Lgs.152/2006 e s.m.i.; D.Lgs.163/2006 e s.m.i.)” http://www.va.minambiente.it/it-IT/ps/DatiEStrumenti/SpecificheTecnicheELineeGuida
Common Indicator 5: Population demographic characteristics (e.g. body size or age class structure, sex ratio, fecundity rates, survival/mortality rates related to marine mammals, seabirds, marine reptiles) (EO1);		Relevant only for continental shelf activities	YES (Guidelines for monitoring projects that are subject to EIA D.Lgs.152/2006 e s.m.i.; D.Lgs.163/2006 e s.m.i.)” http://www.va.minambiente.it/it-IT/ps/DatiEStrumenti/SpecificheTecnicheELineeGuida

Common Indicator	EU	Israel	Italy
Common Indicator 6: Trends in abundance, temporal occurrence, and spatial distribution of non-indigenous species, particularly invasive, non-indigenous species, notably in risk areas (EO2, in relation to the main vectors and pathways of spreading of such species);		Relevant to all activities	
Common Indicator 7: Spawning stock Biomass (EO3);		No	
Common Indicator 9: Fishing Mortality (EO3);		No	
Common Indicator 12: Bycatch of vulnerable and non-target species (EO1 and EO3);		No	
Common Indicator 13: Concentration of key nutrients in water column (EO5);		Relevant to all activities	
Common Indicator 14: Chlorophyll-a concentration in water column (EO5);	Important, Cf. decision EU 2017/848 of 17 May 2017; Descriptor 5	Relevant to all activities	<p>YES in monitoring of Exploration and Exploitation (guidelines for monitoring produced water discharge ex art. 104, comma 7 del D.Lgs 03 aprile 2006, n.152) http://www.isprambiente.gov.it/files/pubblicazioni/linee-guida-ecosistemi-acq-01-09-e-allegati.pdf.</p> <p>YES (Guidelines for monitoring projects that are subject to EIA D.Lgs.152/2006 e s.m.i.; D.Lgs.163/2006 e s.m.i.)” http://www.va.minambiente.it/it-IT/ps/DatiEStrumenti/SpecificheTecnicheELLineeGuida</p>

Common Indicator	EU	Israel	Italy
Common Indicator 15: Location and extent of the habitats impacted directly by hydrographic alterations (EO7);	Important, Cf. decision EU 2017/848 of 17 May 2017; Descriptor 7	No	
Common Indicator 17: Concentration of key harmful contaminants measured in the relevant matrix (EO9, related to biota, sediment, seawater);	Important, Cf. decision EU 2017/848 of 17 May 2017; Descriptor 8	Relevant to all activities	<p>YES in monitoring of Exploration and Exploitation (guidelines for monitoring produced water discharge ex art. 104, comma 7 del D.Lgs 03 aprile 2006, n.152) http://www.isprambiente.gov.it/files/pubblicazioni/linee-guida-ecosistemi-acq-01-09-e-allegati.pdf.</p> <p>YES (Guidelines for monitoring projects that are subject to EIA D.Lgs.152/2006 e s.m.i.; D.Lgs.163/2006 e s.m.i.)” http://www.va.minambiente.it/it-IT/ps/DatiEStrumenti/SpecificheTecnicheELineeGuida</p>
Common Indicator 18: Level of pollution effects of key contaminants where a cause and effect relationship has been established (EO9);	Important, Cf. decision EU 2017/848 of 17 May 2017; Descriptor 8	Relevant to all activities	<p>YES (Guidelines for monitoring projects that are subject to EIA D.Lgs.152/2006 e s.m.i.; D.Lgs.163/2006 e s.m.i.)” http://www.va.minambiente.it/it-IT/ps/DatiEStrumenti/SpecificheTecnicheELineeGuida</p>
Common Indicator 19: Occurrence, origin (where possible), and extent of acute pollution events (e.g. slicks from oil, oil products and hazardous substances) and their impact on biota affected by this pollution (EO9);	Important, Cf. decision EU 2017/848 of 17 May 2017; Descriptor 8	Relevant	

Common Indicator	EU	Israel	Italy
Common Indicator 20: Actual levels of contaminants that have been detected and number of contaminants which have exceeded maximum regulatory levels in commonly consumed seafood (EO9);	Important, Cf. decision EU 2017/848 of 17 May 2017; Descriptor 9	Relevant	
Common Indicator 23: Trends in the amount of litter in the water column including microplastics and on the seafloor (EO10);		Relevant	
Candidate Indicator 26: Proportion of days and geographical distribution where loud, low, and mid-frequency impulsive sounds exceed levels that are likely to entail significant impact on marine animals (EO11);	Important, Cf. decision EU 2017/848 of 17 May 2017; Descriptor 11	Relevant	YES- (Guidelines for monitoring projects that are subject to EIA D.Lgs.152/2006 e s.m.i.; D.Lgs.163/2006 e s.m.i.)” http://www.va.minambiente.it/it-IT/ps/DatiEStrumenti/SpecificheTecnicheELineeGuida
Candidate Indicator 27: Levels of continuous low frequency sounds with the use of models as appropriate (EO11).	Important, Cf. decision EU 2017/848 of 17 May 2017; Descriptor 11	Relevant	