

## Chapter 17

Environmental and Social Management System  
and Environmental and Social Management  
Plan

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## 17.1

**INTRODUCTION**

This chapter presents the framework for implementation of the Project Environmental and Social Management System (ESMS). The ESMS provides the structure for the management of environmental and social impacts associated with Project delivery. This includes environmental and social monitoring, documenting compliance (eg record-keeping) as required to measure the effectiveness of the mitigation measures, reporting on environmental and social performance, and the process for defining and implementing procedures for corrective action when necessary.

The ESMS framework enables implementation of the Environmental and Social Management Plan (ESMP), which details the actions that will be taken by the Project to mitigate and manage environmental and social impacts based on the activities described in the *Chapter 4: Project description, Chapters 6-9: baseline and Chapters 10-13: impact assessment chapters* of this EIA. Implementation of the ESMP provides tools for auditing the Project's mitigation and monitoring activities, and communicating monitoring outcomes to stakeholders <sup>(1)</sup>.

The ESMS is supported by the following annexes:

- *Annex C: Specialist Methodologies*  
*Annex C* provides a description of the methodologies developed and used by the various environmental and socio-economic specialists contributing to this EIA to collect, interpret and present baseline findings for their respective specialist studies.
- *Annex D: ESMP Tables*  
*Annex D* tabulates the Project impacts, associated management and/or mitigation measures as described in this EIA, and summarises key monitoring requirements and responsibilities for implementation.
- *Annex E: Waste Management Plan*  
*Annex E* is the Project Waste Management Plan (WMP), developed to facilitate evaluation and assessment of the Project impacts associated with the generation of waste. The WMP also outlines how waste generated as a result of the Project will be managed in accordance with Mozambican laws and regulations, recognised international good practice and the Project's general environmental and waste management policies.

(1) A Stakeholder Engagement Plan is being developed by the Project to describe its engagement strategies with identified project stakeholders.

- *Annex F: Decommissioning and Rehabilitation Plan*  
The Project's Decommissioning and Rehabilitation Plan (DRP) provides a framework, including a set of guidelines and actions, for facilitating decommissioning and rehabilitation activities. The DRP will need to be updated and submitted to MICOA for approval two years before Project closure.
- *Annex H: Emergency Response Plan*  
*Annex H* provides a representative Emergency Response Plan (ERP) which defines an organizational structure and provides a framework for responding to an emergency situation.
- *Annex I: Initial Resettlement Plan*  
The Project's Initial Resettlement Plan (IRP) contains the approach, principles and procedures which will be followed in resettlement planning. The IRP provides a framework for the future development of a Resettlement Action Plan (RAP).

The remainder of this chapter is structured as follows:

- *Section 17.2: Environmental and Social Management System Overview;*  
and
- *Section 17.3: Framework for Implementation of the Environmental and Social Management Plan:*
  - Introduction;
  - Organisation, Roles and Responsibilities;
  - Training, Education and Competency;
  - Assessment and Improvement;
  - Incident Management;
  - Grievance Management;
  - Reporting, and
  - Managing Changes.

## 17.2

### *ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEM OVERVIEW*

IFC Performance Standard 1 requires that an ESMS be developed to support an organisation's overall management systems to address environmental and social impact management effectively. The overarching management system is the Project's Management System that:

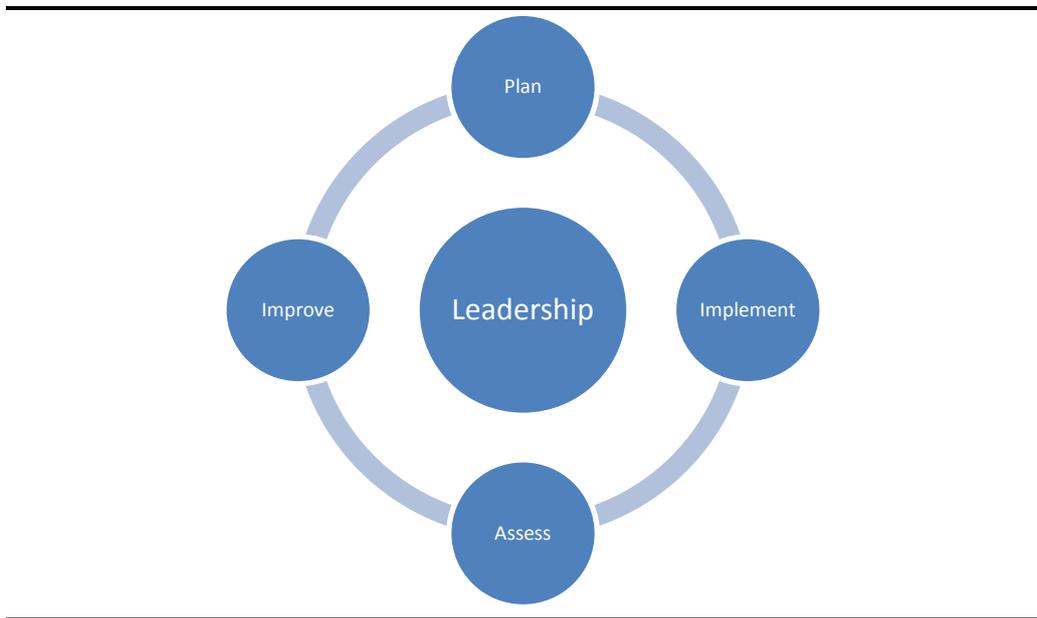
- enables the Project to manage activities in a healthy, safe and environmentally and socially responsible manner;
- establishes a common set of objectives and expectations;
- provides a structure to organise processes, programmes and procedures that enable the Project to carry out these objectives and expectations;

- is designed to identify, evaluate and control Project risks in a way that prevents or mitigates incidents that could impact people, the environment or assets; and
- applies to the entire asset life cycle: starting with design or acquisition, continuing through construction, installation, start-up and operations, and on through abandonment or divestiture.

The ESMS is developed in the context of the Project's Project Management System. The key steps or processes of the ESMS are illustrated in *Figure 17.1*, and each of the steps are further detailed below.

**Figure 17.1**

***Environmental and Social Management System Implementation Process***



**17.2.1**

***Plan***

The planning processes of the ESMS includes the following activities and considerations:

- defining the Project's policies, objectives and requirements for environmental and social performance;
- identifying environmental and social impacts and risks of the operations;
- developing mitigations and operational controls to address impacts and risks; and
- developing the management plans to achieve these objectives (that collectively produce the ESMP).

### 17.2.2 *Implement*

Implementation of the ESMS through the ESMP identified above will involve:

- implementing various environmental and social management plan(s); and
- implementing mitigation and management controls.

### 17.2.3 *Assess*

The assessment of the ESMS includes:

- assessing and evaluating performance against policies and objectives; and
- checking that mitigations and management controls are effective.

### 17.2.4 *Improve*

Improving ESMS performance involves:

- making corrections to plans, mitigations or controls in response to performance monitoring.

## 17.3 **FRAMEWORK FOR IMPLEMENTATION OF THE ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN**

### 17.3.1 *Introduction*

For the ESMP to be effectively implemented, the following areas need to be addressed by the ESMS:

- organisation, roles and responsibilities;
- training, education and competency;
- assessment and improvement;
- grievance management;
- incident management;
- reporting; and
- managing changes.

Each of these implementation elements is described in detail below.

### 17.3.2 *Organisation, Roles and Responsibilities*

The Project is ultimately accountable for the management and supervision of all Project activities. This responsibility includes the management of all contractors to ensure they contribute to helping the Project achieve its environmental and social performance objectives. Clear roles will be defined between the Project and contractors to determine leadership and responsibility for contributing to meeting environmental and social

performance expectations, and will entail at least the broad roles and responsibilities outlined in *Table 17.1* below.

**Table 17.1** *Key Project Roles and Responsibilities*

<b>Role</b>	<b>Responsibility</b>
Management	<ul style="list-style-type: none"> <li>• Manage implementation of the ESMS: plan, implement, assess and improve.</li> <li>• Oversee and monitor implementation of the ESMP for the Project.</li> <li>• Provide strategic environmental and social direction to the Project.</li> </ul>
Supervision	<ul style="list-style-type: none"> <li>• Work with contractors to achieve environmental and social performance by undertaking the following:               <ul style="list-style-type: none"> <li>○ conduct readiness reviews with contractors to ensure their ESMS implementation meets Project requirements;</li> <li>○ work with contractors to improve their ESMS where gaps are identified;</li> <li>○ conduct training and awareness programmes with personnel involved in ESMP implementation;</li> <li>○ ensure regular monitoring and evaluation of the Project’s performance against the ESMP;</li> <li>○ maintain records of all non-conformances and work with the relevant parties to resolve within reasonable time frames;</li> <li>○ assess the efficacy of the mitigation measures and manage continuous improvement around these measures;</li> <li>○ collate all required Project environmental and social reports and ensure they meet Project reporting requirements;</li> <li>○ provide day-to-day advice and counselling on all Project environmental and social requirements;</li> <li>○ work with contractors to close out grievances lodged by communities within the defined timelines;</li> <li>○ maintain accurate records of open and closed grievances, and work with contractors towards reducing the number of grievances lodged by implementing appropriate mitigation measures; and</li> <li>○ assist with the development of relevant and timely communications to Project-impacted communities by providing information to the Stakeholder Engagement team on upcoming Project activities.</li> </ul> </li> </ul>
Delivery/Implementation	<ul style="list-style-type: none"> <li>• Monitor and report on any Project activities that could negatively impact on communities.</li> <li>• Facilitate ongoing, reciprocal information sharing and communication between the Project and impacted communities; including helping to resolve any Project-related issues raised.</li> <li>• Support the Project’s grievance procedure by providing ongoing grievance procedure guidance and training to Project personnel, contractors and impacted communities and other relevant stakeholder groups (eg tourism industry stakeholders).</li> <li>• Conduct regular inspections and note non-conformances with the Project’s environmental and social requirements.</li> </ul>

The Project assumes overarching responsibility for implementation of the ESMP and, as such, it is important that all contractors and personnel responsible for the implementation of the tasks and requirements contained in the ESMP are competent on the basis of education, training and experience. The Project will undertake internal training and education activities to ensure that Project expectations regarding environmental and social performance are achieved. In addition, the Project will provide guidance to contractors regarding expectations for environmental and social impact management training, education and competencies. Environmental and social competencies will be appropriate to the respective parties' scope of activity and level of responsibility. Project will undertake an initial evaluation of training needs associated with this ESMP and, on this basis, develop and maintain an ESMP training matrix.

The Project's environmental and social training programmes will include several levels of competency, depending on each individual's level of involvement and responsibility:

- **ESMP Induction Training and Awareness:** this training will be for visitors or individuals who do not have direct roles or responsibilities for implementing the ESMP, and will cover basic Project environmental and social commitments.
- **ESMP Management Training and Awareness:** this training focuses attention on management, covering key aspects of the ESMP and providing an overview of the Project's environmental and social impact management expectations and the supporting processes and procedures prescribed in the ESMS to meet performance expectations.
- **ESMP Job-specific Training and Awareness:** job-specific training will be provided to all personnel who have direct roles and responsibilities for implementing or managing components of the ESMP. This training will also include all people whose specific work activities may have an environmental or social impact.

Onsite, these provisions and responsibilities will apply to all contractors and subcontractors. Those responsible for performing site inspections will receive training by drawing on external resources as necessary. Upon completion of training and once deemed competent by management, staff will be ready to train other people. The Project will require each contractor to institute training programmes for their personnel. All contractors and their subcontractors will be responsible for implementing relevant and adequate training programmes to maintain the required competency levels. Contractor training programmes will be subject to approval by Project Management and will be assessed to confirm that:

- training programmes are adequate;

- all relevant personnel have been trained; and
- competency is achieved.

Contractors will be required to report on their training activities, and the Project will maintain records of all training delivered.

#### 17.3.4

#### *Assessment and Improvement*

This section outlines the assessment and improvement processes associated with this ESMP: inspection, monitoring, audit, corrective action and improvement. These activities form an integral part of implementing the ESMP, and are necessary to:

- verify and document the management and implementation of the mitigation measures identified in the ESMP;
- monitor and document the effectiveness of the mitigation measures and assess the actual impacts;
- demonstrate compliance with applicable legal and other requirements;
- evaluate the effectiveness of the ESMS; and
- highlight areas in need of improvement to drive continuous improvement for all ESMP activities.

#### *Inspection*

Contractors will be required to implement field-based inspection programmes that demonstrate their implementation of – and, in some instances, the effectiveness of – the mitigation measures. The Project will, in turn, inspect the contractors’ documents to verify that they have implemented the required programmes.

#### *Monitoring*

Contractors will be required to implement field-based environmental monitoring (sampling and analysis) and social monitoring to monitor the effectiveness of the mitigation measures, assess impacts and demonstrate compliance with legal and other requirements. The Project will conduct similar monitoring events and also verify contractors’ monitoring activities.

#### *Auditing*

Audits will be carried out internally by the Project to ensure compliance with ESMP requirements, regulatory requirements and compliance with management systems, standards, policies and procedures. Periodic third party audits may also be required by the Project or lender groups, as agreed to by the parties. Audits will be performed by qualified staff, and results will be

described in a report that will determine the severity of non-compliances, as well as the recommended remedial action.

#### *Corrective Action and Improvement*

As part of the ESMS, the Project will implement a formal environmental and social tracking system that will include the details of all environmental and social non-conformances, identify the corrective actions required, assign actions/timings to responsible parties and indicate the status of the actions required. This will ensure a coordinated approach between the Project and its contractors, and drive changes for continuous improvement.

#### **17.3.5** *Grievance Management*

The Project will develop and implement a Grievance Procedure that is described in the Project's Stakeholder Engagement Plan (SEP). The Grievance Procedure describes how community members can raise grievances regarding the Project's activities. The Grievance Procedure addresses verbal or written grievances, which must include sufficient information about the complaint or claim so that a proper and informed evaluation of the grievance can be made. When a grievance is filed, it will be logged and evaluated using the process outlined in the SEP. All grievances will be tracked for monitoring and reporting purposes and to ensure timely and proper resolution.

#### **17.3.6** *Incident Management*

An incident is described as a specific event, sequence of events, or extended condition that has an unwanted or unintended impact on safety, security, health, livelihood, property, environment or regulatory compliance.

The Project will develop an incident management process that will describe the Project's requirements for managing safety, health, environment, social and security-related incidents, including near-misses. The underpinning principles will be to:

- avoid and reduce harm to communities, personnel, environment and assets;
- confirm proper remedial action and perform appropriate follow-up surveillance to ensure injuries, damage or illnesses do not escalate;
- communicate incident details to internal and external stakeholders as appropriate; and
- investigate all incidents to identify root causes and implement corrective actions to prevent incident recurrence and drive continuous improvement.

The incident management system will involve the following, which may occur concurrently during implementation:

- securing the area;
- initiating emergency response procedures if required;
- performing case management for injuries or illness;
- incident classification, notification and investigation;
- implementing corrective actions;
- relevant reporting; and
- lessons learned.

All incidents will be tracked in a Project tracking system.

### 17.3.7

#### *Reporting*

This section outlines the reporting and notification associated with implementation of the ESMP. The Project and contractors will work closely together to identify and agree all such Project notification and reporting requirements. It is envisaged that reporting will cover at least the following areas:

##### *Contractor Monthly Reporting*

Contractors will work closely with the Project prior to the commencement of work to define the structure, content and format for their environmental and social monthly report. This report will contain key information around the contractors' implementation of the environmental and social requirements and mitigation measures and will cover, among others:

- environmental and social assessment and improvement findings;
- incident notifications;
- non-conformances/non-compliances and corrective actions;
- key performance indicators;
- details of any environmental or social surveys or studies; and
- environmental and social training conducted.

##### *Quarterly Reporting*

The Project will prepare and submit to the relevant government departments a Project Environmental and Social Quarterly Report. The structure, content and format will be agreed with government prior to the commencement of work. This quarterly report will document key information on the Project's performance against the ESMP requirements.

##### *Incident Notification and Reporting*

Contractors will notify the Project immediately following any environmental or social incident. Project will ensure that all environmental and social incidents are appropriately documented, that the relevant parties are notified, and that reporting requirements around the incident are met.

## *Statutory Notifications and Reporting*

The Project and contractors will meet all statutory notification and reporting requirements.

### **17.3.8** *Managing Changes*

Changes in the Project may occur due to unanticipated Project developments. This EIA, for example, is being undertaken prior to the completion of the FEED stage of the Project. Wherever possible, the environmental and social mitigation measures that have the potential to impact design have been passed to the relevant FEED contractors during the EIA process. As the EIA progressed, certainty regarding the nature and magnitude of impact sources became clearer to the Project and the relevant changes were made to the EIA Report. Adaptive changes may also occur during Project commissioning and operations.

The Project will implement a formal procedure to manage changes that will apply to all Project activities. The process for dealing with Project changes and uncertainty recognises three levels of change/uncertainty:

- **Level One: Minor Significance**, where the change or uncertainty is largely deemed to be immaterial to the EIA findings, and does not affect the Project's ability to meet environmental and social performance requirements outlined in the ESMP. This change may require additional but limited environmental or social study or survey activities.
- **Level Two: Moderate Significance**, where the change or uncertainty is deemed to be material to the EIA findings, but is within the boundaries of the defined Project base-case covered by the EIA. This may require minor changes to the ESMP and additional surveys or environmental and social assessments.
- **Level Three: Higher Significance**, where a future significant change or uncertainty leads to a departure from the base-case, or a key aspect of it. An addendum to the EIA, or a new EIA and formal submission and approval process, is then required.

The abovementioned process will ensure that the Project is able to adapt to changes whilst meeting the relevant environmental and social performance requirements.

## **17.4** *COMMUNICATION TO STAKEHOLDERS*

As noted during the EIA public meetings held in September 2013, the Project is committed to engaging with and reporting to all stakeholders. As part of the project financing, an independent environmental and social consultant is

anticipated to be hired by the project lenders. Their auditing reports will be shared with stakeholders in a transparent manner, as they become available.