

GENERAL SPECIFICATION

Environment

GS EP ENV 120

Environmental Impact Assessment of E&P Activities

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1. Scope

An Environmental Impact Assessment (EIA) study is systematically undertaken during the initial stage of any offshore and onshore E&P Project (called "Project" for the purpose of this document), including seismic operation, drilling, development (incl. construction, installation, commissioning, start-up), operation and decommissioning.

The purpose of the present General Specification is to define the processes and requirements to be implemented for conducting an environmental impact assessment study (EIA). Environmental considerations can be integrated with social and health issues in Environmental and Social Impact Assessments (ESIAs) and/or Environmental, Social and Health Impact Assessments (ESHIAs) that highlight the interrelations between them.

This General Specification is the minimum standard required by the Company to assess impacts on the environment. It should be adapted to each Project in order to define a particular specification, or Scope of Work.

Additional requirements raised during early engagements with the authorities and other stakeholders can be considered.

This General Specification defines the content of the study and its organization, progress, content of the different phases and deliverables.

2. Reference documents

The reference documents listed below form an integral part of this General Specification.

External Documents

Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and supplements, is the latest revision published at the effective date of this document.

Reference	Title
ACCOBAMS	Resolution 4.17 Guidelines to address the impact of anthropogenic noise on cetaceans in the accobams area, 2010.
CSBI	A cross-sector guide for implementing the Mitigation Hierarchy, Prepared by The Biodiversity Consultancy on behalf of IPIECA, ICM and the Equator Principles Association: Cambridge UK, 2015. Good Practices for Biodiversity Inclusive Impact Assessment and Management Planning. Multilateral Financing Institutions, 2015. Good Practices for the Collection of Biodiversity Baseline Data. Multilateral Financing Institutions Biodiversity Working Group & Cross-Sector Biodiversity Initiative, 2015.

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Reference	Title
IOGP Guidelines	Principles for impact assessment – the environmental and social dimension, 1997.
International Finance Corporation (IFC)	Rapport No. 2,59/197 - Methods for Estimating Atmospheric emissions from E&P Operations, September 1994.
	Assessment and Management of Environmental and Social Risks and Impacts, 2012.
	PS1 : Biodiversity Conservation and Sustainable Management of Living Natural Resources, 2012.
	PS 6 : Biodiversity Conservation and Sustainable Natural Resources, 2012.
	GN 6: Biodiversity Conservation and Sustainable Natural Resources, 2012 (Updated 2019).
	Good Practice Handbook on Cumulative Impact Assessment and Management: Guidance for the Private Sector in Emerging Markets, 2013.
IPIECA-IOGP	Biodiversity and ecosystem services fundamentals. Guidance document for the oil and gas industry – IOGP Report 554, 2016.
	Ecosystem services guidance: Biodiversity and ecosystem services guide, 2011.
	Sensitivity mapping for oil spill response; Good practice guidelines for incident management and emergency response personnel, 2012.
ISO 14001	Environmental Management Systems – Requirements with guidance for use.
IFC Annual Report 2013	The Power of Partnerships
JNCC	JNCC guidelines for minimising the risk of injury to marine mammals from geophysical surveys, 2017.
UNEP/IOGP Guidelines	Environmental Management in Oil and Gas Exploration and Production, 1997.
World Bank	Operational Policies: - Operational Policy Environmental Assessment 4.01, 2013. - Environmental Action Plans 4.02, 2015. - Natural Habitat 4.04, 2013. - Performance Standards for Private Sector Activities, 2012.
1992 OSPAR Convention	Convention on the protection of the marine environment of the North-East Atlantic.
2012 OSPAR Agreement	OSPAR Guidelines for completing the harmonised offshore chemical notification format. May 2012 updated 2019.

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Reference	Title
GS EP ENV 001	Environmental Requirements for Projects Design and E&P Activities
GS EP ENV 111	Environmental Baseline and monitoring studies: Onshore sites
GS EP ENV 112	Environmental Baseline and monitoring studies: Offshore and nearshore sites
GS EP ENV 501	GIS Deliverables for HSE
GS EP SDV 101	Social Baseline Study
GS EP SDV 102	Social Impact Assessment
GS EP SAF 041	Technological risk assessment
GM EP ENV 006	ENVironmental aspects IDentification (ENVID) study

3. Terms and definitions

Area of influence: It is the areas likely to be directly and/or indirectly affected by the Project:

- The area affected by the activities and facilities that are directly owned and managed by the Project. Examples include the physical Project footprint, areas adjacent to the site that are affected by emissions and effluents, power transmission corridors, pipelines, borrow and disposal areas, etc.
- The area affected by any unplanned event from Project activities.
- The areas affected by associated activities and facilities that, although not part of the Project that is being assessed by the ESIA, would not have occurred in the absence of the Project. The physical footprint of non-Project facilities in the surrounding area that are caused or stimulated by the Project plus the area affected by their activities. These so-called indirect impacts are generally the result of changing economic or social patterns catalyzed by the Project's presence, such as human settlement near a Project site resulting in the destruction of natural habitat or increased pressure on biological resources (e.g., increased access to sensitive areas as a result of new roads, rights-of way, etc.). In some cases, a Project's indirect impacts can greatly exceed its direct impacts.

BATNEEC: "Best Available Techniques" (BAT) Not Entailing Excessive Economical Costs shall mean the most effective and advanced stage in the development of activities and their methods of operation which indicate the practical suitability of particular techniques for providing in principle the basis for emission limit values designed to prevent and, where that is not practicable, generally to reduce emissions and the impact on the environment as a whole:

- **'Techniques'** shall include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned,
- **'Available'** techniques shall mean those developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or

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produced inside the Member State in question, as long as they are reasonably accessible to the operator,

- **'Best'** shall mean most effective in achieving a high general level of protection of the environment as a whole." (European Union Council Directive 96/61/EC, 1996).
- "not entailing exceeding cost" (NEEC) addresses the balance between environmental benefit and financial expense." (Ireland EPA, 1996)

Critical habitats: areas with high biodiversity value, including (i) habitat of significant importance to Critically Endangered and/or Endangered species; (ii) habitat of significant importance to endemic and/or restricted-range species; (iii) habitat supporting globally significant concentrations of migratory species and/or congregatory species; (iv) highly threatened and/or unique ecosystems; and/or (v) areas associated with key evolutionary processes.

Cumulative impacts: "Cumulative impacts are those that result from the successive, incremental, and/or combined effects of Project activities, when added to other existing, planned, and/or reasonably anticipated future ones. For practical reasons, the identification and management of cumulative impacts are limited to those effects generally recognized as important on the basis of scientific concerns and/or concerns of affected communities" (IFC, 2013).

Ecosystem services: The ecosystem services are defined by the United Nations Environment Program (UNEP) such as: "the benefits people obtain from ecosystems. These include provisioning services such as food and water; regulating services such as flood and disease control; cultural services such as spiritual, recreational, and cultural benefits; and supporting services, such as nutrient cycling, that maintain the conditions for life on Earth."

Environment: surroundings in which an entity operates, including air, water, land, natural resources, flora, fauna, humans and their interrelationship.

Environmental aspect: element of an entity activities that can interact with the environment, including those associated with normal operating conditions, abnormal (downgraded) conditions including start-up and shut-down, as well as reasonably foreseeable emergency situations (ISO 14001).

ENVID: A review conducted at an early stage of a Project that enables to identify environmental aspects that come about due to an interaction between the facility and its surroundings in order to plan for, avoid, or mitigate their potential impacts. Hazard and environmental aspects identification is an important step in the design of the facility. This ensures that the design complies with the regulations, and that the environmental aspects are controlled and kept as low as reasonably practicable

Environmental impact: any change to the environment, whether adverse or beneficial, wholly or partially resulting from an entity's environmental aspects. The relationship between environmental aspects and impacts is a causal one.

Mitigation hierarchy: Mitigation hierarchy is defined as: 'A framework for managing risks and potential impacts related to biodiversity and ecosystem services. It refers to the sequence of actions to anticipate and avoid impacts on biodiversity and ecosystem services; and where avoidance is not possible, minimize ; and, when impacts occur, rehabilitate or restore ; and where significant residual impacts remain, offset' (adapted from CSBI, 2015). Appropriate actions include:

- Avoiding impacts on biodiversity through the identification and protection of set-asides;

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- Implementing measures to minimize habitat fragmentation, such as biological corridors;
- Restoring habitats during operations and/or after operations; and
- Implementing biodiversity offsets.”

The mitigation hierarchy can be applied to all environmental aspects.

Modified habitats: areas that may contain a large proportion of plant and/or animal species of non-native origin, and/or where human activity has substantially modified an area’s primary ecological functions and species composition like areas managed for agriculture, forest plantations, reclaimed coastal zones and reclaimed wetlands.

Natural habitats: areas composed of viable assemblages of plant and/or animal species of largely native origin, and/or where human activity has not essentially modified an area’s primary ecological functions and species composition.

Project: a planned exploration activity (seismic, drilling) or the design / construction / decommissioning of a new installation/plant incl. any major modifications of an existing installation/plant.

Receptor : Ecological receptors includes any living organisms other than humans, the habitat which supports such organisms, or natural resources which could be adversely affected by environmental impacts caused by the Project. Typical receptor categories may be: ecosystem (forest,...), wildlife, , air, water, soil, sediment etc.

Risk: a combination of the probability (or frequency) of occurrence of a defined hazard and its estimated gravity. Parameter characterizing an unwanted event by its likelihood of occurrence and the extent of consequences arising from its occurrence.

The list of acronyms used in the present document is in Appendix 1.

4. Objective of an Environmental Impact Assessment

The purpose of the Environmental Impact Assessment (EIA) is to ensure that the environment is given full and proper consideration in the decision making process with respect to potential activities having possible negative and positive consequences on the environment (IOGP, 1997).

The EIA provides a description of the environmental conditions within the area of influence of the Project to a degree that is proportional to the anticipated impacts and associated significance. The EIA is used to predict, identify, assess, avoid, minimize, restore and offset all the possible impacts of the planned activities and accidental events, so that environmental considerations can inform and be integrated into Project decisions. It helps to select the best practicable location, layout, design, phasing, technologies, and products, in order to manage the impacts from activities and anticipate environmental restoration and off-setting, when needed.

The assessment is an important decision-support tool that is used to integrate environmental values, including biodiversity, into the design, planning, and implementation of the Project. The EIA study shall integrate all Project phases. It provides a detailed framework for an Environmental Management Plan (EMP) and a Commitments’ Register both to be implemented by the Company and its Contractors during design and when works start. The level of detail shall be commensurate with the nature and scale of the Project and the potential risks and impacts.

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The content of the EIA study commits the Company and Contractors to implement all the measures identified during the design, planning, and implementation of the Project, in order to reduce environmental impacts and manage associated risks.

An EIA study¹ is usually required by Regulations and part of the needed set of documentation for permitting purposes for the Project. It provides a comprehensive list of the national and international regulations and associated requirements as well as Company standards applicable to the Project.

5. Responsibilities

5.1 Company Environment Project Leader

The Company Environment Project Leader is responsible for coordination between all parties involved (when applicable):

- Company headquarter entities,
- The Company entity responsible for the Project,
- The affiliate (e.g.: HSE, Environment, Societal, Security, Operations, Drilling, Logistics departments, and site RSES),
- The Contractor selected to carry out the study(ies),
- Authorities and any International/National Organisations involved,
- Local community(ies) and associations,
- Other stakeholders (other industries/land users, international conservation NGOs, financial institutions, non-operating partners, etc.).

The coordination shall clearly define the roles and responsibilities of involved parties, including who is to be consulted and informed. A RACI matrix shall be set up as early as possible.

The Company Environment Project Leader is also responsible for:

- Defining a tentative schedule including but not limited to:
 - Meetings (kick-off meeting, progress meetings, any other ad hoc meeting, a close out meeting) and,
 - Dates for submission of deliverables to Company,
 - Dates for submission of deliverables to authorities.
- Reviewing the overall schedule and key milestones during progress meetings,
- Validating the EIA methodology,
- Ensuring that all in-house available information are provided,
- Managing the data requests from the Contractor,

¹ Depending on the country, the EIA report is also called Environmental Impact Statement (EIS) or Environmental Impact Study (EIS)

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- Setting up appropriate IT tools to manage the study with the Contractor (sharepoint, Teams, etc.),
- Reviewing and validating with all concerned Company entities all the internal deliverables to be given to Contractor, e.g. modeling reports,
- Reviewing and validating with all concerned Company entities all the deliverables produced by the Contractor through a formal QA/QC process, before submission to authorities,
- Ensuring that Contractor integrate all comments from Company in the report to be submitted to authorities,
- Ensuring the Contractor is complying with the Contract for the EIA,
- Participating to stakeholders' engagement with Social Project Leader if required,
- Participating in meetings with authorities or public when necessary,
- Ensuring that Contractor integrate all comments from authorities in the final report,
- Ensuring that Corporate PSR/HSE/EP/ENV is informed about the EIA study at pre-bid stage and the need for a Corporate review of the final EIA has been assessed.
- Ensuring that the final EIA report is submitted and approved by the relevant authorities.
- Ensuring that the final approved documents (EBS, EIA, letter of EIA approval etc.) are registered within Total E&P document database.

5.2 Contractor

The Contractor is responsible for:

- Being registered in country by the authority(ies) when requested,
- Appointing an EIA manager with an associated team,
- Complying with Contract requirements,
- Adapting the study themes to the context, scope, size and location of the Project,
- Establishing a detailed schedule of activities and deliverables' preparation and submission, including but not limited to a kick-off meeting, progress meetings, debriefing after meeting with stakeholders, any other ad hoc meeting, a close out meeting, modeling, review and approval, etc.,
- Reporting and following progress of key milestones to Company during the progress meeting,
- Ensuring the detailed schedule of activities is approved by the Company Environment Project Leader,
- Organising and leading meetings as appropriate,
- Preparing Minutes of Meeting (kick-off meeting; progress meetings, debriefing meeting, etc.),
- Preparing, submitting, and updating a comprehensive data request for Company,