24 Managing Social and Environmental Impacts

24.1 Background and Objectives

This closing chapter of the Simandou Railway SEIA sets out how the Project proposes to manage social and environmental impacts and risks that will arise during design, construction, and operation of the Simandou Project. A key requirement of the Guinean regulations on Environmental Impact Assessment (Décret 199/PRG/SGG/89 du 8 novembre 1989 codifiant les études d'impact sur l'environnement - the EIA Decree) and of the International Finance Corporation (IFC) Policy on Environmental and Social Sustainability is that the SEIA should include the development of a Social and Environmental Management Plan (SEMP) for the Project. This chapter introduces the SEMP and full details are provided in Volume V of the SEIA Report.

The SEMP represents a consolidated list of commitments from the SEIA and aims to:

- set out the arrangements that will be put in place by the Project to manage the social and environmental performance of the Simandou Project;
- provide a comprehensive register of the Project's commitments regarding environmental and social mitigation so that these can be developed as specific management plans and procedures for implementation by all responsible parties within the Project Team including designers, supervisors, contractors, subcontractors, suppliers, and can be checked as the Project proceeds through final detailed design, to construction, operation and eventually closure;
- outline further studies and surveys that may be required to refine predicted impacts and design appropriate mitigation strategies;
- describe the monitoring programmes required to assess accuracy of predicted impacts and adequacy of mitigation strategies; and
- provide a framework for compliance auditing and inspection of the Project that will give the company, regulators and external stakeholders assurance that the Project's commitments to environmental mitigation and its aims with respect to social and environmental performance are being met.

The primary objectives will be to comply with:

- all applicable Guinean legislation including international conventions and treaties to which Guinea has acceded;
- the International Finance Corporation's Performance Standards and EHS Guidelines; and
- Rio Tinto policies, standards and guidelines.

Where these vary the most stringent standards will apply.

The scope of the SEMP covers the entire life-cycle of the Simandou Project, from completion of the final design, through construction and operation over the lifetime of the railway.

The SEMP will be delivered through a Simandou Health, Safety, Environmental and Communities Management System (HSEC-MS) operating under the overarching framework of Rio Tinto’s Health, Safety, Environmental and Quality Management System (HSEQ-MS) Standard. This is a single, consolidated standard that reflects international good practice, fully incorporates the requirements of ISO 14001 and OSHAS 18001 (1), and defines Rio Tinto requirements relating to the systems and procedures to be used by

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all operations to ensure effective management of environmental and social impacts and risks. If a business or project’s management system conforms to the Rio Tinto HSEQ-MS Standard, it will also comply with all the certification requirements of the international standards.

24.2 Managing Health, Safety and Environment – The Rio Tinto Approach

24.2.1 Overview

Achieving international best practice and meeting regulatory requirements for health, safety environment and community issues present a significant management challenge to Rio Tinto, both to individual businesses and to the Group. To address this challenge, Rio Tinto has developed a global programme, under which all Product Groups and their Business Units are required to meet the same standards of practice. This programme supports individual businesses and the Group as a whole in achieving their performance objectives by setting out policies, strategies, standards, internal controls, performance indicators and targets, along with technical systems and tools, to help manage risk and improve HSEC performance.

24.2.2 Rio Tinto’s Health, Safety, Environment and Quality Management System (HSEQ-MS) Standard

As part of this programme, the Rio Tinto HSE-MS Standard provides a single, consolidated statement of the requirements Rio Tinto Group businesses must meet. The management system standard is divided into seventeen elements illustrated in Figure 24.1 following the Plan, Do, Check and Review model.
Each element sets out to achieve a specific objective that enables a business or site to best identify and manage its various HSE threats and opportunities and the minimum requirements to meet each objective are clearly defined.

The Standard requires all Rio Tinto Group businesses to implement an integrated system for the management of health, safety, environment and, (where relevant) quality following this approach. The structure of the management system standard fully incorporates the requirements of international standards for environmental (ISO 14001) and health and safety (OHSAS 18001) management systems \(^{(1)}\). Compliance in this regard is verified through external audit by an independent Global Certification Provider. If a business or project’s management systems conform to the Rio Tinto HSEQ-MS Standard, they will also comply with all the certification requirements of these international standards.

24.2.3 Requirements

The requirements of the HSEQ-MS Standard with which the Simandou Project must comply in relation to social and environmental risks and impacts and the approach that the Project will adopt to meet these requirements are presented below.

24.3 The Simandou Project Health and Safety, Environmental and Communities Management System

24.3.1 Overview

The Simandou Project will incorporate the Communities “function” into the HSEQ MS framework to develop a Project-specific Health and Safety, Environmental and Communities Management System (HSECMS is being developed and will be implemented to meet the Rio Tinto HSEQ-MS Standard described in Section 26.2.2).

The current proposals for compliance with each of the requirements of the standard are presented below.

24.3.2 Element 1: Policy

| Element 1: The Project must develop a policy that establishes a clear set of values and objectives for the effective management of health, safety and environment (HSE) performance. It must be consistent with Rio Tinto’s codes of business practice.

The Policy must commit to:

a) The prevention of incidents that may lead to: injuries, illnesses, pollution, property and environmental damage, security threats, process losses and product quality impacts.

b) Compliance with legal and other requirements, including international accords and external requirements to which Rio Tinto or the business/activity subscribes.

c) The effective management of HSE risks.

d) Adopting leading practice in key HSE areas through continual improvement.

e) Establishing measurable objectives and targets for improving HSE performance.

f) Providing the resources needed to meet our performance objectives.

g) Encouraging employee participation and promoting employee awareness of HSE threats and opportunities.

h) Meeting customer requirements.

i) Respecting the standards of conduct defined in *The way we work*.


The Simandou Project has established a set of principles to guide its health, safety and environmental practice and performance. These are set out below.
These principles are founded in Rio Tinto’s approach to managing social and environmental risks as established in its global code of business conduct *The way we work* and in a comprehensive suite of policies established under this. These include policies on Environment, Communities, Health and Safety, Human Rights and Sustainable Development which together demonstrate the company’s commitment to caring for the environment and wellbeing of its staff and the community.

### 24.3.2.1 Rio Tinto Corporate Policies

#### Rio Tinto Environment Policy

Wherever possible we prevent, or otherwise minimise, mitigate and remediate, harmful effects of the Group’s operations on the environment.

Excellence in environmental performance is essential to our business success. Compliance with all environmental laws and regulations is the foundation on which we build our environmental performance. We support and encourage further action by helping to develop and implement internationally recognised management systems and voluntary commitments.

We similarly approach a comprehensive understanding of the full life cycle and safe use of our products to ensure all their benefits are delivered.

We promote active partnerships at international, national, regional, and local levels. They are based on mutual commitment, trust, and openness. Our relationships with communities involve consultation to open new facilities, to run existing ones and to close them at the end of their productive lives. In doing so, we support community based projects that can make a difference in a sustainable way without creating dependency. We also assist regional development and training, employment and small business opportunities. In developing countries, we are often asked to support health, education, and agricultural programmes and, in collaboration with others, we help where practical.

#### Rio Tinto Communities Policy

We set out to build enduring relationships with our neighbours that are characterised by mutual respect, active partnership and long term commitment.

Good management of community relationships is as necessary to our business success as the management of our operations. Good performance requires all of us to accept responsibility for community relationships. We detail local arrangements in rolling multi-year communities plans which are integrated with site’s operational planning and updated annually. The plans are set within the context of
this policy and apply throughout the life cycles of the Group’s activities.

Mutual respect depends on our understanding the issues that are important to our neighbours and our neighbours understanding what is important to us. Wherever we operate, we do our best to accommodate the different cultures, lifestyles, heritage and preferences of our neighbours, particularly in areas where industrial development is little known. Our communities and environment work is closely coordinated and takes account of peoples’ perceptions of the effects and consequences of our activities.

We promote active partnerships at international, national, regional and local levels. These are based on mutual commitment, trust and openness. Our relationships with communities involve consultation to open new facilities, to run existing ones and to close them at the end of their productive lives. In doing so, we support community based projects that can make a difference in a sustainable way without creating dependency. We also assist regional development, training and employment and small business opportunities. In developing countries, we are often asked to support health, education and agricultural programmes and, in collaboration with others, we help where practical.

### Rio Tinto Health and Safety Policies

We strive to protect our physical health and wellbeing in the workplace.

A healthy workforce contributes to business success. We are committed to preventing new cases of occupational disease and have a target of achieving a significant reduction in these cases year on year through the continual identification, evaluation and control of workplace exposures.

We have developed a set of core occupational health standards. We implement these standards in conjunction with education, training, and the incorporation of systems and procedures.

An assurance process entailing regular audits, reviews and reports measures compliance with our occupational health policy and standards.

Everyone’s behaviour contributes to an injury free workplace; full and consistent implementation of and accountability for Rio Tinto’s comprehensive standards, guidelines, systems and procedures is required across the world.

Alongside this, we are building a supportive safety culture that requires visible leadership, on-going education and training and a high level of participation by everyone in the workplace.

We place an uncompromising emphasis on hazard identification, risk assessment and risk management. We measure assurance through operational, corporate and external auditing and reporting processes.

### Rio Tinto Human Rights Policy

We support human rights consistent with the Universal Declaration of Human Rights and Rio Tinto respects those rights in conducting the Group’s operations throughout the world.

We seek to ensure that Rio Tinto’s presence fosters sound relationships and avoids civil conflict wherever we are. Rio Tinto respects and supports the dignity, wellbeing and human rights of Group employees, our families and the communities in which we live, as well as others affected by the Group’s operations.

Our Human Rights Framework, which is in line with our commitments under the OECD Guidelines for Multinational Enterprises and reflects the UN Guiding Principles on Business and Human Rights, has its foundations in human rights due diligence, carried out as part of our corporate processes.

Where human rights are threatened, we seek to have international standards upheld and to avoid any involvement in human rights abuses, including through misuse of our equipment and facilities.

Through appropriate contractual arrangements and procurement principles, we expect that our consultants, agents, contractors and suppliers will be made aware of and comply with The way we work in all their dealings with or on behalf of the Group. In our dealings with joint venture partners and non-controlled companies in which we participate, we will make every effort to ensure that the standards of conduct in The way we work are respected at all times.

The Group’s security procedures draw on and are consistent with our commitment to, and active participation in, the Voluntary Principles on Security and Human Rights. These procedures include guidelines and restrictions on the use of force, and are reinforced by security and human rights risk assessments for high risk sites, incident reporting, and training for Group employees and contract security personnel. We also actively encourage human rights training for public security where we identify a gap, and help to facilitate this training in certain circumstances.

We respect the diversity of indigenous peoples, acknowledging the unique and important interests that they have in the land, waters and environment as well as their history, culture and traditional ways.

Wherever we operate, we engage with communities and seek to understand the social, cultural, environmental and economic implications of our activities, so that we can respond to concerns and work to optimise benefits and reduce negative impacts, both for the local community and for the overall economy. We believe that this contribution to development, together with our community
engagement programmes (which may include enterprise development, training, employment, community-based health and social and cultural heritage initiatives) can further contribute to the realisation of human rights.

**Rio Tinto Sustainable Development Policy**

Rio Tinto businesses, projects, operations and products should contribute constructively to the global transition to sustainable development.

We contribute to sustainable development by helping to satisfy global and community needs and aspirations, whether economic, social or environmental. This means making sustainable development considerations an integral part of our business plans and decision making processes.

By focussing on people, the environment, resource stewardship and management systems, we can better manage risk, create business options, reduce costs, attract the best employees, gain access to new markets and resources and deliver a better product to our customers.

In practice, this depends on the active awareness of and support for Rio Tinto’s principles and policies by each of us as individuals. Wherever possible we prevent, or otherwise minimise, mitigate and remediate, harmful effects of the Group’s operations on the environment

### 24.3.3 Element 2: Legal and Other Requirements

Element 2: The Project must comply with all legal and other HSE requirements and conform to internal Rio Tinto standards, policies and other obligations.

The Project is committed to meeting all requirements of Guinean law and of international conventions to which Guinea is a signatory, and to the IFC’s Policies and Performance Standards on Environment and Social Sustainability including:

- Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts;
- Performance Standard 2: Labour and Working Conditions;
- Performance Standard 3: Resource Efficiency and Pollution Prevention;
- Performance Standard 4: Community Health, Safety and Security;
- Performance Standard 5: Land Acquisition and Involuntary Resettlement;
- Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources; and
- Performance Standard 8: Cultural Heritage \(^1\).

It will also reference the IFC’s Environment, Health and Safety Guidelines including:

- the general EHS Guidelines;
- the sectoral EHS Guidelines relating to Mining, Railways, Roads, Ports and Power; and
- various supporting Good Practice Notes and Handbooks.

Finally it will comply with Rio Tinto Corporate standards as set out in the following documents:

- Biodiversity strategy;
- Closure standard;
- Communities standard;
- Diversity and inclusion policy;
- Employment policy;
- Guidance for managers on implementing the human rights policy;
- Rio Tinto’s climate position;

\(^1\) Performance Standard 7: Indigenous Peoples is excluded as there are not considered to be any peoples meeting the definition of indigenous in the Project area.
- Risk policy and standard;
- Safety Policy;
- Performance standard B1 - Particulate and gas / vapour exposures;
- Performance standard B2 - Hearing conservation;
- Performance standard B3 - Manual handling and vibration;
- Performance standard B4 - Hazardous substances;
- Performance standard B5 - Radiation;
- Performance standard B6 - Thermal stress;
- Performance standard B7 - Fitness for work;
- Performance standard B8 - Legionnaires disease;
- Performance standard B9 - Travel and remote site health;
- Performance standard B10 - Occupational exposure limits;
- Performance standard B11 - HIV/AIDS;
- Performance standard C1 - Isolation;
- Performance standard C2 - Electrical safety;
- Performance standard C3 - Vehicles and driving;
- Performance standard C4 - Working at heights;
- Performance standard C5 - Confined spaces;
- Performance standard C6 - Cranes and lifting equipment;
- Performance standard C7 - Aviation Safety;
- Performance standard D1 - Underground;
- Performance standard D2 - Molten Materials;
- Performance standard D3 - Management of pit slopes, stockpiles, spoil and waste dumps;
- Performance standard D4 - Marine Safety;
- Performance standard E3 - Acid rock drainage prediction and control;
- Performance standard E2 - Air quality control;
- Performance standard E4 - Greenhouse gas emissions;
- Performance standard E5 - Hazardous materials and contamination control;
- Performance standard E9 - Land use stewardship;
- Performance standard E8 - Mineral waste management;
- Performance standard E6 - Noise and vibration control;
- Performance standard E7 - Non mineral waste management; and
- Performance standard E10 - Water use and quality control.

These regulatory requirements, standards and guidance have been taken into account in the SEIA and the assessment has identified a wide range of commitments and measures to mitigate social and environmental impacts and meet the standards of environmental and social performance required of the Project.

These commitments define the register of requirements which the Project must meet and are set out in Sections A to Y of the Register of Commitment presented in Chapter 4 of Volume V: SEMP. These tables will form the basis for development of detailed operational controls (see Element 10: Operational Control). They will be kept up to date to include any new requirements that emerge as a result of changes in legislation or standards, or as conditions are attached to specific permits granted for the Project by the Guinean regulatory authorities.

24.3.4 Element 3: Hazard Identification and Risk Management

Element 3: The Project must analyse and manage HSE risks using a common approach. Action plans must be developed to treat all HSE risks, with particular emphasis and priority placed on those evaluated as being above the established risk acceptance threshold. The action plan must control the risk to be As Low As Reasonably Practicable (ALARP).

The SEIA has identified the impacts and risks that may arise as a result of the Project and has evaluated these against accepted standards and criteria. The mitigation measures identified through the SEIA have
been selected following the principle that impacts and risks should be avoided or eliminated where possible, or if they cannot be avoided should be minimised by engineering and process controls, management techniques or use of protective equipment. To the extent that impacts still occur they should then be addressed by measures to remedy and restore or compensate for the adverse impact.

In accordance with the HSEQ-MS, plans and procedures will be developed to treat all significant risks with the objective of reducing risks to be as low as reasonably practicable (ALARP). The framework for these proposed Plans is presented in Element 10: Operational Control.

24.3.5 Element 4: HSE Management Improvement Planning

Element 4: The Project must establish processes and plans to manage HSE performance and to provide for continual improvement.

The Project will establish an Annual Improvement Plan. This will set out objectives and targets for HSE performance taking into account the results of monitoring, auditing and inspection (see Elements 13 and 16) and will be consistent with Rio Tinto Group objectives and targets. The Annual Improvement Plan will specify the resources needed to meet the objectives and responsibilities for implementing the Plan, and will establish timeframes for completion. Progress will be reviewed at regular and planned intervals.

24.3.6 Element 5: Organisation Resources, Accountabilities and Responsibilities

Element 5: Resources, responsibility and accountability must be appropriately allocated for the maintenance and continual improvement of HSE management. All roles with HSE accountability and responsibilities (including legislative requirements) must:

a) be documented in role descriptions; and

b) be included in a HSE organisation chart specific to the business or managed site.

Where contractors are involved, these areas of accountability and responsibility must be clarified with respect to those contractors.

The structure of the organisation for HSEC management during construction and operation of the Simandou Project is set out in Figure 24.2. It will be noted that the structure will change between construction and operation. During construction the Project will deliver HSE performance through the Engineering, Procurement and Construction Manager (EPCM) who will be responsible for ensuring that the system is applied and that all requirements are met by contractors and subcontractors engaged in construction of the Project. Responsibility for managing socio-economic impacts and risks during construction will remain with Simfer and be under the management of Simfer’s Communities and Economic Development Department.

During operations and closure all responsibilities for health, safety, environment and communities will rest with the Simandou Project under the direction of the Simandou Managing Director. Various other departments will be involved in assisting with the delivery of certain social and environmental commitments. As an example, the Procurement Department will assist in ensuring suppliers comply with the Project’s requirements relating to environmental and social performance of goods and services and Human Resources will be responsible for implementing the Project’s policies on local recruitment.
Overall accountability for the Project’s HSE performance during construction resides with the Simandou Project Director. The Project Director will also be responsible for elements of community performance where it relates to Contractors (e.g. Workforce Code of Conduct and Industrial Relations), whilst overall governance, remains with Simfer. During operations and closure, full HSEC accountability resides with the Simfer Managing Director.

The Project and Managing Directors will be responsible for ensuring the necessary Health, Safety, Environmental and Community resources are appointed to support the on-going operation of the HSEC-MS.

At a local level, Site Managers will be responsible for implementation of operational controls on site and for on-going supervision of day-to-day activities.

When contractors are commissioned to undertake specific activities they will only be engaged on the condition that they operate at all times in accordance with the Project HSEC-MS. This requires them to take ownership of the risks and potential impacts associated with their activities, implement the required mitigation measures outlined in this SEMP and additional management plans and procedures, and effectively manage, monitor and audit risks and potential impacts. Site Managers will provide oversight to ensure that this occurs and social and environmental impacts and risks are managed in an appropriate manner.

24.3.7 Element 6: Training, Awareness and Competence

Element 6: Processes must be established to provide the requisite training, competency and awareness to effectively manage HSE risks.
All Project personnel, including people employed by contractors, subcontractors and suppliers, must have the necessary competences and are aware of the risks associated with their work, of their responsibilities for managing those risks, and of any plans, procedures or instructions that must be followed relating to management of those risks. Competency profiles and selection criteria will be developed for all roles, defining requisite training, education, skills and/or experience.

As a minimum, the following awareness training will be provided:

- general induction to Rio Tinto’s approach to managing HSEC;
- awareness of the Group HSEC standards;
- understanding of HSEC management system processes implemented at the site;
- significant HSEC risks and activities;
- accountabilities of specific HSEC roles and their responsibilities;
- consequences of departure from specified procedures or Group standards; and
- emergency response procedures and the business resilience and recovery programme.

Appropriate records of training will be kept and the effectiveness of training will be evaluated.

24.3.8 Element 7: Supplier and Contractor Management

Element 7: HSE risks associated with procured materials, equipment, services and labour must be effectively managed.

All requirements of this SEMP, the HSEC-MS and all operational controls developed as part of the management system will apply equally to all contractors and subcontractors engaged in the design, construction, operation or closure of the Project. To the extent relevant these requirements will also be applied to suppliers of goods and services to the Project.

24.3.9 Element 8: Documentation and Document Control

Element 8: Documentation required for the effective operation of the management system must be distributed and controlled.

The Simandou HSEC-MS will be documented and all documents will be controlled to ensure that correct versions are used at all times.

24.3.10 Element 9: Communication and Consultation

Element 9: The Project must effectively engage with internal and external stakeholders on the management of health, safety and environment.

The Project will engage with internal and external stakeholders on the management of HSE.

For internal stakeholders, it will establish a process for engagement and participation of employees and contractors in activities to promote HSEC, in investigation of incidents and in development of HSEC policy and objectives. There will be regular internal communications about HSEC matters including regular meetings and briefings.

For external stakeholders, the Project will maintain and keep up to date an appropriate plan for engagement, building upon the existing Simandou Stakeholder Engagement Plan. This will include plans for communication about management and performance in relation to significant HSEC risks. An annual report will be provided in the Simandou Sustainable Development Report and the reports of independent auditors appointed by IFC will also be made available to the public.
24.3.11 Element 10: Operational Control

Element 10: HSE risks associated with the business or site’s work activities must be managed. This will be achieved by implementing the HSE performance standards, as well as other mandated or necessary risk treatment processes to control the risk to As Low As Reasonably Practicable. There must be a process for the development of procedures or work instructions that detail the controls required to treat the HSE risks associated with work activities. These procedures must reference applicable operating criteria, be communicated, be available to the appropriate users, and be followed.

All equipment or services provided by third parties, must be inspected, and have the controls verified to ensure the safe operation, and adherence to health, safety and environment performance objectives.

The social and environmental impacts and risks associated with the design, construction, operation and closure of the Project will be managed through the HSEC-MS by establishing Plans, Procedures and Work Instructions that detail the controls needed to comply with the requirements and commitments identified through the SEIA and with any changes to these that may emerge during the subsequent development of the Project or as a result of conditions attached to permits and approvals obtained for the Project. These will apply to all parties engaged in development and implementation of the Project including Simfer, the EPCM, and all contractors and subcontractors engaged during final design, construction and operation. The structure within which operational control will be established is illustrated in Figure 24.3.

**Figure 24.3 Structure for Operational Control of HSEC Impacts and Risks**

<table>
<thead>
<tr>
<th>Rio Tinto Health, Safety, Environment and Quality Management System Standard</th>
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<tbody>
<tr>
<td>Simandou Project Health, Safety, Environment and Communities Management System</td>
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<tr>
<td>Operational Controls</td>
</tr>
<tr>
<td>SEMP – Register of Mitigation Commitments (this document)</td>
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<tr>
<td>Environmental Management Framework</td>
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<tr>
<td>Programmes, Plans and Procedures</td>
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</tbody>
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### Figure 24.4 Simandou Environmental Management Framework

<table>
<thead>
<tr>
<th>Legislation / Rio Tinto &amp; IFC Standards and Guidelines</th>
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<tr>
<td>Simandou HSEC-MS</td>
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<tr>
<td>Construction</td>
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<tr>
<td>Operations</td>
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<td>Closure</td>
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#### Environmental Management Plans and Procedures

<table>
<thead>
<tr>
<th>Land Use Stewardship</th>
<th>Biodiversity</th>
<th>Water</th>
<th>Mineral Waste</th>
<th>Air, Noise &amp; GHG</th>
<th>Resource Use &amp; Waste</th>
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<tr>
<td>Pre-clearance Surveys</td>
<td>Priority Species and Habitats</td>
<td>Water Abstraction and Supply</td>
<td>Acid Rock Drainage</td>
<td>Dust Controls</td>
<td>Non-mineral Waste Management</td>
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<td>Ground Disturbance</td>
<td>Habitat Connectivity</td>
<td>Drainage Designs</td>
<td>Rail and Tunnel Spoil</td>
<td>NOx / SOx / Greenhouse Gases</td>
<td>Reuse and Recycling</td>
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<td>Soil Protection and Erosion Control</td>
<td>Monitoring and Evaluation</td>
<td>Catchment Mapping</td>
<td>Rehabilitation</td>
<td>Noise and Vibration Controls</td>
<td>Landfill and Other Waste Management Facilities</td>
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<td>Tossile Management</td>
<td>Net Positive Impact</td>
<td>Storm Water Management</td>
<td>Emplacement Design</td>
<td>Blasting Practices</td>
<td>Efficient Treatment and Disposal</td>
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<tr>
<td>Rehabilitation and Landscaping</td>
<td>Partnerships</td>
<td>Discharge Criteria</td>
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<td>Discharge and Ambient Criteria</td>
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<td>Contaminated Sites</td>
<td>Pic de For Management Plan</td>
<td>Community Use</td>
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<td>Mine Closure</td>
<td>Bushmeat and Trafficking</td>
<td>Mine Dewatering Management</td>
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<td>Decommissioning</td>
<td>Induced Access and In-migration</td>
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<td>Acid sulphate soils</td>
<td>Chimpanzee Management</td>
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<td>Invasive and Alien Species</td>
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#### Monitoring & Evaluation Programmes

- Training and Awareness
- Emergency Response Planning
- Internal and External Reporting Requirements
- Inspection and Auditing Programme
Figure 24.5 Simandou Social Management Framework

- Vision and Objectives
- Organisation
- Funding
- Programmes
- Schedule
- Communication
- Monitoring and Evaluation

**SOCIAL MANAGEMENT FRAMEWORK**

**Programme Development**

- Prioritisation
  - Project Affected Peoples Beneficiaries
  - Impacts and Risks
  - Project Phase

- Alignment
  - Development Policies
  - Regional Development Forum PACV
  - Studies and Analysis

**Regional Development Strategy**

- Urban and Rural Planning
  - Resettlement and Livelihood Restoration (PARC Framework and Implementation)
  - In-Migration
  - Employee Housing
  - Infrastructure

- Employment Creation and Livelihoods
  - Agriculture and Food Security
  - Local Procurement
  - SME Development
  - Employment and Work Readiness

- Community Health, Safety, and Security
  - Community Health
  - Community Safety and Security
  - Human Rights

- Cultural Heritage and Awareness
  - Tangible Heritage
  - Intangible Heritage

**Stakeholder Engagement**

- Capacity Building
- Consultation, Information Exchange, and Partnerships
  - Civil Society and NGOs
  - Private Sector

- Grievance Management
Further details on the two main strands of operational controls deriving from the SEIA – the Environmental Management Framework and the Social Management Framework are provided in Figure 24.4 and Figure 24.5 and the current Register of Mitigation Commitments is presented in Chapter 4 of Volume V: SEMP.

The suite of programmes and plans identified in Figure 24.4 and Figure 24.5 are currently being developed and they will include all the mitigation measures identified in the Register of Mitigation Commitments in Chapter 4 of Volume V: SEMP. Each will:

- clearly identify and categorise actions;
- provide formal confirmation that actions will be implemented;
- prioritise actions;
- assign responsibilities, resources and schedules for implementation;
- define how actions will be implemented;
- define how they will be tracked and reported;
- define how the effectiveness of the actions will be monitored, verified and communicated; and
- define how trends will be analysed to communicate long term performance.

As a next step to developing these programmes and plans the Project will undertake further studies to detail the mitigation measures identified in this report. For environmental measures this will include further investigations including surveys and modelling needed to specify mitigation measures for specific locations (for example, noise barriers and rehabilitation planting) once the design is finalised. For social measures these activities will include:

- further socio-economic surveys, currently underway through the PARC Framework, to collect detailed information on households and settlements anticipated to be affected by the Project; and
- in-migration studies to collect socio-economic data within settlements anticipated to experience high levels of influx and focused on mitigating impacts on land, land-based resources, water, and infrastructure.

Development of programme and plans will also require continuing stakeholder engagement to ensure mitigation is designed and implemented taking into account the view of affected people and other interested parties.

Data collection and stakeholder engagement activities will be scheduled in advance of Project phase transitions (eg design to construction, construction to operation) to allow for the timely development of appropriate mitigation measures and the updating of programmes and plans. Should the activities reveal distinct differences between communities, the Project will also consider the development of community-specific impact management plans.

24.3.12 Element 11: Management of Change

Element 11: There must be a procedure to identify and manage changes to any business processes that may impact on HSE performance. Changes may be:

a) planned or unplanned;
b) sudden or gradual;
c) temporary or permanent.

The procedure must include an analysis of the risks associated with a change.

Any changes or modifications to the SEMP will be managed in line with management of change procedures within the Simandou Project Health, Safety, Environment and Communities Management System.

As a minimum, the results of SEIA and the SEMP will be updated:

- following receipt of any conditions attached to approval of the SEIA from the Republic of Guinea;
• to incorporate any environmental or social conditions attached to other permits and approvals required for the Project;

• in the event of any change in Project design or execution strategy that could result in a material change in impact; and

• following receipt of monitoring results.

In addition, implementation of and performance against the SEMP will be monitored and regularly audited internally and by independent external auditors (see Element 16 below) and where changes to measures are proposed as consequence of this they will be incorporated into the SEMP and into subsidiary programmes, plans and procedures developed to implement the SEMP.

24.3.13 Element 12: Business Resilience and Recovery

Element 12: The appropriate resources and incident response plans must be prepared, practiced and available to provide an effective response for the mitigation, control and recovery from incidents which can impact or disrupt the business and/or its managed site(s) and activities.

An Emergency Prevention, Preparedness and Response Plan (EPPRP) for the Simandou Project will be prepared to provide an effective response for the mitigation, control and recovery from incidents which can impact or disrupt the business and/or its managed site(s) and activities. Identified risks include:

• major loss of hydrocarbon containment to land, inland water or the sea;
• contamination of land, inland water or the sea due to accidental release of other hazardous materials;
• loss of containment from landfill leading to contamination of soil / groundwater;
• catastrophic event such as collision leading to spill and fire;
• forest fire;
• traffic accidents involving road or rail vehicles including accidents causing harm to or loss of life, derailment, vehicle collisions;
• serious harm / fatality affecting protected species (eg chimpanzees);
• public protests;
• labour unrest;
• accident with significant community safety consequences;
• accidents causing loss of or harm to Company and third party assets; and
• incidents causing harm to Company image and reputation.

The EPPRP will establish clearly defined roles and responsibilities of members of the Emergency Response Team and of all staff involved in the occurrence or management of emergency events and their consequences. The EPPRP will be tested and validated by an annual desktop exercise and a full scale exercise every 2 years.

24.3.14 Element 13: Measuring and Monitoring

Element 13: There must be a process for regularly measuring and monitoring the key characteristics of the Project and its work activities that could have significant health, safety, environment risks. Procedures to control the process must be implemented

Monitoring of HSEC impacts and risks will be undertaken to:

• check compliance of emissions and discharges with relevant standards and the Simandou Project's environment, social and community health objectives;
• confirm the severity of actual impacts, particularly where there is uncertainty in predictions made during the SEIA;

• provide an early warning that control measures or processes are failing to achieve their desired outcomes;

• determine as far as is practicable whether environmental, social and community health changes that are observed to be occurring are attributable to Simandou Project activities or are the result of other activities or natural variation; and

• provide the basis for continual review and improvement in Project design and execution.

Monitoring commitments have been established taking into account:

• uncertainties identified in the SEIA;
• the significance of the Simandou Project to its external stakeholders;
• environmental, social and community health changes / trends and their detection; and
• internationally and locally accepted practices in Guinea and the Project’s HSEC management:

• objectives;
• practical issues; and
• the balance of costs and benefits.

Topics for which a requirement for monitoring has been identified through the SEIA are listed in Table 24.1. Details of methods, frequency of measurements and measurement locations will be developed for all these parameters in detailed monitoring plans developed as part of the construction, operational and closure management plans and the Communities and Economic development strategy. Monitoring requirements will be kept up to date where new requirements emerge and as a result of review of past monitoring findings and the results of audits and reviews.

Table 24.1 Established Monitoring Requirements

<table>
<thead>
<tr>
<th>Physical Environment</th>
<th>Land Stewardship and Biodiversity</th>
</tr>
</thead>
<tbody>
<tr>
<td>• air emissions and resulting air quality</td>
<td>• success of land rehabilitation and re-vegetation</td>
</tr>
<tr>
<td>• noise levels</td>
<td>• presence or spread of invasive alien species</td>
</tr>
<tr>
<td>• abstraction and use of water</td>
<td>• wildlife crossings</td>
</tr>
<tr>
<td>• surface water flows and quality</td>
<td>• hunting pressure, bushmeat consumption and trafficking</td>
</tr>
<tr>
<td>• seawater and marine sediment quality</td>
<td>• distribution and populations of key species</td>
</tr>
<tr>
<td>• coastal morphological changes eg accretion and/or erosion of beaches</td>
<td>• impacts on other priority flora and fauna species</td>
</tr>
<tr>
<td>• biodiversity threat reduction</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sustainable Resource Use</th>
<th>Economy and Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>• use of material and energy resources</td>
<td>• local and Guinean employment and procurement</td>
</tr>
<tr>
<td>• greenhouse gas emissions</td>
<td>• resettlement and restoration of livelihoods of people subject to physical or economic displacement</td>
</tr>
<tr>
<td>• waste arisings and re-use, recycling and disposal</td>
<td>• in-migration</td>
</tr>
<tr>
<td>• impacts on vulnerable groups</td>
<td>• prices and inflation</td>
</tr>
<tr>
<td>• community health</td>
<td>• recruitment, labour and working conditions and accommodation</td>
</tr>
<tr>
<td>• accommodation</td>
<td>• grievance management</td>
</tr>
</tbody>
</table>
24.3.15 Element 14: Non-conformance, Incident and Action Management

Element 14: There must be a procedure for the management of all incidents.

The Simandou Project will prepare a procedure for the management of all incidents as part of the Emergency Prevention, Preparedness and Response Plan (see Element 12). This will include:

a) recording;
b) investigating;
c) analysis of the impact(s) and the potential risk of future incident;
d) communicating to relevant people / groups; and
e) managing corrective actions to prevent reoccurrence.

The hazard identification, risk assessment and management processes will be effectively implemented across all Project operations to prevent the occurrence of incidents.

Non-conformances with the requirements of the management system will be identified and addressed through monitoring (see Element 13) and inspections and audits (see Element 16) and appropriate corrective and preventive actions will be identified, implemented and tracked through to completion and satisfactory outcomes.

24.3.16 Element 15: Data and Records Management

Element 15: There must be a process for the systematic control of HSE records and their related data.

In order to manage and maintain all the data requirements for the Simandou HSEC-MS and ensure that records are current and secure, the Simandou Project will establish a process for the systematic control of HSE records and their related data. The process must define controls for:

a) creation;
b) receipt;
c) secure storage;
d) maintenance;
e) access;
f) use; and
g) disposal.

The retention periods for all records will be established and documented.

24.3.17 Element 16: Performance Assessment and Auditing

Element 16: HSE performance must be measured on a regular basis and include an evaluation of:

a) the extent to which objectives are being met;
b) progress against targets;
c) the effectiveness of controls;
d) proactive conformance measures; and
e) reactive or historical performance measures.

There must be a process for conducting audits and regular inspections of all work areas. This should be designed taking into account:

a) the level of evaluated risk associated with specific activities that the business or site undertakes;
b) the identification of non-conformances with standards, and system requirements;
c) the identification of hazards; and
d) Compliance to legal and other requirements as identified and recorded in the compliance and conformance register.
The results of previous audits and inspections.

24.3.17.1 Auditing and Inspections

An audit and inspection programme will be developed and applied throughout the Project lifetime. The objective of this is to:

- check that practices conform with planned arrangements including implementation of mitigation and management measures and compliance with legal and Project commitments;
- identify where existing planned arrangements (eg measures outlined in the SEMP) do not meet the needs of the Project or can be improved; and
- establish information which can be used by management to continually improve performance.

The check and feedback process will be based on visual site inspections and more formalised site audits. Site audits will use appropriate protocols (according to the type / phase of operation) prepared by relevant personnel.

Inspection and audit frequencies will be established, and may be increased or decreased according to the findings and degree of confidence arising from the on-going programme.

The programme will encompass regular workplace inspections conducted by construction and operations staff; internal audits conducted by qualified HSE personnel; and independent external audits. Where non-conformances are identified these will be reported to site management, appropriate corrective and preventive actions will be identified and agreed, and these will checked on following visits until conformance is confirmed. All inspection and audit findings will be reported and appropriate corrective and preventive actions will be identified and agreed, and these will checked on following visits until conformance is confirmed.

24.3.17.2 Reporting

The Simandou Project will prepare and publish regular reports on its HSEC performance and it will include results of monitoring and audit findings. Performance will be communicated to the Project stakeholders including Government of Guinea, and Project affected communities. Where necessary, performance reports and their communication will be tailored to suit stakeholder needs and circumstance. A Reporting program will be developed and kept up to date to ensure all requirements are met. A report will be published at least annually on the HSEC performance of the Project.

24.3.18 Element 17: Management Review

Element 17: There must be a procedure for completing a review of the management system, at least annually.

The HSEC-MS will be subjected to annual review and development to ensure that it remains appropriate for all aspects of the Project. The review will assess all aspects of the management system to check that it is meeting the Project’s objectives, identify any need for change and establish actions to improve the system, its processes and resource needs. The review will be led by senior management and consider:

a) the suitability of the policy;
b) the impact of changing legislation;
c) the management of risk registers;
d) HSE objectives, targets and performance indicators;
e) changing expectations and requirements of relevant stakeholders / communities (including complaints);
f) changes in the products or activities of the organisation;
g) changes to the structure of the organisation;
h) communication and feedback (particularly from employees and customers);
i) the effectiveness of the management of change process;
j) workplace, environmental and medical monitoring;
k) the status of corrective and preventive actions;
l) performance statistics, including an annual summary of safety statistics, occupational hygiene, medical and environmental monitoring results;
m) findings of completed audits and reviews;
n) follow up on actions from previous management reviews; and
o) recommendations and opportunities for improving the effectiveness of the management system.