



TotalEnergies EP South Africa B.V.

**ENVIRONMENTAL AND SOCIAL IMPACT
ASSESSMENT (ESIA) FOR THE OFFSHORE
PRODUCTION RIGHT AND ENVIRONMENTAL
AUTHORISATION APPLICATIONS FOR BLOCK
11B/12B - REF NO: 12/4/13 PR**

Draft Environmental and Social Impact
Assessment Report



CHAPTER 3



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ASSESSMENT (ESIA) FOR THE OFFSHORE
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Draft Environmental and Social Impact Assessment Report

PUBLIC

PROJECT NO. 41105306

OUR REF. NO. REPORT NO: 41105306-358669-10

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WSP





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3 ESIA APPROACH AND PROCESS

3.1 DETAILS OF THE ESIA TEAM

WSP has been appointed as the EAP to undertake the S&EIA Process for the Project. WSP is a leading environmental consultancy with a broad range of expertise and over 23 years' experience in the regional market. As part of a global business, WSP provides the marketplace with a dynamic blend of local knowledge and global expertise.

The WSP Project Team's combined experience in the environmental field ensures that the S&EIA Process for the Project can be undertaken successfully. The details of the Project Team are provided in Table 3-1. The curricula vitae of the Project Team are available in Appendix A.

Table 3-1 - Details of the EAP

Team Member	Qualifications	Professional Registrations	Years of experience
Hélène Marchand	M.A Sociology – Université Laval	None	30
Helen Crosby	M.Sc. Oceanography, University of Port Elizabeth	None	28
Olivia Allen	M.Sc. Water Resource Management - University of Pretoria	Registered EAP (2019/1725)	18
Rizqah Baker	BA (Hons) Environmental and Geographical Studies	Registered EAP (2021/3463)	6

3.2 ESIA PROCESS

The ESIA process is being undertaken in accordance with the EIA Regulations 2014, as amended, promulgated under NEMA. The DMRE is the decision-making authority for the ESIA. The DFFE remains the appeal authority for EAs.

The ESIA process consists of two phases, namely the Scoping and IA phases. A flow-diagram of the ESIA process is presented in Figure 3-1. The flow-diagram shows the steps in the ESIA process from preparation of the PR and EA application to final submission of the ESIA Report and EMPr for a decision.

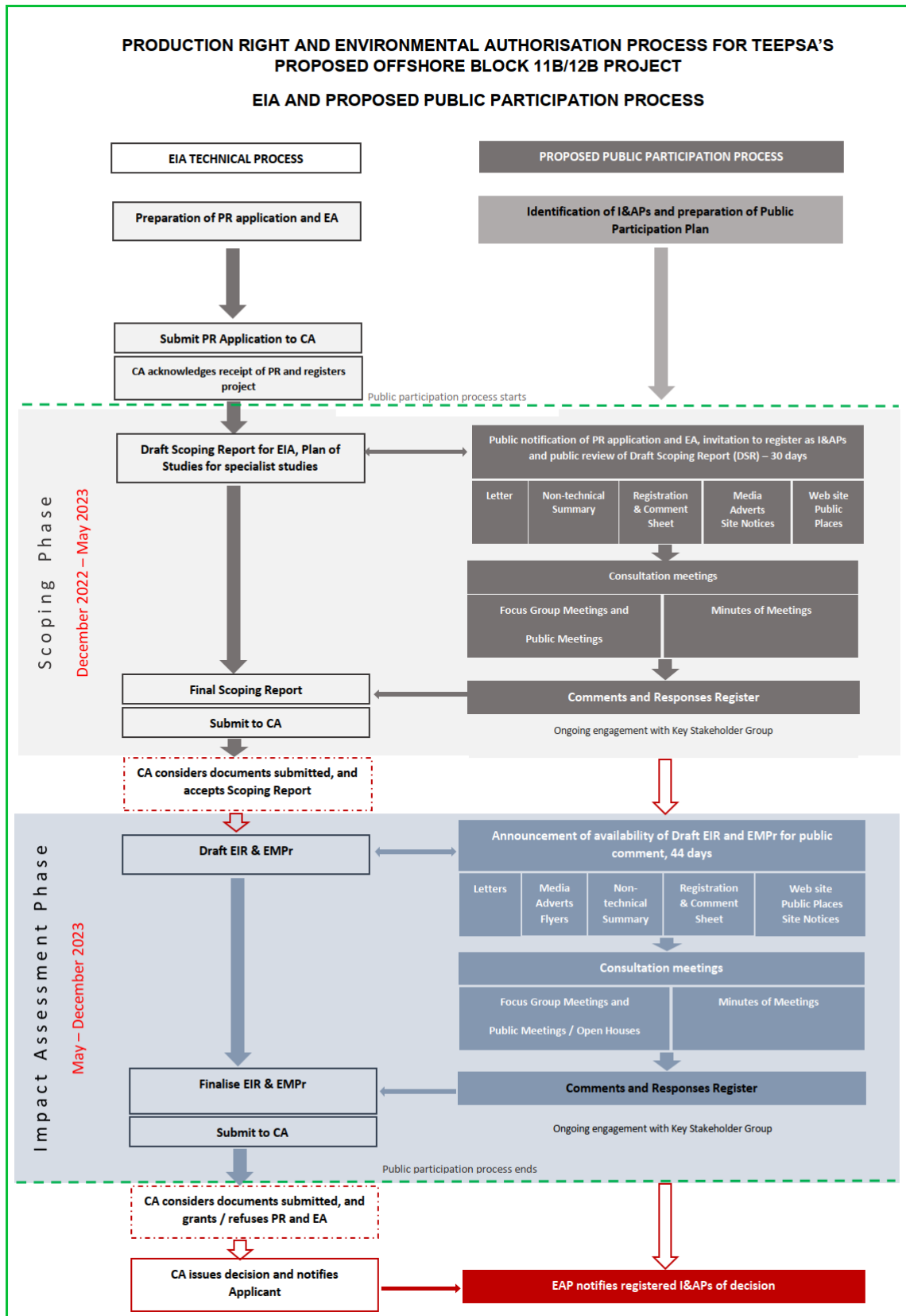


Figure 3-1 - ESIA Process

3.2.1 SCOPING PHASE

The main purpose of the Scoping Phase is to identify the potential environmental and social impacts associated with the Project, to provide a description of the current baseline environmental conditions within the Project zone of influence, as well as alternatives under investigation, and to develop the Plan of Study for the ESIA Phase, including the specialist studies.

The Scoping Phase undertaken for the Project included the following key stages:

- Pre-application meeting with the CA.
- Compilation of the National Screening Report using the DFFE's National Screening Tool.
- Compilation of a Public Participation Plan detailing the proposed public consultation process that will be followed during the Scoping Phase.
- Compilation of the EA application form and submission to the CA. The Screening Report and Public Participation Plan were submitted along with the application form.
- Gap analysis of existing information against the project compliance criteria.
- Review of applicable compliance criteria inclusive of South African legal and administrative requirements.
- Carrying out a desktop assessment to review the existing baseline conditions of the environment that could be affected by the Project.
- Inputs to the identification of sea uses and screening of the alternatives from an environmental and socio-economic impact perspective.
- Identification of key impacts and issues and outlining the Plan of Study.
- Compilation of the Draft Scoping Report (DSR).
- Public consultation as required in terms of the EIA Regulations, 2014, including circulation of the DSR to I&APs.
- Updating and finalisation of the DSR, which incorporates the comments received from I&AP's during the PPP.
- Submission of the FSR to the CA, for consideration in terms of Section 22 of the EIA Regulations, 2014.

3.2.2 EIA PHASE

The key objectives of the EIA Phase are to assess the potential environmental and social impacts identified for the Project and alternatives; to identify measures to avoid, minimise or otherwise manage identified impacts; and to develop a monitoring programme to assess performance of implemented measures.

The EIA Phase undertaken for the Project included the following key stages:

- Conducting specialist studies. These include:
 - Oil Spill Modelling, including Peer Review.
 - Drill Discharge Modelling, including Peer Review.
 - Underwater Noise Modelling.
 - Climate Change Impact Assessment.
 - Air Quality Impact Assessment.
 - Marine Ecology and Fisheries Impact Assessment.
 - Cultural Heritage Impact Assessment.

- Social Impact Assessment.
- Maritime Heritage Impact Assessment.
- Economic Impact Assessment.
- Closure Plan and Costing.
- Existing specialist studies previously conducted for exploration drilling in the eastern portion of the Block, specifically Oil Spill Modelling and Drill Discharge Modelling, including Peer Review, have also been used to inform the impact assessment.
- Preparation of an ESIA Report and EMPr, based on the outcomes of the specialist studies and consolidating the findings of the impact assessment. The overarching principles that guide the ESIA include:
 - Sustainability – development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs;
 - Mitigation hierarchy – The mitigation hierarchy describes a stepwise approach that illustrates the preferred approach to mitigating adverse impacts as follows (the governing principle is to achieve no net loss and preferably a net positive impact on people and the environment as a result of the project):
 - The preferred mitigation measure is avoidance;
 - Then minimisation;
 - Then rehabilitation or restoration; and
 - Finally, offsetting residual, unavoidable impacts.
 - Duty of care towards the environment and affected people.
- Conducting the assessment of impacts of the proposed activities within the context provided by these principles and objectives.
- Circulation of the ESIA Report and EMPr into the public domain for review and comment (refer to Section 4.4. All issues and comments will be integrated into the process and considered during the S&EIA Process.
- Developing a Comments and Responses Report (CRR) that will incorporate all issues and comments from the PPP. Responses to the issues and comments will form part of this Report.
- Updating the ESIA Report and ESMP and submission to the CA for a decision on whether the project may proceed, and if so, under what conditions.
- Notification of all I&APs of the decision by the CA, and how and by when the decision may be appealed.

3.3 ESIA ASSUMPTIONS AND LIMITATIONS

Given the nature of the activities for the Project, certain aspects of the Project are unknown at the time of the preparation of the ESIA and will only be resolved at a detailed design stage or once the project commences. This situation imposes limitations on the information available for the assessment of environmental and social impacts. The approach to addressing the limitations is to create working assumptions that are reasonable and each of the specialists has identified specific limitation and assumptions used in the preparation of the technical studies.

The following limitations and assumptions have been identified for the Project as a whole and used in the preparation of the ESIA:

- The development of an offshore gas field requires the involvement of a number of parties and the Block 11B/12B offshore infrastructure will be developed by TEEPSA. PetroSA will be responsible for operational activities over the lifetime of the Block and the gas and condensate will be purchased by a third party. TEEPSA will be responsible for decommissioning and closure of the offshore infrastructure at the end of production.
- The F-A Platform is owned and operated by PetroSA and is required to process the gas and condensate prior to it being brought onshore. It is assumed that PetroSA will obtain all necessary licenses and permits and will conduct operational activities and planned maintenance in compliance with the license and permit conditions.
- The outcome of ongoing commercial negotiations (including agreements for the sale of the gas) will determine the final use of the gas. Any construction, modification or upgrades to any onshore facility, if required by the off-taker of gas or condensates, will be subjected to a separate EA application.
- The timeframe for the exploration activities is currently not known and could occur at any time within the 25-year life of the Project.
- The exact location of the production and exploration wells is not known. The production wells will be located in the south-western portion of the Block within the Project Development Area, while the exploration wells will be located within the east north-eastern portion of the Block, in the Exploratory Priority Area. For the purposes of the marine acoustics modelling, drill cuttings discharge modelling and oil spill modelling, locations have been selected based on a number of factors, such as proximity to sensitive receptors, so that the assessment is based on a worst-case scenario.
- The exact alignment of the proposed production pipeline is not known at this stage. A 10 km wide corridor along the length of the proposed production pipeline alignment is considered for assessment purposes. The final pipeline alignment will be confirmed pending the outcome of further bathymetry, geotechnical and benthic surveys within the corridor.
- The location of offshore survey and data collection sites are not yet known but will likely be conducted along the production pipeline corridor and the drilling sites in the Project Development Area and Exploratory Priority Area.
- The ESIA considers the assessment of exploration activities in the east north-eastern section of the Block but does not aim to identify or assess the impacts or benefits of possible future production activities or outcomes in this section of the Block.
- The assessment of cumulative impacts is based on information that is available at the time the ESIA Report was compiled, for offshore and onshore activities that have been authorised or an application for environmental authorisation has been submitted (Section 11).
- The battery limit between new and existing infrastructure is at the top of the riser pipe as it connects to the F-A Platform.



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