ESWATINI

ESWATINI ELECTRICITY COMPANY

ACCELERATING SUSTAINABLE AND CLEAN ENERGY ACCESS TRANSFORMATION (ASCENT) ESWATINI

PROJECT ID NO: P508960

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

For The Construction of the Distribution Network and Installation of Home Solar Systems

November 2025

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Figures

Tables

ACRONYMS

º	Degrees
ºC	Degrees Celsius
ASCENT	Acerating Sustainable and Clean Energy Transformation
CESMP	Contractor Environmental Social Management Plan
CLO	Community Liaison Officer
CMAC	Conciliation Mediation and Arbitration Commission
CMP	Comprehensive Mitigation Plan
CO	Carbon Monoxide
CO_2	Carbon Dioxide
COVID-19	Coronavirus Disease
ROW	Right of Way

CROW	Construction Right of Way
PROW	Permanent Right of WayE&S Environment and Social
EAR	Environmental Assessment Regulation
EEA	Eswatini Environment Authority
EEC	Eswatini Electricity Company
EHS	Environment Health and Safety
EHSS	Environmental, Health and Safety and Social
EMA	Environmental Management Act
ESCP	Environmental and Social Commitment Plan
ESF	Environmental and Social Framework
ESHS	Environmental, Social, Health and Safety
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESSs	Environment and Social Standards
FAO	Food and Agricultural Organization of United Nations
GBV	Gender-Based Violence
GIIP	Good International Industry Practice
GoKE	Government of the Kingdom of Eswatini
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
HDI	Human Development Index
HIV/AIDS	Human Immune Virus/ Acquired Immune Deficiency Syndrome
IEE	Initial Environmental Evaluation

IFC	International Finance Corporation
ILO	International Labor Organization
IMS	Integrated Management System
IPF	Investment Project Finance
IUCN	The International Union for Conservation of Nature
Km	Kilometre
Km^2	Square kilometres
kV	Kilovolt
LGTBI	Lesbian, Gay, Bisexual, Transgender and Intersex persons
LMP	Labor Management Procedure
m	Meters
M&E	Monitoring and Evaluation
MHUD	Ministry of Housing and Urban Development
MNRE	Ministry of Natural Resources and Energy
MoAC	Ministry of Agriculture and Cooperatives
MoAC	Ministry of Agriculture and Cooperatives
MSDS	Material Safety Data Sheet
MV	Megavolt
MVA	Megavolt Ampere
MVms	Mkhondvo Valley
Mz	Mozaan Group
NATICC	The Nhlangano AIDS Training Information and Counselling Center
NEP	National Energy Policy
NGO	Non-Governmental Organization

NO_x	Nitrogen Oxides
NRAP	Network Access and Reinforcement Project
NSC	National Steering Committee
OE	Owners Engineer
OECD	The Organisation for Economic Co-operation and Development
OCHSIP	Occupational and Community Health and Safety Implementation Plan
OHS	Occupational Health and Safety
PA	Protected Areas
PAP	Project Affected People
PCP	Project Contact Person
PIA	Project Implementation Agency
PIU	Project Implementation Unit
PM	Project Manager
PPE	Personal Protective Equipment
PSC	Planning Steering Committee
R&D	Research and Development
RA	Regional Administrator
RAP	Resettlement Action Plan
REP	Rural Electrification Programme
REU	Rural Electrification Unit
RPF	Resettlement Policy Framework
SCADA	Supervisory Control and Data Acquisition
SDG	Sustainable Development Goals
SDO	Social Development Officer

SEA/SH	Sexual Exploitation and Abuse/Sexual Harassment
SECIES	EEC's Engineering Information and Standards
SEP	Stakeholder Engagement Plan
SHERQ	Safety Health Environment Risk and Quality
SNL	Swazi Nation Land
SO_2	Sulphur Dioxide
STI	Sexually Transmitted Infections
TPM	Third Party Monitor
UDP	Urban Development Plan
UNDP	United Nations Development Programme
WB	World Bank

1 INTRODUCTION

This Environmental and Social Management Framework (ESMF) has been developed to guide the environmental and social due diligence for activities under Component 1 and Component 2 of the Accelerating Sustainable and Clean Energy Transformation (ASCENT) project, which is financed by the World Bank.

The Government of the Kingdom of Eswatini (GoKE) is the Borrower, represented by the Ministry of Natural Resources and Energy (MNRE), the line ministry responsible for the energy sector. The Eswatini Electricity Company (EEC) has been designated as the Implementing Agency and is responsible for day-to-day project implementation on behalf of the Borrower. The project seeks to improve the reliability of electricity supply and connect 50,000 households nationwide, contributing to the country's goal of achieving universal access to electricity by 2030.

This ESMF follows the World Bank Environmental and Social Framework (ESF) as well as the Environmental Management Act 2002 and Environmental Assessment Regulation 2022 of Eswatini. The objective of the ESMF is to assess and mitigate potential negative environmental and social risks and impacts of the Project consistent with the Environmental and Social Standards (ESSs) of the World Bank ESF and national requirements. More specifically, the ESMF aims to:

(a) assess the potential environmental and social risks and impacts of the proposed Project and propose mitigation measures;
(b) establish procedures for the environmental and social screening, review, approval, and implementation of activities;
(c) specify appropriate roles and responsibilities, and outline the necessary reporting procedures, for managing and monitoring environmental and social issues related to the activities;
(d) identify the staffing requirements, as well as the training and capacity building needed to successfully implement the provisions of the ESMF;
(e) address mechanisms for public consultation and disclosure of project documents as well as redress of possible grievances; and
(f) establish the budget requirements for implementation of the ESMF.

This ESMF should be read together with other plans prepared for the project, including the Stakeholder Engagement Plan (SEP), the Labour Management Plan (LMP) and Occupational and Community Health and Safety Plan (OCHSIP), all in line with the Environmental Social Commitments Plan (ESCP), including its provisions on ESS5

2 PROJECT DESCRIPTION

Below is description of the ASCENT project component the ESMF is applicable to:

2.1 Subcomponent 1b: Distribution network reinforcement (US$43 million)

Specific activities will include:

(a) construction of new substations and feeders;

(b) construction of new MV and LV distribution lines;

(c) upgrade of existing MV lines and substations;

(d) installation of remotely controlled protection equipment (auto-reclosers);

(e) installation of transformers,

(f) protection scheme, metering, and system operation and control enhancement, and

(g) installation of fiber optical cables.

All this equipment will integrate higher standards to enhance resilience against climate-related hazards, such as floods and higher temperatures. These improvements are part of a comprehensive approach to building a more robust and climate-resilient power infrastructure.

2.2 Component 2: Electricity Access Expansion (US $56 million)

This component involves both on-grid and off-grid electrification activities to support the GoKE achieving universal access to electricity by 2030 by connecting 50,000 households.

2.2.1 Subcomponent 2.1: On-grid peri-urban and rural electrification: last mile connectivity (US$47 million)

This sub-component involves connection of non-electrified household and public facilities in peri-urban and targeted rural areas of the country into the grid. Specific activities will include:
(a) low voltage reticulations; and

(b) supply and installation of ready boards for households who are unable to afford the cost of household wiring.

2.2.1.1 Subcomponent 2.1.1: On-grid last mile connectivity (US$37 million)

This sub-component involves connection of non-electrified household in peri-urban and rural areas of the country into the grid including last mile electrification activities in Shiselweni region which will not be completed under the Network Reinforcement and Access Project (P166170) because of shortage of funding. Specific activities which will be financed under this Component will include:

(a) 11kV lines and low voltage reticulations.

(b) supply and installation of ready boards for households who are unable to afford the cost of household wiring.

(c) capacity building for electrical contractors.

(d) cost of service study and financial viability assessment model; and

(e) hiring of an Independent Verification Agent (IVA) for the verification of the Performance Based conditions (PBCs). As for component 1, this equipment will integrate higher standards to enhance resilience against climate-related hazards.

It is estimated that about 35,000 new households will be connected due to the construction and upgrade of MV lines and substations and low voltage reticulations.

2.2.1.2 Subcomponent 2.1.2: On-grid last mile connectivity with PBCs (US$10 million)

This component includes;

(i) grants in the form of performance-based and catalytic grants, to be provided to off-grid solar system providers who will provide electricity access to households, businesses, farmers that are not reached by the grid;

(ii) technical assistance activities to support the design and implementation of off-grid electrification activities.

2.2.2 Subcomponent 2.2: Off-grid electrification (US$9 million)

This Sub-component entails the establishment of Off-grid Finance Facility to mitigate risk and improve overall viability in the deployment of Stand-Alone Solar Home Systems to provide electricity connection to remote rural households. It will provide results-based and catalytic grants to ensure affordability.

Based on the results of the least-cost geospatial planning exercise conducted in 2022, 15,000 households mostly located in rural areas could be connected through solar home system deployment. Energy access, though SHS solutions, is key to building resilience and this facility will help vulnerable communities better adapt to climate change.

2.2.2.1 Subcomponent 2.2.1: Performance-based grants and catalytic grants (US$7 million)

EEC will provide performance-based grants and catalytic grants to eligible qualified off-grid solar service providers.

Performance-based grants will be disbursed against key results and milestones, including the installation of quality-verified off-grid solar system, as well as satisfactory service provision, incentivizing service-oriented models, such as pay-as-you-go (PAYG) and energy-as-a-service. Gender responsive mechanism will be considered to address affordability gap especially to address the needs of female headed households with low income.

Catalytic grants will support additional market development activities, such as customer outreach, setting up of service centers, support for productive uses etc. In both cases, the payments will be carried out against verified results and milestones.

2.2.2.2 Subcomponent 2.2.2: Off-grid design and implementation support (US$2 million)

This Component involves the adoption of a d-MRV platform to enhance accuracy, efficiency and transparency through collection of real-time energy-access and consumption data and build up the foundation for participating in the carbon market. Adopted at scale, a d-MRV platform generates reliable, harmonized, and comprehensive data for effective planning, regulation enforcement, and market intelligence. In addition, d-MRV platforms create unprecedented opportunities to access climate financing via aggregation, credible verification protocols, and reduction of transaction costs. Eswatini is well-positioned to adopt a d-MRV platform, having already gained relevant knowledge about digital tools and processes through initial capacity-building activities under the regional ASCENT MPA and its ASCENT COMESA phase.

3 DEFINITION AND MANAGEMENT OF THE TRANSMISSION LINE RIGHT OF WAY (ROW)

3.1 Introduction

The development and operation of transmission lines under the project require access to land for both construction and long-term operation and maintenance. To ensure proper environmental and social management, it is essential to distinguish between the Construction Right of Way (CROW) and the Permanent Right of Way (PROW).

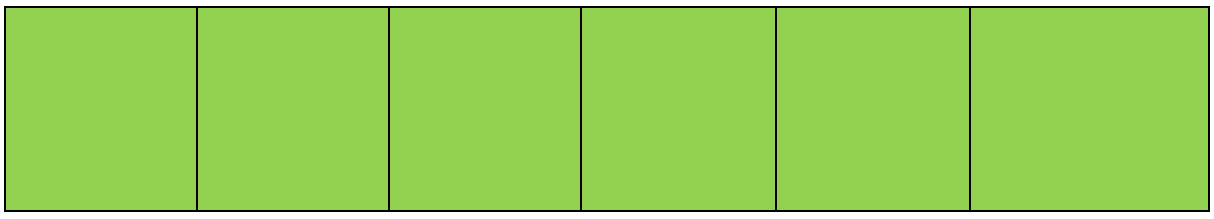
This chapter provides definitions, allowable and restricted activities, and management requirements for each category of ROW. The guidance aligns with the World Bank Environmental and Social Standards (ESS1: Assessment and Management of Environmental and Social Risks and Impacts; ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement), the World Bank Group Environmental, Health and Safety Guidelines (WBG EHSG) and relevant national environmental legislation and safety codes.

3.2 Definition of the Right of Way

The Right of Way (ROW) is the corridor of land required for the construction, operation, and maintenance of transmission infrastructure. It ensures safe electrical clearances, accessibility for maintenance, and environmental and social safeguards.

Two distinct types of ROW are recognized for the ASCENT Project:
- Construction Right of Way (CROW): The temporary corridor required during the construction and installation of the transmission line.
- Permanent Right of Way (PROW): The permanent corridor maintained throughout the operational life of the transmission line for safety clearance and maintenance access.

3.3 Description of Construction and Permanent Right of Way



Construction Right of Way (CROW)	Temporary corridor required during the construction phase of the transmission line.	Typically extends 20–40 m beyond the permanent ROW, depending on voltage level, terrain, and construction methods.	• Erection of towers and poles • Conductor stringing • Operation and movement of construction machinery • Establishment of temporary access roads and work camps • Storage of materials and equipment • Excavation and foundation works	• Construction of permanent structures • Long-term vegetation clearance beyond the defined corridor	• Implement erosion and sediment control measures. • Limit vegetation clearing to the minimum area necessary. • Compensate for temporary land and crop damage. • Restore and revegetate disturbed areas after construction. • Manage dust, noise, and waste in accordance with the ESMP.
Permanent Right of Way (PROW)	Permanent corridor maintained for safety, clearance, and maintenance throughout the operational life of the line.	Typically 30–60 m (varies with transmission voltage and design standards).	• Routine inspection and maintenance • Vegetation control and access tracks • Grazing and cultivation of low-growing	• Construction of permanent buildings • Planting of tall trees • Excavation near towers or poles • Storage of flammable	• Establish servitude or easement agreements with affected landowners. • Maintain vegetation within allowable height limits. • Compensate

			crops • Installation of warning signs and safety notices	or hazardous materials	for permanent land-use restrictions. • Conduct periodic inspections and community awareness campaigns on ROW safety. • Apply environmentally sound vegetation management methods.

3.4 Environmental and Social Management Considerations

- The Construction ROW shall be treated as a temporary impact area, and all disturbed land must be rehabilitated to its pre-construction or agreed condition following completion of works.
- The Permanent ROW constitutes a long-term land-use restriction, and appropriate compensation or servitude agreements shall be established in accordance with ESS5.
- Stakeholder engagement must be continuous to ensure affected persons understand permissible and restricted activities within the ROW.
- The Environmental and Social Management Plan (ESMP) shall include specific mitigation and monitoring measures to address vegetation clearance, soil erosion, waste management, occupational health and safety, and community safety during both construction and operation.
- All ROW activities must comply with applicable national environmental, occupational safety, and electrical clearance regulations.

4 ENVIRONMENTAL AND SOCIAL POLICIES, REGULATIONS, AND LAWS

4.1 Eswatini's Legal Framework

Table 4-1: Eswatini's Legal Framework

Law	Description and Relevance to Project Activities
The Constitution of the Kingdom of Eswatini Act, 2005 (Act No: 001 of 2005)	The Constitution of the Kingdom of Eswatini, 2005 (Act No. 001 of 2005) provides the foundation for environmental and social protection. Section 210 mandates the State to protect and sustainably use natural resources for present and future generations. Sections 216(1) and (3) assign environmental protection responsibilities to all citizens and require the State to establish a comprehensive regulatory framework. On land and property, Section 19 affirms the right to own property and requires fair compensation if land is acquired in the public interest. These provisions are directly relevant to the ASCENT project, which may interact with sensitive environments and require land acquisition.
The Environmental Management Act No 5 of 2002	The Environment Management Act, No. 5 of 2002 is Eswatini's principal environmental framework law. It sets out the guiding principles for environmental protection, establishes the institutional framework, and defines tools for environmental planning, pollution control, waste management, public participation, and enforcement. The Act's purpose (Section 4) is to enhance, protect, and conserve the environment and promote the sustainable use of natural resources. All development projects, including those under the ASCENT program, are required to comply with its provisions.
The Environmental Assessment Regulations, 2022	The Environmental Assessment Regulations, 2022 provide the legal framework for administering Strategic Environmental Assessments (SEAs) and Environmental Impact Assessments (EIAs) in Eswatini. They set out the categories of projects that require assessment, exemptions, and criteria for determining significant environmental or public interest impacts. The regulations also prescribe procedural requirements for public participation, the content of assessment and audit reports, and penalties for non-compliance. Under the ASCENT project, these regulations guide screening, impact assessment, audit requirements, and environmental approval by the Eswatini Environment Authority.
Waste Regulations of 2000	The regulations control the collection, transport, sorting, recovery, treatment, storage and disposal of waste collection and disposal of waste. Waste generation is anticipated during this project and hence the relevance of these Regulations.
Water Pollution Control Regulations of 2010	The regulations control the discharge of effluents exceeding acceptable effluent standards for the preservation of water quality. If any person intentionally or negligently discharges potentially polluting substances into a water body above acceptable standards, that person will be guilty of an offence. Activities during establishment and operation that may cause pollution will be subjected to these regulations. This is particularly pertinent given the potential disposal of waste and hydrocarbon contaminated waste.

Law	Description and Relevance to Project Activities
Water Act of 2003	This Act governs the protection and sustainable use of water resources in Eswatini. Section 34 exempts primary water use from permitting; however, construction-related activities such as dust suppression and compaction under the ASCENT project may require a water use permit. Additionally, in accordance with Section 81, no alteration or diversion of a watercourse may occur without prior approval from the Water Apportionment Board (or relevant River Basin Authority). If any such works are proposed under Sub-component 1b or Component 2, the necessary permissions will be obtained before implementation.
The Flora Protection Act No.10 of 2000	An Act to protect indigenous flora. If any protected flora exists in the project area and is likely to be cut or uprooted, this requires a permit from the Ministry of Agriculture and Co-operatives (MoAC). This Act is relevant to the project as protected plants or trees may occur within the project which could likely to be affected, hence measures should be taken to protect these plants or to obtain a permit where necessary.
The Public Health Act of 1969	Eswatini Public Health concerns, and ways of dealing with them, have been expressed in the Public Health Act 5 of 1969. The Act defines the Authority for prescribing and enforcing preventative and remedial measures for the protection of public health in Eswatini. However, in recent years there has been increasing concern expressed by the environmental health officials, health officers and others that the Act fails to provide the back-up required to control risks to public health, and that it fails to meet the present-day environmental health needs. The Act is relevant since the project activities may lead to public health risks during construction and operation.
The National Trust Commission Act of 1972	The National Trust Commission Act, 1972 provides for the protection and management of cultural heritage, national parks, and monuments in Eswatini. It empowers the National Trust Commission to proclaim protected areas and cultural sites of historical, archaeological, aesthetic, or ecological significance. Section 25 allows the Minister to recommend areas or objects for proclamation as national monuments. This Act is relevant to the ASCENT project, as construction and excavation activities may result in the chance find of cultural or heritage resources, triggering the need for appropriate protection measures.
Human Settlements Authority Act of 1988	The Act established the Human Settlements Authority and its objects as well as functions. It provides policy support to Government and the orderly development of human settlements by allowing for and outlining procedures for the establishment of Human Settlements. It also makes provision for the development of human settlement development plans, the revocation or modification of development plans and finance mechanisms for the supply and maintenance of improved shelter and infrastructure. This Act is applicable as the project will be undertaken in human settlements and must ensure that project designs consider the settlement types in the project area.

Law	Description and Relevance to Project Activities
Urban Government Act of 1969	This Act provides the basis for the establishment of local authorities in Eswatini as a primary legal instrument defining the parameters under which city councils conduct their affairs. The act outlines the duties and powers of Councils; makes provision for meetings of Councils and Committees, Management Committees and staff; designates towns, land, streets and public places; and the administration and audit of Council accounts. The Act is applicable, where the project will be implemented in urban boundaries hence the Council must be engaged when constructing and implementing the project within their jurisdiction.
Factories, Machinery and Construction Works Act of 1972	The Act deals with the regulation of working conditions and the use of machinery at factories and construction sites. Section 19 requires the reporting of accidents in the workplace and therefore any accident during the project is to be formally reported. Section 20 requires that safety devices not interfere with, that employees shall use safety equipment provided and that no persons shall do anything that places their own safety and that of others at risk. The Act is applicable to the project as machinery will be used and there are potential accidents that will require reporting during project implementation and operation.
Plant Control Act of 1981	This Act is concerned with the prevention of plant disease. It controls the import and export of plants. It also controls the registration of nurseries and regulates the sale of plants through control of nurseries. The use of plants for rehabilitation falls under these controls hence the relevance of the Act.
The Forests Preservation Act no 28 of 1910	This Act protects indigenous timber land. The Minister of Agriculture must grant permission for clearing and cultivating any government or Swazi National Land within 30 yards of an area in which indigenous vegetation is growing. Thus, any person who recklessly sets fire to any indigenous or brushwood is deemed to be guilty of an offence. The Act is relevant since the project activities may involve clearing of vegetation during construction and the operation through maintenance of the wayleaves.
Workmen's Compensation Act of 1983	The Act provides for the compensation and medical treatment of workmen who suffer injury or contract work-related diseases in the course of their employment. Relevant to this project is section 25 which requires the employer to be insured against liability for work related injuries.
Occupational Safety and Health Act of 2001	The Occupational Safety and Health Act promotes the safety and health of workers and others who may be affected by work activities. It places duties on employers to ensure safe working conditions, provide personal protective equipment (PPE), training, and supervision, and to prevent exposure of non-workers to workplace hazards (Section 9). Employees are required to follow safety instructions, use protective equipment, and report unsafe conditions (Section 11). The Act also mandates reporting of accidents and dangerous occurrences to the Labour Inspector (Section 28), which is critical during construction under ASCENT.

Law	Description and Relevance to Project Activities
Land Survey Act of 1961	The Act provides for the survey of land and matters incidental thereto. It deals with interpretation including the definition of diagram, general plan, lot, owner, registration and township. It deals with matters relating to the Surveyor-General and Surveyors, surveys and re-surveys, beacons and boundaries. The project must observe this Act when implementing and operating the project in private property to minimize encroachments and damage to property.
Building Operations Regulations of 1969	The regulations control building activities and the safety of buildings. Regulation 54 requires a person carrying out building work to minimize any public nuisance such as noise, dust and unsightliness caused by the work. This is relevant to the project in terms of potential noise and dust.
Workmen's Compensation Regulations of 1983	These regulations control the reporting of workplace accidents and work-related diseases, the provision and payment of medical treatment of injured employees and the compensation of such employees. Hence it is relevant to the project during implementation and operational phase as there could be work-related accidents which will require compensation.
The Employment Act 1980	This Act governs employment conditions in Eswatini, including contracts, termination, protection of women and young persons, leave, and prohibition of forced labour. It is relevant to ensure fair and lawful labor practices during project implementation.
Sexual Offenses and Domestic Violence Act 2018	This Act criminalizes and imposes harsher fines and imprisonment for sexual harassment sexual and gender-based violence nationally and prohibit child marriage provides new legal protections for child victims of commercial sexual exploitation.
The Children's Protection and Welfare Act 6, 2012	This Act states that children below the age of 18 cannot be engaged in any form of hazardous employment.
The Peoples Trafficking and People Smuggling (Prohibition), Act 2009	This Act prohibits smuggling of people for the purposes of exploitation and profiting from exploitation of smuggled people.
The Industrial Relations Act 2002 (as amended)	This Act governs labour relations in Eswatini, including collective bargaining, trade union recognition, and dispute resolution. It establishes key institutions such as the Conciliation, Mediation and Arbitration Commission (CMAC), the Industrial Court, and the Industrial Court of Appeal. The Act upholds workers' rights to freedom of association and protects against unfair dismissal and discrimination, with Section 16 empowering courts to award compensation of up to 24 months for automatically unfair dismissals based on arbitrary grounds. This legal framework is relevant to the ASCENT project in ensuring fair labour practices and effective resolution of workplace grievances.

Law	Description and Relevance to Project Activities
Wages Act, 1964	An employer shall not pay an employee a salary below the minimum wage calculated at a rate not less than that specified in the annual bill regulation wages in the building and construction industry.

4.2 National Environmental and Social Assessment and Permitting

The Eswatini Environment Authority, under the Ministry of Tourism and Environmental Affairs, is the competent authority responsible for regulating and managing environmental assessment in Eswatini. The process is governed by the Environmental Management Act 2002 and the Environmental Assessment Regulation 2022. Section 32. (1) of The Environmental Act 2002 states the *"Subject to the provisions of regulations made under paragraphs (a), (b) or (c) of section 33, no person shall undertake any project that may have an effect on the environment without the written approval of the Authority, or in the case of a review, of the Minister, and except in accordance with any conditions imposed in that approval."*

The EIA process (see summary in figure in Eswatini requires the project proponent to submit a project brief to EEA for categorization (screening) into 3 levels:

a) Category 1 project: EEA considers that the proposed project is unlikely to have any significant adverse environmental impacts. These projects are authorized with terms and conditions to be complied with by the project proponent. Projects that cannot be classified as category 1 or category 2, the proponent shall be required to prepare an Environmental Management Plan (EMP).
b) Category 2 project: EEA considers that the proposed project is likely to have some significant adverse environmental impacts but that the impacts are relatively well known and easy to predict and the measures which can be taken to prevent or mitigate these are well known. These projects require preparation of an Initial Environmental Evaluation and Comprehensive Mitigation Plan (IEE/CMP). The EEA, where the report conforms to reporting requirements, will issue an authorization letter or may order a public review where it considers that it would be of public interest to do so.
c) Category 3 project: EEA considers that the proposed project is likely to have significant adverse environmental impacts and that in depth study is required to determine the scale, extent and significance of the impacts and to identify appropriate mitigation measures. These projects require an Environmental Impact Assessment report and Comprehensive Mitigation Plan (EIA/CMP).

   The proponent shall be required to prepare a scoping report and terms of reference to be approved by the EEA before preparing a full EIA/CMP report. The EEA, where the report conforms to reporting requirements, will issue an authorization letter or may order a public review where it considers that it would be of public interest to do so.

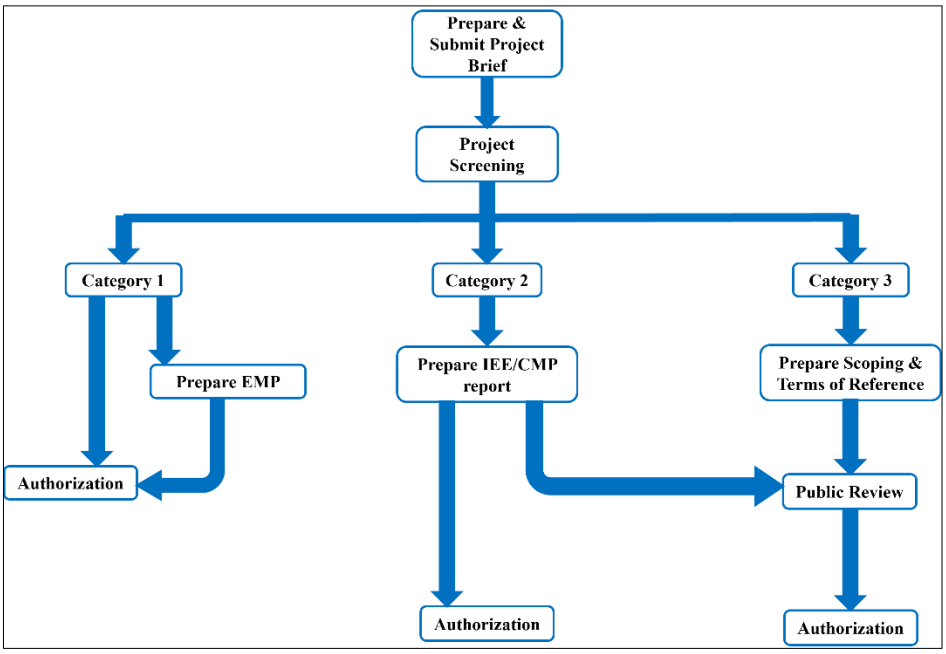


Figure 4-1: Overview of ESIA process in Eswatini

A person undertaking environmental assessment under the EAR 2022 and the EMA should be a registered Environmental Assessment Practitioner (EAP).

The use of the Borrower Framework as stipulated in the ESF, is being proposed with regards to implementation of the requirements set forth in the issuance of the Environmental Compliance certificate and authorization letter and monitoring of compliance by EEA. The project will rely, in part, on this permitting process for managing E&S risks including the Initial Environmental Evaluation and Comprehensive Mitigation Plan, as well as on the existing E&S instruments prepared under the NRAP which will be updated to address any additional impacts and risks under the ASCENT activities. While the act and regulations are generally in line with the objectives of the ESF, some gaps exist as set out in Section 3.3, for these the project will apply the requirements of the ESSs.

4.3 World Bank Standards and Key Gaps with the National Framework

The ASCENT Project is classified as Moderate risk under the World Bank Environmental and Social Framework (ESF). Environmental risks are considered site-specific, predictable, and manageable using standard mitigation measures. Activities will largely take place within existing rights-of-way or disturbed areas, with key risks including air, soil, and water pollution, as well as the generation of hazardous and non-hazardous waste. Off-grid components add minor risks related to solar panel and battery disposal, all of which will be managed through ESMPs and existing PIU capacity.

The social risk rating is also Moderate, due to potential worker and community health and safety risks, temporary access or livelihood disruptions, labour and working condition concerns, and SEA/SH risks. Additional low-probability risks include the use of security personnel and possible impacts on cultural heritage or chance finds. These risks will be managed through the LMP, SEP, site-specific RAPs, and a chance finds procedure, with oversight by the experienced PIU team from the NRAP project.

The World Bank's environmental and social standards applicable to project activities are summarized in Table 3-2.

Table 4-2: Summary of World Bank ESS Applicable to Project

E&S Standard	Relevance
1. Assessment and Management of Environmental and Social Risks and Impacts	ESS1 is relevant for the project because project activities are expected to pose moderate environmental and social risks such as soil erosion, loss of biodiversity, pollution, public health risks, grievances, protest action, SH/SEA, project delays etc.
2. Labor and Working Conditions	ESS2 is relevant for the project because there are certain labor risks for project workers. Labor-related risks include (i) security risks to project workers, (ii) traffic and road safety issues, (iii) inadequate terms and conditions of employment, and (iv) occupational health and safety risks.
3. Resource Efficiency and Pollution Prevention and Management	ESS3 is relevant to the project due to the expected use of construction materials, fuel, and chemicals, as well as the potential generation of waste, dust, emissions, and hazardous substances during construction and installation activities.
4. Community Health and Safety	ESS4 is relevant to the project as construction activities, labor influx, transport of materials, and the installation of electrical infrastructure may pose risks to the health and safety of nearby communities.
5. Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	ESS5 is relevant to the project as the installation of electrical infrastructure may require access to private or communal land, potentially resulting in temporary or permanent land acquisition, loss of assets, or restricted land use.
6. Biodiversity Conservation and Sustainable Management of Living Natural Resources	ESS6 is relevant to the project as some project activities may involve vegetation clearing or be located near sensitive ecosystems, potentially affecting natural habitats

E&S Standard	Relevance
8. Cultural Heritage	ESS8 is relevant to the project as construction activities may uncover or disturb physical or intangible cultural heritage, especially during excavation or vegetation clearance.
10. Stakeholder Engagement and Information Disclosure	ESS10 is relevant to the project as it requires ongoing engagement with affected communities and stakeholders to ensure transparency, address concerns, and support grievance resolution throughout the project lifecycle.

4.4 Comparison table of ESF objectives and national requirements

Table 3-3 below provides a comparative analysis between the national legal requirements and the WB ESS requirements.

Table 4-3: Comparative Analysis of Applicable ESSs and Eswatini's National Regulations.

ESF Objectives	National Laws and Requirements	Gaps	Recommended Action
ESS 1: Assessment and Management of Environmental and Social Risks and Impacts			
To identify, evaluate and manage the environment and social risks and impacts of the project in a manner consistent with the ESSs. ESS1 sets out the developer's and lender's responsibilities (in this case EEC) for assessing, managing, and monitoring environmental and social risks and impacts associated with each stage of a project that is supported by the World Bank through Investment Project Financing, to achieve environmental and social outcomes consistent with the Environmental and Social Standards (ESSs). This responsibility extends to managing and monitoring the activities on any sub-contractors during the design, implementation and operational phases.	**Environmental Management Act No 5 of 2002** provides for subjecting proposed projects to Environmental and Social Impact Assessment (ESIA) studies as a mechanism for identifying, evaluating and managing environmental and social impacts of projects. **The Environmental Assessment Regulation 2022** and the Environmental Management Act, 2002, underline processes that must be taken for any proposed project to predict and evaluate likely environmental impacts under studies such as the ESIA. As per the regulations, an environmental impact is defined as "any positive or negative impact, on the natural and/or environment, on any form of life, on the social, economic and/or cultural conditions that influence human life, or on any inter-relationship between these elements or factors, which is, will be, or may be, directly or indirectly caused by an existing or proposed project, policy, plan or programme" **Section 32 of the Environmental Management Act, 2002** emphasizes that no person shall undertake any project that may have a detrimental effect on the environment without the written approval of the EEA.	Although the national legislation does require social, economic and cultural impacts to be considered as part of an impact assessment, ESS 1 has a greater focus on social risks in comparison to the national regulations. Therefore, there is a gap between ESS1 and the various national laws.	The project will partially rely on the application of national requirements for obtaining environmental clearance from the EEA prior to commencing with the construction activities. Where relevant the preparation of instruments required by the World Bank will also be necessary, in addition to National requirements
To adopt a mitigation hierarchy approach to: i) Anticipate and avoid risks and impacts; ii) Where avoidance is not possible, minimize or reduce risks and impacts to acceptable levels; iii) Once risks and impacts have been minimized or reduced, mitigate; and iv) Where Significant residual impacts remain, compensate for or offset them, where technically and financially feasible.	**Environmental Management Act No 5 of 2002** provides for subjecting proposed projects to Environmental and Social Impact Assessment (ESIA) studies as a mechanism for identifying, evaluating and managing environmental and social impacts of projects. **The Environmental Assessment Regulations 2022** underline processes that must be taken for any proposed project in order to predict and evaluate likely environmental impacts under studies such as the ESIA. These include scoping, screening, impact identification using hierarchical process, mitigation etc. **The EAR 2022** provide for categorization of projects based on risk factors i.e. category 1, 2 and 3. Section 32 of the Environmental Management Act, 2002 emphasizes that no person shall undertake any project that may have a detrimental effect on the environment without the written approval of the EEA. The legal framework and regulations do not provide for offset mechanism as a compensation. National laws and regulations do not address the risk that adverse impacts will fall on disadvantaged on vulnerable people.	No significant gaps between ESS 1 and the various national laws	Apply national laws
To adopt differentiated measures so that adverse impacts do not fall disproportionately on the disadvantaged or vulnerable, and they are not	National laws and regulations do not address the risk that adverse impacts will fall on disadvantaged on vulnerable people.		Apply ESS1 with respect to this requirement which is not a requirement in

ESF Objectives	National Laws and Requirements	Gaps	Recommended Action
disadvantaged in sharing development benefits and opportunities resulting from the project.			Eswatini's statutory regulations
To utilize national environmental and social institutions, systems, laws, regulations and procedures in the assessment, development and implementation of projects, whenever appropriate.	Eswatini Government has in place relevant environmental and social institutions, regulations, laws, systems and procedures that support sustainable development through ensuring assessment, development and implementation of projects in a sustainable manner. These include: - **Institutions:** - Eswatini Environmental Authority **Laws, Regulations and Procedures:** - The Environmental Assessment Regulations 2022 - Environmental Management Act No 5 of 2002 - Waste Regulations of 2000 - Water Pollution Control Regulations of 2010 - The Air Pollution Control Regulations, 2010, which provide for the control of air emissions during project implementation.	The Project will rely on national laws and regulations supplemented by measures defined in the ESMF and ESMP	Apply national laws and, where relevant, the requirements of the World Bank ESS.
To promote improved environmental and social performance in ways which recognize and enhance borrower capacity.	National laws and regulations do not address this adequately.	The Project is an opportunity for EEC to strengthen its environmental and social management systems.	Apply ESS1 with respect to this requirement.
ESS 2: Labor and Working Conditions			
1. ESS2 recognizes the importance of employment creation and income generation in the pursuit of poverty reduction and inclusive economic growth. Borrowers can promote sound worker-management relationships and enhance the development benefits of a project by treating workers in the project fairly and providing safe and healthy working conditions. ESS 2 Objectives are: • To promote safety and health at work. • To promote the fair treatment, non-discrimination and equal opportunity of project workers. • To protect project workers, including vulnerable workers such as women, persons with disabilities, children (of working age, in accordance with this ESS) and migrant workers, contracted	**The Occupational Safety and Health Act 9, 2001** This Act provide for the safety and health of persons at work and at the workplace and for the protection of persons other than persons at the workplace against hazards to safety and health arising out of or in connection with the activities of persons in the workplace and to provide for other matters incidental thereto. **S.9** – entrusts the employer to ensure the safety and health of all its employees, and also to; Mitigate risks of exposure to danger of its workforce; Provide personal protective clothing or equipment to employees exposed to wet, dusty, noisy or any conditions that might expose the employees to harsh or dangerous conditions; Train its workers to perform their work in order to avoid exposure to danger or injury; and Inform employees of any known hazards or disease associated with the work, and ensure that health and safety representatives or committees are appointed. **The Factories, Machinery and Construction Works Act 17, 1972** This legislation provides for the registration of factories and the regulations of working conditions and the use of machinery at factories, construction works and other premises and for matters incidental thereto. The Act mandates the office of the	The national legislation complies with much of the ESS2 requirements except for the following: • There is no obligation to appoint a professional and qualified H&S officer and how this would apply to different types of enterprises. • There is also no requirement to consult with workers regarding the development and review of H&S policy • No clarify to the right of workers to enquire as to H&S risks and preventive measures and to be re-assigned to non-hazardous work. • No requirement for employers to consult employees on risks.	Apply ESS2 including the OHS template, the World Bank Group EHS Guidelines and national laws. For cases involving permanent disabilities or fatalities, apply national laws. And the World Bank guidelines for accident reporting.

ESF Objectives	National Laws and Requirements	Gaps	Recommended Action
workers, community workers and primary supply workers, as appropriate. • To prevent the use of all forms of forced labor and child labor. • To support the principles of freedom of association and collective bargaining of project workers in a manner consistent with national law. • To provide project workers with accessible means to raise workplace concerns.	Labor Commissioner to monitor and inspect any working environment or structure to determine its suitability. The office of the Labor Commissioner is also required to investigate incident or accident involving any person injured in connection with the activities of the employer. **The Workman's Compensation Act 7, 1983** It provides for the compensation and medical treatment of workmen who suffer injury or contract diseases in the course of their employment. The scope of its application extends to not only an injury or accident that occurs within the workplace but also while the employee is travelling by reasonable means and within any reasonable route between the workplace and his place of residence. In terms of the Act, Workman is any person who has entered into the works under the contract of service or of apprenticeship or of traineeship whether the contract is express or implied, is oral or in writing whether the remuneration is calculated by time or work done.	• No right for OHS representatives to be present at interviews or to receive professional assistance from OHS experts or to issue remedial notices or direct that dangerous work cease. • No right for worker representatives from outside the enterprise to address OHS issues. • No provisions to ensure cooperation in cases where there is more than one employer (i.e. contractors). • There are also data on OHS issues related to working at height, with fires,	
	The Employment Act 5/1980 **S29** – prohibits employers from discriminating against any person on grounds of race, colour, religion, marital status, sex, national origin, tribal or clan extraction, political affiliation or social status. **S30** – makes it an offence to discriminate against any person as envisaged in **S29**. Such employer if found guilty shall be liable on conviction to a fine not exceeding E3,000.00 or imprisonment not exceeding 1 year or both. **S96** – mandates employers to accord female employees the same treatment as their male counterparts in the workplace and pay them 'equal pay for equal work'.	Eswatini has not yet completed the drafting of the revised Employment Bill (which has been under development for a decade) and making sure that it incorporates the following international best practice principals: • Equal renumeration for men and women for work for equal value, but also involves similar or substantially similar qualifications, skills, effort, responsibilities and conditions of work.	Apply ESS2 and national laws.

ESF Objectives	National Laws and Requirements	Gaps	Recommended Action
		• Removing additional grounds of discrimination, such as gender, family responsibilities, ethnic origin, pregnancy or intended pregnancy, sexual orientation, political opinion, social origin, health status, real or perceived HIV/AIDS status, age or disability, conscience and belief.	
To protect project workers, including Vulnerable workers such as women, persons with disabilities, children (of working age in accordance with this ESS) and migrant workers, contracted workers, community workers and primary supply workers as appropriate.	**The Employment Act 5, 1980 (Part XIV) – Forced Labor** **S144** – prohibits all works or service which is extracted from any person under the threat of any penalty and for which the said person has not offered himself voluntarily. **S147** – states that, if any person acting in an official capacity coerces any person under his charge, that person shall be held personally liable and shall be liable to a fine not exceeding E3,000.00, or imprisonment not exceeding one year or both. The Country ratified both the ILO Minimum of Age Convention (C138) and the ILO Worst Forms of Child Labor Convention (C182) in 2002. It also signed the African Charter on the Rights and Welfare of the Child in 1992 but has not yet ratified it. **The Employment Act 1980** **S97** – Prohibits the employment of children below the age of 15. **The Children's Protection and welfare Act 6, 2012** **S234 –** Minimum age of engagement for children is 15 **S236 –** children below the age of 18 cannot be engaged in any form of hazardous employment **S248 –** any person who employs underage children is liable on conviction to a minimum fine of E100,000.00 or 5 years' imprisonment or both for a first offender. For a second offender, it is imprisonment of not less than 10 years.	The traditional practice of *"kuhlehla"* - a form of forced community labor – continues in eSwatini. While a High Court Ruling (Case No. 2823/2000) declared the Swazi administration Order No. 6 of 1998 which allows such practices as null and void, these practices continue. The ILO commission has indicated a need to formally repeal the above-mentioned legislation and for new regulations to be introduced to regulate the *"Kuhlehla"* practices and ensure that this is limited to voluntary participation and provides regulations on the types and nature of this work, and for community members to be consulted about the need for such services. Regarding child labor, the use of forced child labor in rural families and communities for domestic work and livestock herding continues. There has been some progress in strengthening governance capacity and in launching the new Trafficking in Persons	Apply ESS2 and national laws
To prevent the use of all forms of forced labor and child labor.	The country has ratified the numerous ILO Conventions aimed at ensuring that member states do protect the notion of collective bargaining. These Conventions include; ILO Convention 87 on Freedom of Association and Protection of the Right to Organize and the ILO Convention 98 on the Right to Organize and Collective Bargaining. Section 32 (2) of **The Constitution of Eswatini, 2005** on the Rights of Workers, guarantees all workers of their right to freely form, join or not join a trade union for the promotion and protection of the economic interest of that worker; and collective bargaining and representation. The Industrial Relations Act 2000 (as amended) was enacted to give effect to the collective bargaining, amongst other purposes. Section 4		Apply ESS2 and national laws

ESF Objectives	National Laws and Requirements	Gaps	Recommended Action
	(c) to (e) of the Act allows for the collective negotiation of terms and conditions of employment. Part 4 of **The Industrial Relations Act 2000 (as amended)** deals with the registration and/or formation of Employee, Staff and Employer Organizations, Federations and International Organizations. In terms of S.26 (3) of the Act a minimum of six employees can form a trade union by obtaining a Certificate of Registration through the office of the Labor Commissioner (S.27). Once registered, a trade union can recruit any employees who falls within its bargaining unit with that employer. S.42 (9) states that once the union has recruited more than fifty percent of the employees in respect of which it seeks recognition, the union can then apply for recognition with the employer. The employer is obliged to recognize the trade union if it meets the required threshold. If, however the union membership is below the threshold the employer is not obliged to recognize the union but can exercise its discretion. Once a union is recognized, it has the right to bargain or negotiate for and on behalf of its members and also to represent them at the workplace.	National Strategic Framework and Action Plan in 2019 and has begun the process of prosecuting offenders. However, the eSwatini compulsory education for children does not meet international standards and the minimum age protections do not extend to children engaged in domestic work and agriculture.	
To support the principles of freedom of association and collective bargaining of project workers in a manner consistent with national law.	The Industrial Relations Act 2000 (as amended) provides for the collective negotiation of terms and conditions of employment in the workplace (i.e. negotiations between employers and trade unions and the dispute resolution mechanism). There are three specialized forums for dealing specifically with labor issues in Eswatini, the Conciliation Mediation and Arbitration Commission (CMAC), The Industrial Court and the Industrial Court of Appeal. In implementing an effective dispute management system consideration must be given to the disputed resulting from the following: 1. Disciplinary action 2. Individual grievances 3. Collective grievances 4. Negotiation of collective grievances **<u>1 Disciplinary Procedure:</u> The Code of Good Practice: Resolution of Disputes at the Workplace** which is in terms of **S109** of **The Industrial Relations Act 2000(as amended)** at Clause 4.2 requires employers to establish a fair and effective disciplinary procedure in the workplace, which should be in line with Clause 11 (Fair Procedure). The procedure is as follows: a. Investigate to determine whether there are grounds for a hearing to be held.	The trade unions in eSwatini are seen as being a key political opposition to the government and have historically been forcibly repressed and obstructed by government. The early labor legislation made it hard for workers to legally strike. The current eSwatini legislation that governs freedom association and collective bargaining is the Industrial Relations Act 2000 (as amended) and this has made provision for workers freedom of association and collective bargaining. It has also established structures like the Conciliation, Mediation, and Arbitration Commission (CMAC) to resolve disputes. The CMAC is considered a 'worker biased' organisation that intervenes in labor cases.	Apply ESS2 and national laws.

ESF Objectives	National Laws and Requirements	Gaps	Recommended Action
To provide project workers with accessible means to raise workplace concerns.	b. If a hearing is to be held, the employer is to notify the employee of the allegations using a form and language that the employee can understand. The employee is to be given reasonable time to prepare for the hearing and to be represented by a fellow employee or a union representative. The employee must be given an opportunity to respond to the allegations, question the witnesses of the employer and to lead witnesses. If an employee fails to attend the hearing the employer may proceed in with the hearing in the absence of the employee; c. The hearing must be held and concluded within a reasonable time and is to be chaired by an impartial representative; d. A dismissed employee must be given the reasons for dismissal and the right to refer the dispute concerning the fairness of the dismissal to the Conciliation, Mediation and Arbitration Commission (CMAC). **2. <u>Individual Grievance Procedure</u>** **Clause 4.3** requires every employer to have a Formal Grievance Procedure which should be known and explained to the employee. The Code recommends that such procedure should at least: a. Specify to whom the employee should lodge the grievance; b. Refer to time frames to allow the grievance to be dealt with expeditiously c. Allow the person to refer the grievance to a more senior level within the organization, if it is not resolved at the lowest level. d. If a grievance is not resolved the employee has the right to lode a dispute with CMAC. **3. <u>Collective Grievances and Disputes resulting from the negotiations of Collective agreements</u>** Clause 4.4 and 4.5 of the grievances as raised by the employees. This procedure is usually contained in the Recognition Agreement the parties sign from the onset. What is common to these disputes is that in the event the parties fail to resolve the dispute, either can lodge a dispute with CMAC and subsequently the Industrial Court.	No significant gaps between ESS 2 requirement and the various national laws	Apply ESS2 and national laws.
ESS 3: Resource Efficiency and Pollution Prevention and Management			
ESS 3 sets out the requirements to address resource efficiency and pollution prevention and management throughout the project life cycle consistent with GIIP. Its objectives include: To promote the sustainable use of resources, including energy, water and raw materials.	The **Constitution of the Kingdom of Eswatini Act, 2005 (Act No: 001 of 2005)** obliges the State to in the interest of the present and future generations, to protect and make rational use of its land, mineral and water resources as well as its fauna and flora, and shall take appropriate measures to conserve and improve the environment. In terms of section 216(1) every person has the responsibility to promote the protection of the environment and section 216(3) obliges the State to ensure a holistic and comprehensive approach to environmental preservation and shall put in place an appropriate environmental regulatory framework.	There are significant gaps between ESS 3 requirements and the various national laws	Apply ESS3 and national laws

ESF Objectives	National Laws and Requirements	Gaps	Recommended Action
To avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities. To avoid or minimize project-related emissions of short and long-lived climate pollutants. To avoid or minimize generation of hazardous and non-hazardous waste. To minimize and manage the risks and impacts associated with pesticide use.	**The Environmental Management Act, 2002,** provides and promotes the enhancement, protection and conservation of the environment, as well as sustainable management of natural resources. **The Flora Protection Act of 1958** provide for the sustainable management and utilization of floral resources. **The Forests Preservation Act no 28 of 1910** provide for the sustainable management and utilization of forest resources. **The Water Act, 2003,** provides for the sustainable use and management of water resources in the country as well as for the control of pollution.		
To promote the sustainable use of resources, including energy, water and raw materials.	The Environmental Audit, Assessment and Review Regulations, 2000 requires ESIA studies to be conducted as a mechanism for identification of adverse impacts on projects on the human health and environment and requires the determination of mitigation measures (avoid, minimize, mitigate, compensate) when such impacts are identified. **Waste Regulations of 2000** provide the regulatory measures for waste management in order to minimize pollution from project activities. **Water Pollution Control Regulations of 2001** provide for measures geared towards minimising pollution of water by project activities by establishing standards. **The Air Pollution Control Regulations, 2001,** provide for the control of air emissions during project implementation.	No significant gaps between ESS 3 requirement and the various national laws	Apply national laws
To avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities.	Eswatini does not yet have comprehensive legislation addressing **chemicals management**. The development of such legislation has been recommended along with a National Chemicals Profile for the country. Eswatini is however a party to several conventions that are aimed at achieving sound management of chemicals including: 1) The Stockholm Convention on Persistent Organic Pollutants; 2) The Rotterdam Convention of Prior Informed Consent Procedure for Certain Hazardous Pesticides and other Chemicals in International Trade; and 3) The Basel Convention on Trans-boundary Movement of Hazardous Waste. **Ozone Depleting Substance Regulations, 2003,** provide for the elimination and avoidance of products that deplete the ozone layer. Significant progress has also been achieved in reducing these emissions particularly from large industrial polluters. Eswatini does not yet have regulations regarding Green House Gases but developed its **Climate Change** Policy in 2016. It still needs to develop legislation and a low carbon/green growth strategy. Capacity to govern, monitor and report on progress with these policies/laws also still needs to be developed.	Significant gaps between ESS 3 requirement and the various national laws pertaining to emission prevention from climate related pollutants.	Apply ESS 3 requirements and the World Bank Group EHS Guidelines.

ESF Objectives	National Laws and Requirements	Gaps	Recommended Action
To avoid or minimize project-related emissions of short and long-lived climate pollutants.	**The Waste Regulations, 2000,** under the Environmental Management Act, provide for the management of solid and liquid waste disposal. They emphasize on the appropriate handling, transportation, treatment and final disposal of waste. **The Building Act, 1969,** underlines the prohibition of illegal structures and requires the removal and disposal of all waste materials in an appropriate manner during project implementation.	No significant gaps between ESS 3 requirement and the various national laws.	Apply national laws
To avoid or minimize generation of hazardous and non- hazardous waste.	Eswatini has no specific regulations governing use and management of pesticide wastes. However, the **Waste Regulations, 2000** include hazardous wastes.	Significant gaps between ESS 3 requirement and the various national laws.	Apply ESS 3 requirements. the World Bank Group EHS Guidelines and national laws.
To minimize and manage the risks and impacts associated with pesticide use.	Eswatini has no specific regulations governing use and management of pesticide wastes. However, the **Waste Regulations,** 2000 include hazardous wastes.	Significant gaps between ESS 3 requirement and the various national laws.	Apply ESS 3 requirements.
ESS 4: Community Health and Safety			
	The Public Health Act, 1969, provides for the establishment of processes to ensure public health at all phases of a project. It also provides for steps to take should there be any incident from the project affecting the public and lays out responsibilities for actions to be taken. **The Occupational Health and Safety Act, 2001**, provides for the safety and health of both employees and the public, especially during the construction phase of proposed projects, and specifies processes to be undertaken to ensure that safe and health practices are adhered to and implemented at work. National laws and regulations do not have specific provisions.	There are significant gaps in requirements for effective communication between project construction teams and project-affected communities	Apply ESS4, ESS10, the World Bank Group EHS Guidelines and national laws
To anticipate and avoid adverse impacts on the health and safety of project-affected communities during the project lifecycle from both routine and non-routine circumstances.	**The Public Health Act, 1969,** provides for the establishment of processes to ensure public health at all phases of a project. It also provides for steps to take should there be any incident from the project affecting the public and lays out responsibilities for actions to be taken. **The Road Traffic Act, 2007,** provides for the compliance of all road users and for those organizations such as EEC conducting works on and/or along public roads. **The Occupational Health and Safety Act, 2001**, provides for the safety and health of both employees and the public, especially during the construction phase of proposed projects, and specifies processes to be undertaken to ensure that safe and health practices are adhered to and implemented at work. National laws and regulations do not have specific provisions. **The Water Act, 2003,** provides for the sustainable use and management of water resources in the country as well as for the control of pollution.	No significant gaps between ESS 4 requirement and the various national laws	Apply ESS4, ESS10, the World Bank Group EHS Guidelines and national laws.

ESF Objectives	National Laws and Requirements	Gaps	Recommended Action
To promote quality and safety, and considerations relating to climate change, in the design and construction of infrastructure, including dams.	**The Waste Regulations, 2000,** under the Environmental Management Act, provide for the management of solid and liquid waste disposal. They emphasize on the appropriate handling, transportation, treatment and final disposal of waste. **The Public Health Act, 1969,** provides for the establishment of processes to ensure public health at all phases of a project. It also provides for steps to take should there be any incident from the project affecting the public and lays out responsibilities for actions to be taken. Eswatini does not have specific legislation dealing with regulation of the private security industry. It nevertheless has a regulation of wages for security services officers - the Regulation of Wages (Security Services Industry) Order, 2011 (Order), The Environmental Audit, Assessment and Review Regulations, 2000 requires ESIA studies to be conducted as a mechanism for identification of adverse impacts on projects on the human health and environment and requires the determination of mitigation measures (avoid, minimize, mitigate, compensate) when such impacts are identified. **Waste Regulations of 2000**: provide the regulatory measures for waste management to minimize pollution from project activities. **Water Pollution Control Regulations of 2001**: provide for measures geared towards minimising pollution of water by project activities by establishing standards. **The Air Pollution Control Regulations, 2001:** provide for the control of air emissions during project implementation. . **Ozone Depleting Substance Regulations, 2003:** provide for the elimination and avoidance of products that deplete the ozone layer. Significant progress has also been achieved in reducing these emissions particularly from large industrial polluters. Eswatini does not yet have regulations regarding Green House Gases but developed its Climate Change Policy in 2016. It still needs to develop legislation and a low carbon/green growth strategy. Capacity to govern, monitor and report on progress with these policies/laws also still needs to be developed.	No Significant gaps between ESS 4 requirement and the various national laws	Apply National laws
To avoid or minimize community Exposure to project-related traffic and road safety risks, diseases and hazardous materials.	The provisions of **the Road Traffic Act, 2007** which govern road crimes and traffic crimes **Waste Regulations 2000** provide the regulatory measures for waste management to minimize pollution from project activities. **The Public Health Act, 1969,** provides for the establishment of processes to ensure public health at all phases of a project. It also provides for steps to take should there be any incident from the project affecting the public and lays out responsibilities for actions to be taken and for development of regulations for control of communicable diseases i.e. cholera and Covid 19. Regulation.	No significant Gaps between ESS 4 requirement and the various national laws.	Apply ESS4, ESS10, the World Bank Group EHS Guidelines and national laws

ESF Objectives	National Laws and Requirements	Gaps	Recommended Action
To have in place effective measures to address emergency events.	Eswatini does not have laws or regulations that specifically address emergency events or the prevention of the spread of diseases in work related contexts Eswatini has the national **Disaster Management Act of 2006 (Act No. 1 2006).** This act provides for the integration and coordination of disaster management in Swaziland, and for the establishment, structure, organization, powers, functioning and responsibilities of the National Disaster Management Council, National Disaster Management Agency, National Emergency Committee, Regional Disaster Management Committee, and Disaster Management Fund. **The Occupational Health and Safety Act, 2001**, provides for the safety and health of both employees and the public, especially during the construction phase of proposed projects, and specifies processes to be undertaken to ensure that safety and health practices are adhered to and implemented at work. National laws and regulations do not have specific provisions.	No significant Gaps between ESS 4 requirement and the various national laws.	Apply national Laws.
To ensure that the safeguarding of personnel and property is carried out in a manner that avoids or minimizes risks to the project-affected communities.	**The Environmental Assessment Regulations, 2022,** issued under the Eswatini Environmental Authority Act, 1992, and the Environmental Management Act, 2002, underline processes that must be taken for any proposed project to predict and evaluate likely environmental impacts under studies such as the ESIA. The Public Health Act, 1969, provides for the establishment of processes to ensure public health at all phases of a project. It also provides for steps to take should there be any incident from the project affecting the public and lays out responsibilities for actions to be taken. This legislation does not provide any provisions for the prevention of the spread of communicable diseases in workplaces or neighbouring communities.	No Significant gaps between ESS 4 requirement and the various national laws.	Apply national laws.
ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement			
Experience and research indicate that physical and economic displacement, if unmitigated, may give rise to severe economic, social and environmental risks. Where involuntary resettlement is unavoidable, it will be minimized and appropriate measures to mitigate adverse impacts on displaced persons (and on host communities receiving displaced persons) will be carefully planned and implemented.	Section 211(3) of the Constitution notes that "a person shall not be deprived of the land without the due process of the law and where a person is deprived, that person shall be entitled to prompt and adequate compensation. Section 14 (1)(d) of the Constitution guarantees the right of individuals to protection of their property rights. In as much as the constitution does not specifically classify the different categories of eligibility of a person to be deprived of land without due process as required by ESS5 classification. Section 20(1) and (2) provides thus: S.20(1) – all persons are equal before and under the law in all spheres of political, social, economic and cultural life and in every respect and shall enjoy equal protection of the law. S20(2) further states that for the avoidance of any doubt, a person shall not be discriminated against on grounds of gender, or social or economic standing age or disability.	All persons are protected by the law regardless of their social or economic standing, age or disability so long as they occupy land earmarked for the proposed project. However, the national compensation processes and rates may not comply with the ESS5 requirements. This is particularly the case for communal natural resources such as grazing lands, wetlands and forests that often play an important role in rural livelihoods.	ESS 5 and the National Laws must be applied.

ESF Objectives	National Laws and Requirements	Gaps	Recommended Action
ESS5: Paragraph 10: Affected persons may be classified as: a) persons who have formal legal rights to land or assets b) persons who have no formal legal rights to land or assets but have a claim to land or assets that is recognised or recognisable. c) Who have no recognizable legal right or claim to the land or assets they occupy or use.	In Eswatini law traditional land customs and rights are given equivalent weight to formal written legislation. The definition of "real property" right as defined in the Acquisition of Property Act (1961) is stated as "any real right to immovable property in Swaziland other than a mortgage bond over immovable property, and includes any lease of immovable property, any rights to the use of public water whether derived from the common low or from statue, any servitude or the creation of any servitude, and any land granted, or ceded to any corporation, company or person". This appears to cover all privately owned or leased property and presumably also informal land rights granted to persons under customary tenure systems. However, this definition does not specifically or clearly include those who have no recognisable legal right to land or assets they occupy or use.	The failure in the Land Acquisition Act to clearly acknowledge and confirm the rights of people who have no recognisable legal right to land and assets does not comply with the ESS5 requirements.	Apply ESS5 and the national law
ESS Paragraph 12: Offer affected persons compensation at replacement cost, and other assistance as may be necessary to help them improve or at least restore their standards of living or livelihoods.	S.15 of the Acquisition Act identifies provides criteria for determining compensation namely: a) market value of the property. b) damages sustained by the person interested in severing of any land, c) damages sustained by reason of the acquisition injuriously affecting any other property of the person; d) any reasonable expenses incidental to a change of residence or business as a consequence of the acquisition. S.9 & 10 of the same act articulates the procedure for settlement of disputes for compensation by the Board of Assessment as appointed in terms of S.10. SNL is communal land held in trust by the King. In principle, SNL dwellers have the right to be given replacement land by their Chief for any land taken. Any improvements are compensated in terms of the Acquisition of Act Property. The MHUD Resettlement policy, while accommodating the need to compensate and restore the standards of living and livelihoods of affected parties, does not extend to improving people's living conditions and livelihoods.	The compensation provisions in Section 15 of the Acquisition of Property Act, particularly Section 15(e) is more relevant to private property in the case of market value (as there is no reliable market value for assets in SNL areas which have no formal market). Regarding compensation for other costs, these are vague and do not clearly indicate that persons must be compensated in a way that leaves them the same or better off than they were before they were resettled or displaced. It also does not encompass the full range of expenses such as the replacement cost as outlined in ESS5 in determining compensation.	Apply ESS5 and the national law
ESS Paragraph 25: Requires land of equivalent productive potential. Cash compensation payments should be used as a last resort.	MHUD Resettlement Policy and Guidelines **should be applied** in such cases. This requires that displaced persons shall have their previous standard of living restored and shall be no worse off.	The MHUD Resettlement policy was drafted to align with ESS5. However, the MHUD policy was developed for urban communities and does not adequately make provision for compensation of communal natural resource uses and livelihoods.	Apply ESS5 and MHUD resettlement policy

ESF Objectives	National Laws and Requirements	Gaps	Recommended Action
ESS Paragraph 14: Where livelihoods of displaced persons are land-based, or where land is collectively owned, the Borrower will offer the displaced persons an option for replacement land in accordance with paragraph 35(a), unless it can be demonstrated to the Bank's satisfaction that equivalent replacement land is unavailable. As the nature and objectives of the project may allow, the Borrower will also provide opportunities to displaced communities and persons to derive appropriate development benefits from the project. In the case of affected persons under paragraph 10(c), resettlement assistance.	The Acquisition of Property Act is silent on the provision of replacement land and does not clearly set out the procedures on customary tenure land (SNL). In principle, under customary practices landholders have the right to be given replacement land by their Chief for any land taken. Compensation for any improvements is compensated in terms of the Acquisition of Act Property.	In theory there is no gap as land rights holders on customary tenure land have a right to the full range options including land for land, partial land and cash or full cash compensation.	Apply ESS5 and National Legislation.
GN 12.1: The calculation of replacement costs takes into account the following: (a) Agricultural (including fallow) land or pastureland: Land of equal productive use or potential, located in the vicinity of the affected land or the new housing site, plus the cost of preparation to levels similar to or better than those of the affected land, and transaction costs such as registration and transfer taxes or customary fees.	While the Acquisition of Property Act applies to all PAPs affected by the proposed project with regards to the procedure for acquiring land and providing compensation for land and assets, it is silent on the issue of allocation of land of equal production use or potential. It only speaks to compensation in terms of market and monetary value. Acquisition of Property Act Section 15(1) a) the market value of the property at the date of the service of notice of acquisition under section 5 or the date of publication of the notice under section 8(4), whichever date is the earlier; b) any increase in the value of any other property of a person interested likely to accrue from the use to which the property acquired will be put; c) any damage sustained by a person interests, by reason of the severing of any land from any other land of such person; d) any damage sustained by the person interested, by reason of the acquisition injuriously affecting any other property of such person; e) any reasonable expense incidental to a change of residence or place of business of a person interested which is necessary in consequence of the acquisition. Section 22(2) notwithstanding anything in other law, no transfer stamp duty shall be payable in respect of any conveyance of title consequent upon acquisition of property in terms of this Act.	Provision of monetary compensation is mentioned but there is no explicit mention of provision of stamp duty and land of equal productive use or potential located in the vicinity of the affected land or the new housing site, plus the cost of preparation to levels like or better than those of the affected land.	Apply ESS5 and National Legislation.
GN 12.1: The calculation of replacement costs takes into account the following: (a) Agricultural (including fallow) land or pastureland: Land of equal productive use or potential, located in the vicinity of the affected land or the new housing site, plus the cost of preparation to levels similar to or better	While the Acquisition of Property Act applies to all PAPs affected by the proposed project with regards to the procedure for acquiring land and providing compensation for land and assets, it is silent on the issue of allocation of land of equal production use or potential. It only speaks to compensation in terms of market and monetary value. Acquisition of Property Act Section 15(1) a) the market value of the property at the date of the service of notice of acquisition under section 5 or the date of publication of the notice under section 8(4), whichever date is the earlier; b) any increase in the	Provision of monetary compensation is mentioned but there is no explicit mention of provision of stamp duty and land of equal productive use or potential located in the vicinity of the affected land or the new housing site, plus the cost of	Apply ESS5 and National Legislation.

ESF Objectives	National Laws and Requirements	Gaps	Recommended Action
than those of the affected land, and transaction costs such as registration and transfer taxes or customary fees.	value of any other property of a person interested likely to accrue from the use to which the property acquired will be put; c) any damage sustained by a person interests, by reason of the severing of any land from any other land of such person; d) any damage sustained by the person interested, by reason of the acquisition injuriously affecting any other property of such person; e) any reasonable expense incidental to a change of residence or place of business of a person interested which is necessary in consequence of the acquisition. Section 22(2) notwithstanding anything in other law, no transfer stamp duty shall be payable in respect of any conveyance of title consequent upon acquisition of property in terms of this Act.	preparation to levels similar to or better than those of the affected land.	
GN 12.1: The calculation of replacement costs takes into account the following: c) The cost of purchasing or building a replacement structure, with an area, quality and location similar to or better than those of the affected structure, or of repairing a partially affected structure, including labor and contractors fees, and transaction costs, such as registration, transfer taxes and moving costs.	While the Acquisition of Property act makes provision for compensation but is silent on the provision of replacement structures in similar quality locations or better, or compensation to cover the full range of replacement costs. The MHUD Resettlement Policy is more directly aligned with the ESS 5 provisions.	The Acquisition of Property Act does not address this provision but the MHUD Resettlement Policy which is aligned with the ESS5 provisions does make this	Apply ESS5 and National Legislation.
GN 12.1: The calculation of replacement costs takes into account the following: d) The market value of the natural resources, which may include among others, wild medicinal plants, firewood, and other non-timber forest products, meat or fish. However, cash compensation is seldom an effective way of compensating for lost access to natural resources – as discussed in the guidance associated with paragraphs 16 and 33-36. The Borrower assesses means to provide, or facilitate access to similar resources elsewhere, taking into account the impacts at the alternative location, providing cash compensation only when it can be demonstrated that no feasible alternative measures are available.	There is no eSwatini legislation which deals with this aspect.	There is no eSwatini legislation which deals with the loss of access to natural resources.	EEC will apply ESS5 provision on 'physical displacement' regardless of the number of people affected.
ESS Paragraph 26: In the case of physical displacement, the Borrower will develop a plan that covers, at a minimum, the applicable requirements	While the Acquisitions of Properties Act addresses the issue of compensation for the affected people, it is silent on the need to develop a plan on 'economic displacement'. The Ministry of Housing and Urban Development (MHUD) Resettlement Policy and Guidelines (1994) requires that where 10 or more households are affected, a	The legal requirement to develop a plan only applies in the MHUD Resettlement Policy where there are 10 or more affected people. Whereas	In the absence of national legal provision to develop a plan to cover economic displacement, ESS5 provision applies.

ESF Objectives	National Laws and Requirements	Gaps	Recommended Action
of this ESS, regardless of the number of people affected.	resettlement plan is required to be approved, which will consider the needs of vulnerable groups. The MHUD Resettlement Guidelines: 'Support during Transition Periods' apply. Commercial enterprises shall be compensated 6 months in advance and shall receive compensation for lost revenue for up to 6 months. Compensation for farming operations is geared to re-establishment of fields.	the ESS5 applies regardless of the number of people affected.	
ESS 5 - GN 11.2: Early public disclosure of, and consultations on, draft resettlement plan and budgets are important to ensure effective and inclusive planning, which in turn is more likely to lead to successful implementation that meets the objectives of ESS5.	There is no legislated requirement for consultation and disclosure of a Resettlement Plan and stakeholder engagement.	There is no national legal requirement for consultation and disclosure of a Resettlement Plan.	In the absence of national legal provisions for consultation and disclosure the ESS5 provision applies.
ESS5 Paragraph 17. The Borrower will engage with affected communities, including host communities, through the process of stakeholder engagement described in ESS10. Decision-making processes related to resettlement and livelihood restoration will include options and alternatives from which affected persons may choose. Disclosure of relevant information and meaningful participation of affected communities and persons will take place during the consideration of alternative project designs referred to in paragraph 11, and thereafter throughout the planning, implementation, monitoring, and evaluation of the compensation process, livelihood restoration activities, and relocation process. Additional provisions apply to consultations with displaced Indigenous Peoples, in accordance with ESS7.	The MHUD Resettlement Policy and Implementation guidelines (1994) requires a resettlement plan to consider the needs of vulnerable groups.	The National Legislation does not discriminate against anyone. However, additional support to vulnerable persons is not part of these legal provisions or EEC resettlement policy.	The ESS5 and MHUD Policy guidelines must be applied.
GN11.3. Paragraph 11 refers to the importance of taking into account resettlement impacts on the poor and vulnerable in project design. Special attention to vulnerable affected persons	The MHUD Resettlement Policy and Implementation guidelines (1994) requires a resettlement plan to consider the needs of vulnerable groups, including women. .	The National Legislation does not discriminate against anyone. However, additional support to vulnerable persons is not part of these legal	MHUD Policy guidelines must be adopted by the EEC to meet ESS5 provisions.

ESF Objectives	National Laws and Requirements	Gaps	Recommended Action
is also required by a number of other provisions of ESS5 (see Objectives; footnote 4; footnote 9; and paragraphs 7, 8, 28, and others), each of which should be read in conjunction with the definition of disadvantaged and vulnerable persons in footnote 28 of ESS1.		provisions or EEC resettlement policy.	
ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources			
To protect and conserve biodiversity and habitats.	**The Constitution of the Kingdom of Swaziland Act, 2005,** provides that the country and all who reside in it shall protect and make rational use of its land, mineral, water resources as well as flora and fauna. It also underlines that appropriate measures to attain sustainable living through the conservation and enhancement of the environment. **The Environmental Management Act, 2002,** provides and promotes the enhancement, protection and conservation of the environment, as well as sustainable management of natural resources. **The Flora Protection Act, 2001,** provides for the protection of indigenous flora and encourages the eradication of alien and/or invasive plant species. **The Game Act, 2001,** provides for the protection of birds and mammals against any illegal and harmful activities, such as poaching. **The Plant Control Act, 1981,** provides for the control, movement and growth of plants.	There are some gaps between the national legislation and ESS6 (i.e the need for offsets)	Apply ESS6 and national laws
	The **Environmental Management Act, 2002, PART II-Fundamental Purpose & Principles**, mentions the precautionary principle and the need to take into account the needs of the present and future generations.	There are some gaps between the national legislation and ESS6 (i.e the need for offsets)	Apply ESS6 and national laws
To apply the mitigation hierarchy and the precautionary approach in the design and Implementation of projects that could have an impact on biodiversity.	**The Constitution of the Kingdom of Swaziland Act, 2005,** provides that the country and all who reside in it shall protect and make rational use of its land, mineral, water resources as well as flora and fauna. It also underlines that appropriate measures to attain sustainable living through the conservation and enhancement of the environment. **The Environmental Management Act, 2002,** provides and promotes the enhancement, protection and conservation of the environment, as well as sustainable management of natural resources. **The Flora Protection Act, 2001,** provides for the protection of indigenous flora and encourages the eradication of alien and/or invasive plant species. **The Game Act, 2001,** provides for the protection of birds and mammals against any illegal and harmful activities, such as poaching.	There are some gaps between the national legislation and ESS6 (i.e the need for offsets)	Apply ESS6 and national laws

ESF Objectives	National Laws and Requirements	Gaps	Recommended Action
	The Natural Resources Act, 1975, promotes the conservation and improvement of all living natural resources within the country. **The Water Act, 2003,** provides for the sustainable use and management of water resources in the country as well as for the control of pollution. **The Forests Preservation Act no 28 of 1910,** provide for the sustainable management and utilization of forest resources.		
To promote the sustainable management of living natural resources.	Eswatini does not have requirements specific to supporting the livelihood of local communities, and inclusive economic development, particularly with respect to the use of natural resources.	Significant gaps between ESS 6 requirement and the various national laws.	Apply ESS6 and national laws
To support livelihoods of local communities, including Indigenous Peoples, and inclusive economic development, through the adoption of practices that integrate conservation needs and development priorities.	Eswatini does not have requirements specific to supporting the livelihood of local communities, and inclusive economic development, particularly with respect to the use of natural resources.	Significant gaps between ESS 6 requirement and the various national laws.	Apply ESS6 and national laws
ESS 7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities			
NOT APPLICABLE			
ESS 8: Cultural Heritage			
ESF Objectives	**National Laws and Requirements**	**Gaps**	**Recommended Action**
ESS 8: Cultural Heritage	**The National Trust Commission Act, 1972,** provides for the operation of cultural institutions and the proclamation of national parks, monuments and matters incidental thereto. The Swaziland National Trust Commission is the parastatal organisation responsible for the conservation of nature and the cultural heritage of the Kingdom of Swaziland. **Environmental Management Act No 5 of 2002** provides for subjecting proposed projects to Environmental and Social Impact Assessment (ESIA) studies as a mechanism for identifying, evaluating and managing environmental and social impacts of projects. This includes cultural resources. **The Environmental Assessment Regulations, 2022,** issued under the Eswatini Environmental Authority Act, 1992, and the Environmental Management Act, 2002, underline processes that must be taken for any proposed project in order to predict and evaluate likely environmental impacts under studies such as the ESIA. This includes cultural resources. Section 32 of the Environmental Management Act, 2002 emphasizes that no person shall undertake any project that may have a detrimental effect on the environment without the written approval of the EEA.	No significant gaps between ESS 8 requirement and the various national laws.	Apply national laws.

ESF Objectives	National Laws and Requirements	Gaps	Recommended Action
To protect cultural heritage from the adverse impacts of project activities and support its preservation.	Eswatini does not have requirements specific to addressing cultural heritage as an integral aspect of sustainable development.	Significant gaps between ESS 8 requirement and the various national laws.	Apply ESS 8 requirements.
To address cultural heritage as an integral aspect of sustainable development.	Eswatini does not have requirements specific to consultations regarding tangible or intangible cultural heritage.	Significant gaps between ESS 8 requirement and the various national laws.	Apply ESS 8 requirements.
To promote meaningful consultation with stakeholders regarding cultural heritage.	Eswatini does not have requirements specific to equitable benefit sharing from the use of cultural heritage	Significant gaps Between ESS 8 requirement and the various national laws.	Apply ESS 8 requirements.
To promote the equitable sharing benefits from the use of cultural heritage of benefits from the use of cultural heritage.	Eswatini does not have requirements specific to equitable benefit sharing from the use of cultural heritage	Significant gaps Between ESS 8 requirement and the various national laws.	Apply ESS 8 requirements.
ESS 9: Financial Intermediaries			
NOT APPLICABLE			
ESS 10: Stakeholder Engagement and Information Disclosure			
ESS 10: Stakeholder Engagement and Information Disclosure	The Environmental Audit, Assessment and Review Regulations, 2000 requires stakeholder consultation during the ESIA preparation process. Specifically, during the scoping phase, the proponent must conduct stakeholder consultation. It should be noted that this will not be applicable to the project as the proposed project was classified as a Category 1 project requiring little further actions in terms of the law. The EAAR Regulations also allows for public hearing during the EIA process, where - (a) after examining the IEE and/or EIA report and accompanying CMP for the proposed project, it is of the opinion that the project is of such a sensitive or significant nature that the public should have the opportunity to make submissions or comments at a public hearing; or (b) the public concern over the project is great and the number of written and substantiated objections exceeds ten." EAAR Regulations, sec. 12(1)	The national legislation while making some provision for public consultation and hearings does not comply with all the ESS10 requirements.	Apply ESS 10 requirements.
Objective 1: To establish a systematic approach to stakeholder engagement that will help borrowers identify stakeholders and build and maintain a constructive relationship with them, in particular project-affected parties.	There are no clear regulations on how to assess the level of stakeholder interest and support for a project.	Significant gaps exist between ESS 10 requirement and the various national laws. The national regulations provide for minimal engagement and do not meet the ESS10 requirements	Apply ESS 10 requirements.
Objective 2: To assess the level of stakeholder interest and support for the project and to enable stakeholders' views to be taken into account in project design and environmental and social performance.	There are no clear regulations on how to provide means for effective and inclusive engagement with project-affected parties throughout the project lifecycle on issues that could potentially affect them.	Significant gaps exist between ESS 10 requirement and the various national laws. The national regulations provide for minimal engagement and do not meet the ESS10 requirements	Apply ESS 10 requirements.

ESF Objectives	National Laws and Requirements	Gaps	Recommended Action
Objective 3: To promote and provide means for effective and inclusive engagement with project-affected parties throughout the project lifecycle on issues that could potentially affect them.	Environmental Assessment Regulations, sec. 17. Provides for the public participation and access to information It should be noted that this will not be applicable to the project as the proposed project was classified as a Category 1 project requiring little further actions in terms of the law. The EM Act and Environmental Assessment Regulations 2022, sec. 17 Requires the Authority to distribute copies of the EIA and CMP to concerned and affected ministries, local authorities, parastatals, and non-governmental organizations. The Authority shall publish "a detailed statement of the decision for public inspection."	Significant gaps exist between ESS 10 requirement and the various national laws. The national regulations provide for minimal engagement and do not meet the ESS10 requirements	Apply ESS 10 requirements.
Objective 4: To ensure that appropriate project information on environmental and social risks and impacts is disclosed to stakeholders in a timely, understandable, accessible and appropriate manner and format.	Environmental Assessment Regulations 2022, sec. 18(2)(c) The Authority shall "call upon any party who has an interest in the outcome of the public hearing, including the project proponent, the authorising agency, the commenting agency and any other person, to attend the public hearing or solicit in writing comments from other government agencies or offices with expertise or regulatory power over the proposed project." These regulations do not make provision for the effective participation of the full range of stakeholders who may be interested and affected by the proposed project.	Significant gaps exist between ESS 10 requirement and the various national laws. The national regulations provide for minimal engagement and do not meet the ESS10 requirements	Apply ESS 10 requirements.
Objective 5: To provide project affected parties with accessible and inclusive means to raise issues and grievances and allow Borrowers to respond to and manage such grievances.	The Eswatini Environment Authority has a systematic approach to the Environmental Management Act and Environmental Assessment Regulations, Requires the Authority to distribute copies of the EIA and CMP to concerned and affected ministries, local authorities, parastatals, and non-governmental organizations. The Authority shall publish "a detailed statement of the decision for public inspection." Environmental Assessment Regulations, sec. 25(c) "Any person may request from the Minister, the Authority or any other organ of Government any information relating to the environment that is not available in the registry but that could reasonably assist that person in contributing to the enhancement, protection and conservation of the environment and the sustainable management of natural resources." EM Act, sec. 51 Environmental Assessment Regulations, sec. 17 The Authority shall "invite objections, comments or submissions from interested and affected persons..." Environmental Assessment Regulations, sec. 18(2)(c) The Authority shall "call upon any party who has an interest in the outcome of the public hearing, including the project proponent, the authorising agency, the commenting agency and any other person, to attend the public hearing or solicit in writing comments from other government agencies or offices with expertise or regulatory power over the proposed project."	Significant gaps exist between ESS 10 requirement and the various national laws. The national regulations provide for minimal engagement and do not meet the ESS10 requirements.	Apply ESS 10 requirements.

5 ENVIRONMENT AND SOCIAL BASELINE

The following section provides and overview description of the existing environmental and socio-economic conditions of Eswatini and specifically the project area.

5.1 Bio-Physical Environment

5.1.1 Project Location

The Kingdom of Eswatini is situated in the south-eastern part of Africa between 25° and 28° latitude south and 30° and 33° longitude east. The country covers a land area of 17,364 km^2 and has an elevation range of 60 to 1,860m above sea level. The Kingdom of Eswatini is landlocked, bounded by the Republic of South Africa on the north, west and south and by Mozambique to the east. The project will be implemented in the four administrative regions of the Kingdom of Eswatini.

5.2 Physical Environment

5.2.1 Climate

The overall climatic characterization of Eswatini is subtropical with hot and wet summers, with 75% of annual rainfall between October and March, and cold and dry winters between April and September (Masson, 2025). The physiographic zones show clearly different climatic conditions, ranging from sub-humid and temperate in the Highveld to semi-arid and warm in the Lowveld. The Highveld, in the western part of Eswatini, receives the most rainfall, ranging from 900 mm to 1,500 mm, while the Lowvelds receives the least rainfall with annual totals of less than 500 mm (Masson, 2025).

Average maximum and minimum monthly temperatures are 22 °C and 11 °C in the Highveld and 29 °C and 15 °C in the Lowveld with the Middleveld occupying an intermediate position in these gradations (Masson, 2025).

5.3 Topography, geology and soils

The country is divided into six physiographic zones, based on elevation, landforms, geology, soils and vegetation. These run longitudinal north to south and from west to east Highveld, Upper Middleveld, Lower Middleveld, Western Lowveld, Eastern Lowveld and Lubombo.

The mountainous western portion is on steeply dissected escarpment with transitions to plateaux, the Highveld, has an average elevation of 900m to 1400m and at Emlembe it reaches an altitude of more than 1800 m above sea level. The Upper Middleveld has hills with plateau remnants and basins with elevations between 400m to 800m whilst rolling plains with basins and isolated hills are found in the Lower Middleveld. The Western Lowveld is characterized by rolling plains with elevations from 250m to 400m above sea level. Gently undulating plains with elevations between 200m to 300m characterize the Eastern Lowveld. The Lubombo Mountains undulating plateau with steeply dissected escarpment elevations ranging from 250m to 600m (Dlamini, 2002).

The mountainous north-western part of the country, highest ground, has the Eswatini System (quartz and cherts) crops out withing the Barberton greenstone belt. The country slopes eastwards from the dissected edge of the Transvaal plateau beyond which lies the west facing escarpment of the Lubombo Mountain range characterized by basalts and sandstone of the Karoo system. The granites and gneiss are dominant centrally with patches of the Usushwana Complex, Ancient Gneiss Complex and Post Karoo.

Eswatini has a variety of soil types influenced by its topography and climate. In the Highveld and Upper Middleveld, soils are deeply weathered and leached, generally falling under ferralsols, which are deep and well-drained. In the Lower Middleveld and Lowveld, soils are moderately weathered, including vertisols and brown soils, which are clay-rich and retain nutrients well.

Transitional areas, such as parts of the Lowveld and Lebombo, contain fersialitic soils, which are older and moderately fertile. Across all regions, shallow, poorly developed, and wetland soils (hydromorphic soils) can also be found, especially in valleys and low-lying areas.In the Highveld and Upper Middleveld, soils are deep and well-drained but become highly erodible once exposed especially on slopes. The Lower Middleveld and Lowveld feature clay-rich soils like vertisols, which have a high shrink-swell potential.

The Highveld has deep, well-developed soils due to higher rainfall and altitude, but these become prone to erosion when disturbed. The Lowveld has shallower, less weathered soils that are generally more erosion-prone, especially were formed on alluvial or previously eroded deposits.

5.4 Hydrology

There are six (6) major river basins in Eswatini namely, Mlumati, Komati, Mbuluzi, Usuthu, Ngwavuma, and Pongola. The Highveld and Upper Middleveld receive higher rainfall and are characterized by numerous perennial streams. The country's rivers flow eastward towards the Indian Ocean.

The figure (Figure 4-1) below shows the main river basins of the country and those around the project area.

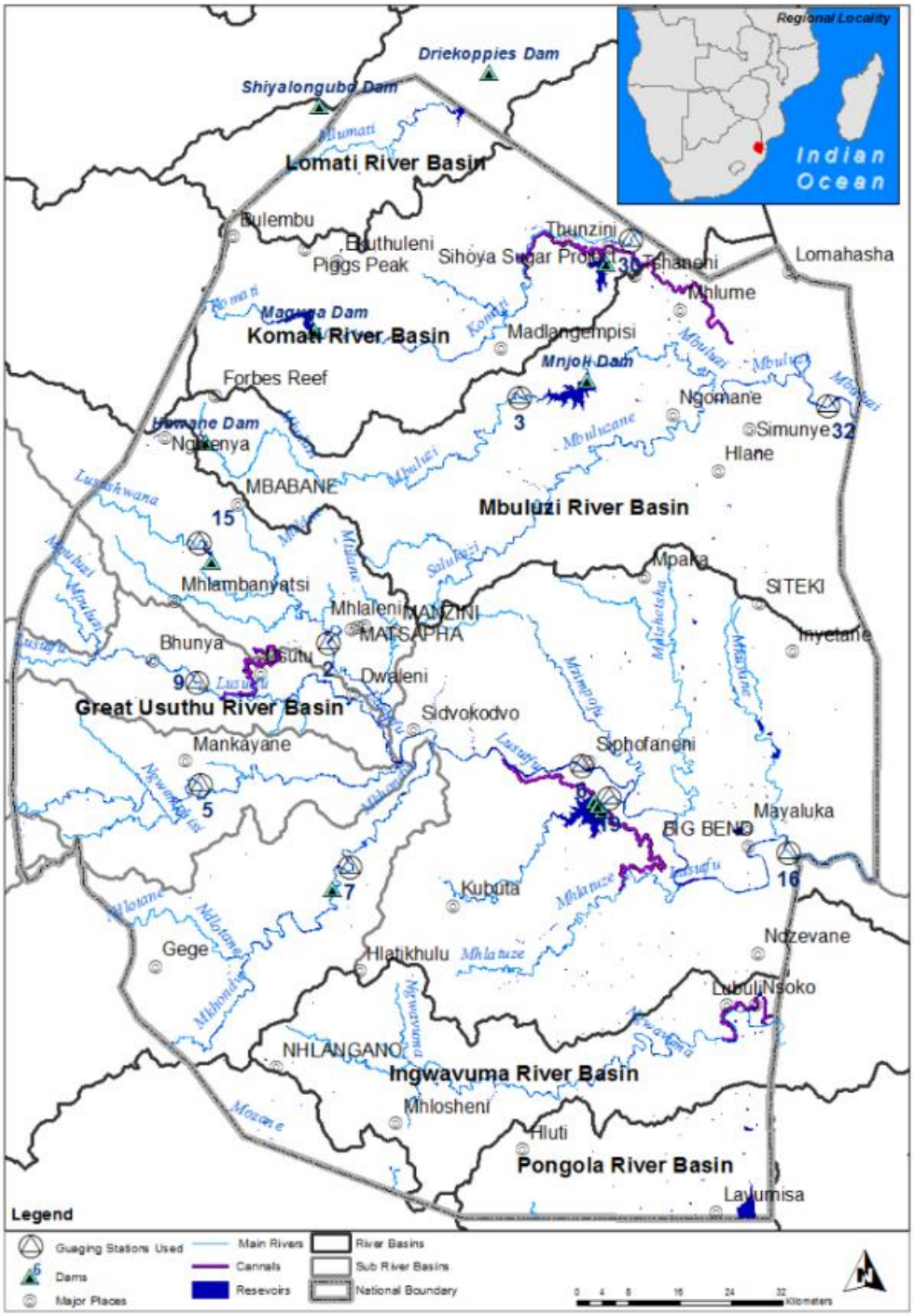


Figure 5-1: River Basins of Eswatini Legal and institutional framework

5.5 Biological Environment

The country has four recognized ecosystems in Eswatini namely (1) montane grasslands, (2) savanna-woodland mosaic, (3) forests, and (4) aquatic systems. The Savanna-woodland mosaic is the most dominant ecosystem in the Middleveld and the Lowveld followed by the Montane grasslands which are in the Highveld. The Montane grassland is crucial for conservation hosting 72% endemic flora, the only endemic vertebrate (Swazi thick-tailed rock gecko) and many

threatened species (Swaziland Environment Authority, 2016). Forests are mainly in the Highveld and the Lubombo mountains.

The Aquatic ecosystem is made up of streams, rivers and wetlands. About 3% of these ecosystems are legally protected highlighting the fact that these ecosystems, and the biodiversity they harbour, are under threat (Swaziland Environment Authority, 2016).

5.5.1 Floral biodiversity

Eswatini's diverse landscapes comprise distinct vegetation zones that are ecologically important and sensitive to disturbance. The Highveld in the west is characterized by short grasslands on rocky outcrops and narrow gorges, with small pockets of species-rich Afromontane Forest. The Middleveld supports tall grasslands interspersed with forest and thicket patches, often invaded by species such as *Caesalpinia decapetala* and *Psidium guajava* along riverine areas. The Lowveld features a range of savanna types, from *Combretum–Terminalia* woodlands to Acacia nigrescens-dominated plains, alongside rich riverine forests threatened by invasive plants like *Chromolaena odorata, Lantana camara,* and *Melia azedarach*. The Lubombo region contains dry scarp and *Androstachys* forests, species-rich Lebombo forest patches, and *Combretum* dominated bushveld, where invasive species also pose significant threats.

Eswatini has 633 tree species were recorded during the Swaziland Tree Atlas project with 35 exotic and 598 indigenous species representing just over 17% of Swaziland's indigenous flora. 56 threatened trees of which 47 are listed in the Swaziland Plant Red Data List and 9 are proposed "candidate" species (Loffler, 2005).

This highlights the importance of safeguarding native vegetation and implementing control measures for invasive species to maintain biodiversity and ecosystem integrity in project areas.

5.5.2 Vertebrates

A total of 821 vertebrate species has been recorded in Eswatini, including a range of fish, amphibians, reptiles, birds, and mammals (Swaziland Environment Authority, 2016). While the country boasts high species richness, some populations are in decline, and a few species have become locally extinct. Of the country's known threatened vertebrates, six are locally extinct, and eleven are found only within gazetted protected areas (Swaziland Environment Authority,

2009). This highlights the importance of avoiding protected areas or ensuring thorough biodiversity due diligence where avoidance is not feasible.

5.5.2.1 Mammals

Eswatini supports a range of mammal and bird species, though biodiversity on Swazi Nation Land (SNL) has been significantly impacted by deforestation, overgrazing, and historic hunting. Large mammals are now largely confined to protected areas and game reserves, highlighting the importance of avoiding these areas or applying rigorous due diligence if any project activity is planned near them. Overgrazed communal lands have seen a decline in small mammal diversity, and several species remain threatened. Biodiversity considerations will be integrated into project screening to ensure sensitive areas are identified and avoided where possible.

5.5.2.2 Avian Biodiversity

Eswatini supports nearly 500 bird species (Swaziland Environment Authority, 2016)including 17 globally threatened species such as the critically endangered White-backed Vulture (*Gyps africanus*), Hooded Vulture (*Necrosyrtes monachus*), and White-headed Vulture (*Trigonoceps occipitalis*) (International Union for Conservation of Nature (IUCN), 2025). Approximately 35 species are listed as regionally threatened (Swaziland Environment Authority, 2016). The country also contains three Important Bird and Biodiversity Areas (IBAs)—Malolotja Nature Reserve, Mahamba Gorge, and the Lubombo Mountains—recognized by BirdLife International (2025) for their high avian diversity and ecological value, underscoring the importance of protecting sensitive habitats during project planning and implementation.

5.5.2.3 Reptiles

Eswatini hosts a variety of reptiles, including snakes, lizards, and crocodiles, occurring across different ecological zones from the highveld to the lowveld. While most species are not threatened, some may be sensitive to habitat disturbance. Project screening will ensure that any work near water bodies or natural habitats considers the presence of reptiles, particularly in areas where species like crocodiles may occur.

5.5.3 Invertebrates

Invertebrates are ecologically important but are not expected to be significantly impacted by transmission and distribution projects. They will only be considered during site-specific assessments if sensitive habitats such as wetlands or forests are affected.

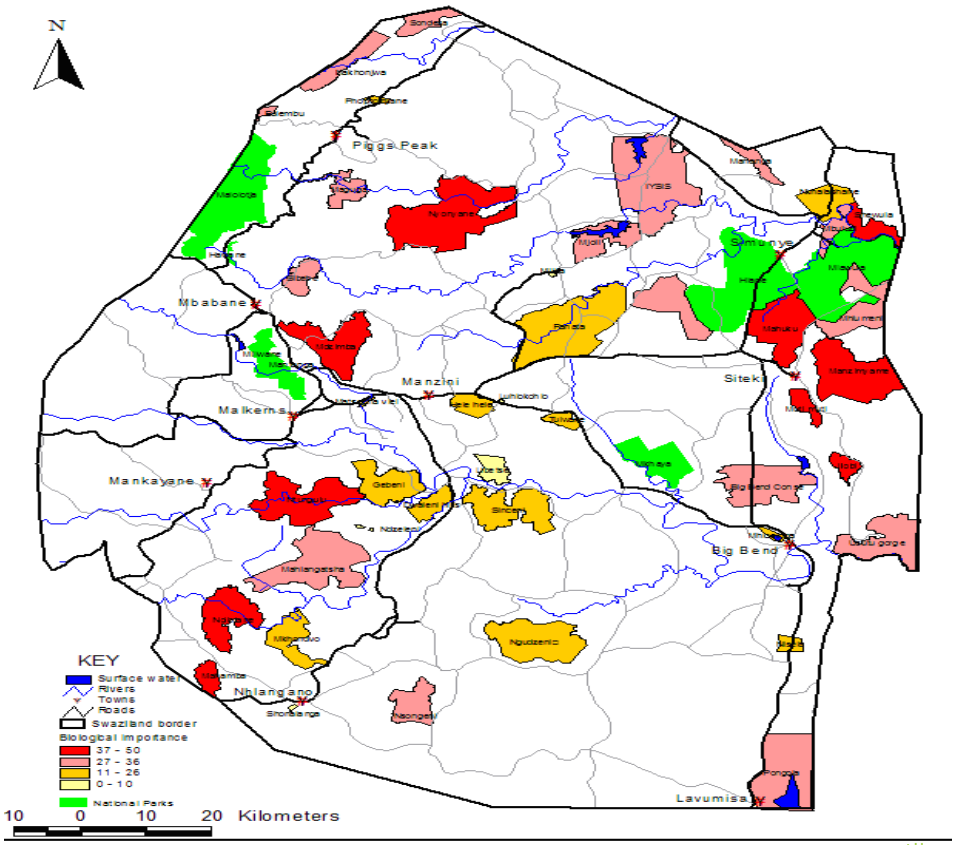
5.6 Description of the social environment

5.6.1 Administrative context

A summary of Eswatini's four administrative regions and 59 Tinkhundla constituencies is presented in Table 4-1, with their spatial distribution shown in Figure 4-4.

Table 5-1: Eswatini's four administrative regions and 59 Tinkhundla constituencies

NO.	HHOHHO REGION	MANZINI REGION	SHISELWENI REGION	LUBOMBO REGION
1	Lobamba	Ludzeludze	Sandleni	Matsanjeni North
2	Madlangemphisi	Ekukhanyeni	Zombodze Emuva	Mpolonjeni
3	Ndzingeni	Mkhiweni	Somntongo	Siphofaneni
4	Mayiwane	Mtfongwaneni	Matsanjeni	Dvokodvweni
5	Ntfonjeni	Mafutseni Lamgabhi	Sigwe	Lugongolweni
6	Pigg's Peak	Mhlambanyatsi	Shiselweni 1	Lomahasha
7	Motshane	Mangcongco	Gege	Lubuli
	Nkhaba	Ngwempisi	Maseyisini	Sithobelweni
9	Hhukwini	Mahlangatsha	Kubuta	Nkilongo
10	Maphalaleni	Manzini North	Mtsambama	Mhlume
11	Mhlangatane	Manzini South	Nkwene	Gilgal
12	Timphisini I	Nhlambeni	Shiselweni	
13	Mbabane West	Kwaluseni	Hosea	
14	Mbabane East	Lobamba Lomdzala	Ngudzeni	
15	Siphocosini	Ntondozi	Kumethula	
16		Phondo		
17		Nkomiyahlaba		



BIOLOGICAL IMPORTANCE

CS

Figure 5-2. A depiction of areas of biological importance. Sourced from http://eswatinibiodiversity.com/

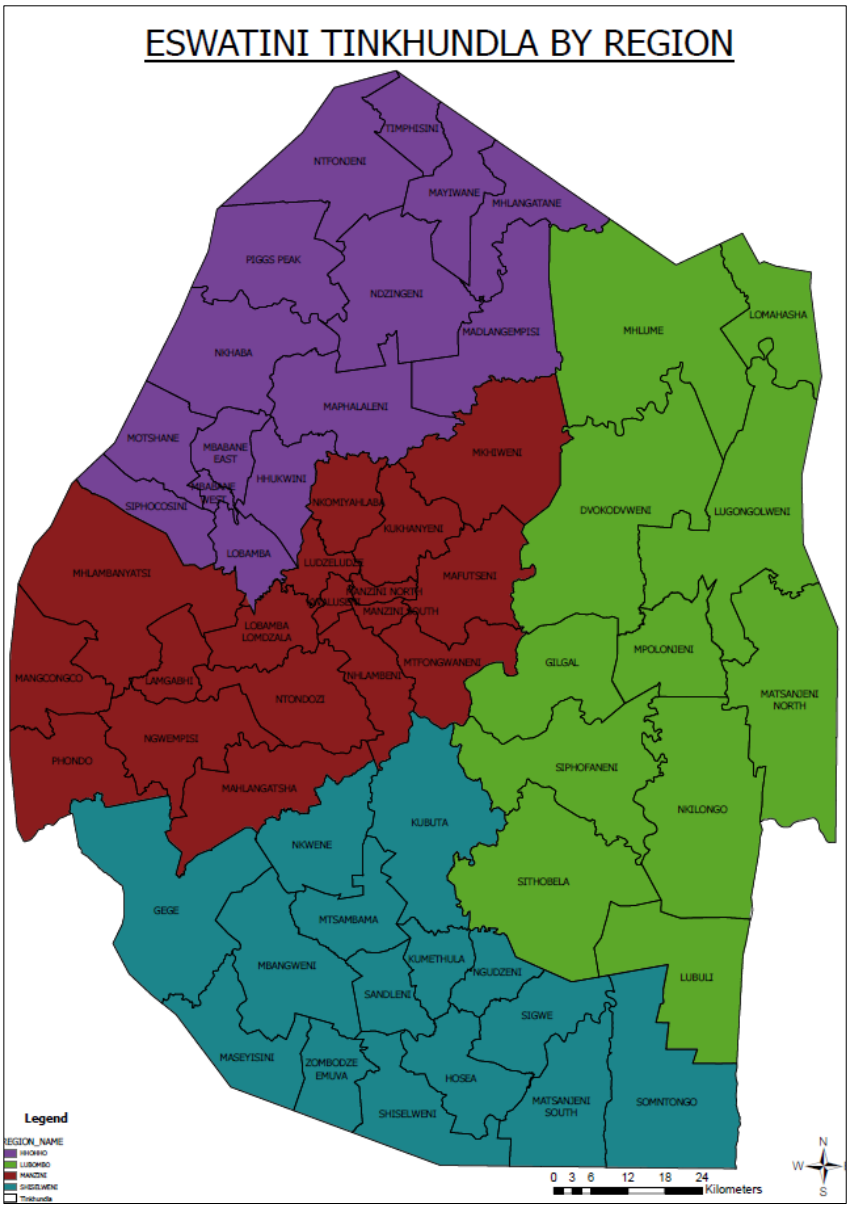


Figure 5-3: Map showing Eswatini's Tinkhundla (Constituencies)

The project's rural focus will involve engagement with traditional communities (Imiphakatsi), which fall under 14 EEC operational depots. A detailed mapping of Imiphakatsi by depot is provided in Appendix 1 to support planning, stakeholder engagement, and grievance handling activities.

5.6.2 Land Tenure

Eswatini has two primary land tenure systems: Swazi Nation Land (SNL), held in customary tenure, and Title Deed Land (TDL), held under freehold tenure. SNL is held in trust by the King and administered by chiefs in accordance with Swazi customary law. Chiefs allocate land for

residential, agricultural, and communal use, based on socially recognized and inherited rights, although this land is not formally titled.

TDL is privately owned and governed by common law, typically found in urban areas, commercial farms, and industrial zones. Given the rural nature of many ASCENT Project components, particularly electricity access expansion, most activities are expected to take place on Swazi Nation Land. This will require active coordination with traditional leaders for land access, community engagement, and resolution of land-related grievances.

5.6.3 Population and Demographics

Eswatini has a population of approximately 1.26 million, with an annual growth rate of 1.07% and a projected increase to 1.5 million by 2050. The country remains predominantly rural, with 68.7% of the population living outside urban areas. Life expectancy is estimated at 64.4 years overall (67.3 for females and 61.4 for males), and the fertility rate is 2.7. The median age is 22.5 years, reflecting a young population. These demographic trends suggest a growing demand for essential services such as energy, particularly in underserved rural areas targeted by the ASCENT Project.

Eswatini has around 293,000 households, largely of Swazi ethnicity, with some Zulu and white minorities. Many rely on both formal employment and traditional agriculture. Poverty, inequality, and food insecurity remain high, especially in rural areas, where vulnerability is increased by a high proportion of orphaned children and dependent populations. These factors highlight the importance of inclusive and targeted electrification efforts.

5.6.4 Socio-economic Context and Livelihoods

Eswatini is classified as a lower-middle-income country but continues to face high poverty (58.9% below the national poverty line), inequality (Gini coefficient of 0.546), and youth unemployment driven by limited job opportunities and skills mismatch. The health sector remains under strain, contributing to poor human development indicators, while access to electricity, though nationally estimated at 85% (UNDP, 2024), remains low in many rural areas. The ASCENT project is well positioned to address energy access gaps and strengthen rural resilience.

Rural livelihoods are primarily based on subsistence farming on Swazi Nation Land (SNL), with maize, legumes, and livestock forming the backbone of household food and income security. Some income is also derived from employment on commercial farms and estates, while small-scale production of cash crops like sugarcane, cotton, and citrus is also present. Livelihoods are vulnerable to climate shocks such as droughts and floods, and are further constrained by limited access to markets, off-farm income, and chronic malnutrition, particularly among children under five.

5.6.5 Health Care Facilities

Access to healthcare in Eswatini is uneven, with rural communities facing significant challenges due to long travel distances, limited infrastructure, high transport costs, and service disparities between public and private facilities. Persons with disabilities also face access barriers. While urban areas like Mbabane and Manzini are better served, rural populations often rely on mobile clinics and outreach programs. Initiatives such as the Clinton Health Access Initiative (CHAI) have improved access in some areas. The project will coordinate with such programs and ensure that each site maintains a directory of nearby healthcare facilities.

Table 5-2: Healthcare facilities in Eswatini

NO.	HHOHHO REGION	MANZINI REGION	SHISELWENI REGION	LUBOMBO REGION
Public Hospitals				
1	Mbabane Government Hospital	R.F.M Hospital	Hlathikhulu Government Hospital	Sithobela Health Centre
2	Piggs Peak Hospital	Mental Hospital	Mankayane Government Hospital	
Public Health care centers				
3	Mbabane Public Health Unit	Dvokolwako Health Centre	Nhlangano Health Centre	Sitsatsaweni Nazarene clinic
4	Mbabane City Council Clinic	Mkhuzweni Health centre	Matsanjeni Health Centre	Tshaneni Health care clinic
	Horo Clinic	Sobhuza Clinic	Mhlosheni clinic	St Phillip's clinic
	Luhlendweni Outreach Site	St. Theresa Clinic	Our Lady of Sorrows clinic	Siteki Nazarene clinic
	Mahwalala Red Cross Clinic	St. Joseph's Clinic	New Haven clinic	Shewula Nazarene clinic
	Maphalaleni Outreach Site	Mkhulamini clinic	Lavumisa clinic	Manyeveni Nazarene clinic
	Melete Outreach Site	Mafutseni Nazarene clinic	Gege clinic	Lubuli clinic

NO.	HHOHHO REGION	MANZINI REGION	SHISELWENI REGION	LUBOMBO REGION
	Sigangeni Clinic	St Jullian clinic	Ntshanini clinic	Sigcaweni Nazarene clinic
	Siphocosini Outreach Site	Ngculwini Nazarene clinic	Hluti clinic	Sinceni clinic
	Mbabane City Council Clinic	Bhekinkosi nazarene clinic	JCI (Mphelandzaba) clinic	Lomahasha clinic
	Bhalekane Correctional Services clinic	Gebeni clinic	Ka Phunga clinic / Phunga Clinic	Siphofaneni clinic
	Family Life Association clinic	Mahlangatsha (Sibovu) clinic	Nkwene clinic	Big Bend Correctional Services clinic / Big Bend Prison Clinic
		Cana Alliance clinic / Cana Mission Clinic	Mahlandle clinic	
		Manzini City Council clinic / Manzini Town Council	Zombodze clinic / Zombodze clinic (Shiselweni)	
		Family Life Association clinic (Manzini)	Mashobeni clinic Nhletjeni clinic	
		Bulunga Nazarene clinic		
Private hospitals				
5	Mbabane Clinic	Manzini Clinic	Dr R.S. Gama clinic /Dr B.B and R.S Gama	Ubombo Ranches (ILLOVO) clinic / Ubombo Sugar Hospital
6	EPH	Women and Children	Zheng Yong clinic	RSSC medical services - Mhlume / Mhlume Medical Services
7	Dr Shilubane clinic / Dr Shilubane Surgery	Philani Clinic		Tambuti clinic / Tambuti Estate clinic
	Dr Wasswa clinic	Mkhiwa Clinic		Tabankulu clinic / Tabankulu Estate Clinic
	Siyanaka Health centre			
	Dr N.T Ntiwane clinic			

5.6.6 Cultural Heritage

Eswatini's cultural heritage includes sacred sites, burial grounds, and archaeological remains, particularly in rural areas. The ASCENT project may encounter such resources during construction. In line with national law and World Bank ESS8, a Chance Finds Procedure will be applied to ensure proper identification, protection, and reporting of any cultural heritage discovered during project implementation.

5.6.6.1 Development context, Poverty and Gender Equality

Eswatini is classified as a medium human development country, with a 2022 Human Development Index (HDI) of 0.610, ranking 142nd out of 193 countries. Regional disparities exist, with Shiselweni and Lubombo consistently ranking lowest in HDI. While primary school

completion rates are relatively high 94% for girls and 88% for boys in rural areas like Shiselweni lag. The Gender Development Index shows near parity in human development achievements, yet the Gender Inequality Index (0.569) highlights ongoing disparities in reproductive health, education, and political participation. As of February 2024, women held 21.6% of parliamentary seats, indicating progress but still reflecting underrepresentation. The ASCENT project will promote inclusive participation and gender-responsive implementation to address these gaps.

Multidimensional poverty remains a critical challenge in Eswatini, with 57.1% of households living below the national poverty line and approximately 33.6% experiencing multidimensional poverty. Rural areas are disproportionately affected, with around 70% of the rural population living in poverty. Contributing factors include limited access to electricity, clean water, sanitation, and employment especially among youth, where unemployment reaches 54.8%. Chronic food insecurity and poor living standards further deepen vulnerability. The ASCENT project's focus on infrastructure and rural electrification is expected to contribute to improved livelihoods and poverty reduction in underserved communities.

5.6.7 Diseases

5.6.7.1 HIV/AIDS

Eswatini has one of the highest HIV prevalence rates globally, with an estimated adult prevalence of 27.4%, disproportionately affecting women (32.5%) more than men (20.4%). While national incidence has declined due to expanded testing and antiretroviral therapy (ART) coverage (over 75%), challenges remain particularly around gender-based violence and barriers to treatment adherence. The Government continues to implement national HIV/AIDS programs, including the Eswatini National AIDS Program and initiatives to prevent sexual and domestic violence. The project will align with these efforts and promote awareness, especially in construction-related labour and community engagement activities.

5.6.7.2 Public Health Emergencies

Eswatini's Public Health Emergency Operations Centre (PHEOC), under the Ministry of Health, coordinates responses to health crises, including pandemics like COVID-19, working closely with the National Disaster Management Authority. The Emergency Preparedness and Response Department oversees epidemic preparedness, disaster management, ambulance

services, and notification systems. In the Shiselweni region, recent foot and mouth disease outbreaks is being managed through strategic government interventions. The project will comply with national emergency protocols and regularly engage relevant authorities to respond effectively to any public health emergencies.

5.6.8 Gender Based Violence

Gender-based violence (GBV), sexual abuse, and discriminatory behavior affect one in three women and girls in Eswatini, with nearly half reporting abuse by age 18 and 48% experiencing some form of sexual violence during their lifetime. These issues are driven by unequal power relations, socio-economic factors, and weak legal enforcement.

The government has ratified international treaties like CEDAW and enacted laws such as the 2018 Sexual Offences and Domestic Violence Act to strengthen protection. Despite these efforts, challenges persist. To address GBV risks linked to the project, EEC will implement a comprehensive GBV/Sexual Exploitation and Abuse/Sexual Harassment Action Plan covering all workers and community interactions.

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5.6.9 Employment Opportunities

Implementation of activities under Sub-components 1b and Component 2 may require external skilled and unskilled labor to project sites thus resulting in labor influx into beneficiary communities. It is estimated that 840 workers are required under Sub-component 1b and Component 2 of the project. Hundred percent (100%) of this labor will be sourced in Eswatini and includes unskilled labor which will be sourced within and outside the project area.

5.6.10 Labor Influx

In order to avoid or minimize the impact of labor influx into the communities for Components 1b and To minimize negative impacts of labor influx for Components 1b and 2, contractors are expected to hire a portion of unskilled labor, approximately 5 out of every 16 workers from local communities. Prioritizing local employment will improve livelihoods and build skills that benefit workers beyond the project. EEC will ensure this requirement is clearly included in contractor and supplier bidding and contract documents.

2.8.9 Accommodation Requirements for Components 1b and 2

EEC will assess worker accommodation needs in line with ESS2 (para 28) and IFC/EBRD guidance. Given the rural nature of Shiselweni and Lubombo regions—with limited formal lodging and challenging access—contractor workers will typically be accommodated in Neighbourhood Care Points (NCPs) or other community facilities such as schools, churches, and halls for the 1–3 month duration of each sub-project. Renting rooms from local homesteads is less preferred to avoid disrupting social cohesion. This approach, successfully used in previous electrification projects, offers practical, cost-effective accommodation within project communities.

The advantages and disadvantages of the community facilities are shown in Table 4-3:

Table 5-3: Accommodation option for Components 1b and 2

Accommodation Facility	Advantage	Disadvantage	ESF/Regulatory/Legal Compliance
Community facilities	• Housing already existing and cost effective for project workers with • Availability of security always in the homestead set up. • Homestead rules will control and restrict contract worker movement patterns.	• Temporary deprivation of access and use of facility by the community • Inadequate basic sanitation facilities (portable water, electricity, ablution facilities)	• Will adequately minimum requirements of worker accommodation according ILO Workers' Housing Recommendation 115 • Meets requirements of the Employment Act, 1980, Section 152 – provision of housing

5.6.10.1 Neighborhood Care Points (NCPs)

NCPs are multipurpose community facilities used for meetings, social services, and emergency support. For Components 1 and 2, only one contractor crew (up to 11 workers) will be accommodated per community at the local NCP, temporarily converted for worker lodging. A Code of Conduct and periodic health, safety, and security audits will ensure compliance with ESS2 (para 28) and national laws. Contractors must provide adequate sanitation, water, energy, security, and access control, minimizing impact on community resources. Community police will support security, helping to prevent criminal activity and SEA/SH risks, while EEC will

oversee monthly inspections and coordinate awareness and PPE provision to mitigate communicable disease transmission. No accommodation camps will be established.

5.6.11 Sustainable Development Goals

Eswatini Ranks is 24th out of 54 African countries on the Sustainable Development Goals (SDG) Index. The country is maintaining its achievement on Climate Change and is on track to achieve the goals of Industry, innovation and infrastructure and Partnerships for the goals by 2030. The country has been able to develop and implement an enabling policy environment with the National Water Policy (2018), Transboundary Water agreements with Mozambique and South Africa; Climate Change Policy (2016), Energy Policy and Master Plan (2018). Scores for Gender equality, Clean water and sanitation, Sustainable cities and communities, and Life on land are increasing at a rate above 50% of the growth rate, but below the rate needed to achieve the goals by 2030.

5.7 Social inclusion

The Project will be guided by an ESMP and the project stakeholder engagement plan. Citizen engagement will be a key component, and the PIU will oversee ongoing and meaningful consultation in communities, paying special attention to the needs and interests of members of vulnerable groups, including persons with disabilities, women, the elderly, illiterate persons and persons living with HIV/AIDS. The Project will establish a citizen's feedback mechanism and project Grievance Redress Mechanism (GRM). The PIU will ensure that the GRM is fully accessible to members of vulnerable groups. The Project will also implement a specific worker grievance mechanism, in line with the requirements of ESS2, to enable project workers to raise workplace related concerns as detailed in Chapter 9. In addition, to prevent and respond to gender-based violence during project implementation, the PIU in collaboration with appointed GBV specialist from each region (GBV service provider) will conduct GBV prevention sessions within the project area and amongst project workers as stipulated in the (GBV action plan in Appendix 2).

6 POTENTIAL ENVIRONMENTAL AND SOCIAL RISKS IMPACTS AND STANDARD MITIGATION MEASURES

The section provides an overview of the potential environmental and social impacts and risks related to the proposed activities to be undertaken under Sub-component 1b and Component 2.

The risks and impacts have been screened at high level and summarized based on consideration of the information presented in the baseline and from similar projects previously undertaken by EEC. The significance of each of the impacts have been classified as *Low, Medium or High* as per the defined in the table below.

Table 6-1 Definitions of the impact classification

High	Of the highest order possible within the bounds of impacts that could occur. In the case of adverse impacts, there is no possible mitigation that could offset the impact, or mitigation is difficult, expensive, time-consuming or some combination of these. Social, cultural and economic activities of communities are disrupted to such an extent that these come to a halt. In the case of beneficial impacts, the impact is of a substantial order within the bounds of impacts that could occur.
Medium	Impact is real, but not substantial in relation to other impacts that might take effect within the bounds of those that could occur. In the case of adverse impacts, mitigation is both feasible and fairly easily possible. Social, cultural and economic activities of communities are changed, but can be continued (albeit in a different form). Modification of the project design or alternative action may be required. In the case of beneficial impacts, other means of achieving this benefit are about equal in time, cost and effort.
Low	Impact is of a low order and therefore likely to have little real effect. In the case of adverse impacts, mitigation is either easily achieved or little will be required, or both. Social, cultural and economic activities of communities can continue unchanged. In the case of beneficial impacts, alternative means of achieving this benefit are likely to be easier, cheaper, more effective and less time-consuming.

The potential environmental and social impacts associated with the construction of the distribution line and connection of individual houses are expected to be medium to low in magnitude, extend over a small area, be of short duration, and reversible when addressed through application of effective mitigation measures.

6.1 Summary of activities associated with both Sub-component 1b and Component 2.

The activities to be undertaken under Sub-component 1b includes distribution network upgrades, including construction and uprating of low to medium distribution lines, installation of underground cables, ABC conductors, combi units, remotely controlled reclosers, transformer uprating, and replacement of wooden poles with steel monopoles. The activities of both components are similar in nature, many of which could potentially influence the environment and social (including occupational and community health and safety) aspects of the immediate receiving environment.

Component 2 focuses on rural and peri-urban group scheme projects, involving the construction of low-voltage lines to connect individual homesteads, along with the installation of ready-boards for households that cannot afford full internal wiring. In remote areas, solar home systems and solar mini grids will be considered as alternative electrification solutions.

The activities likely to have an impact are listed and briefly discussed below:

6.1.1 Pre-construction

6.1.1.1 Medium to Low Distribution Network

This phase entails a visit to the site to establish existing infrastructure and recording of requirements (scope) to create a tentative design of the reticulation network. An environmental and social assessment is undertaken to determine likely impacts of proposed project and their proposed mitigation measures. Once the reticulation network designs are finalized, mapping of the proposed network route is done to facilitate the generation of the bill of material. Procurement (material and contractors) and pegging of the line is undertaken. The contractors mobilize resource to site in preparation of commencement of construction work.

6.1.1.2 Home-based Solar activities

The project shall appoint a consultant to conduct the home solar system electrification solution. The study by the consultant shall build from the findings of the "Least Cost Electrification Options study report". The study by the consultant will design the off-grid electrification solution, recommend rolled-out strategy, ownership, after service support (maintenance), payment structure, among other things. The design of the home solar system will include redoing energy audits since households in the previous study could have changed requiring bigger systems, etc. The study report must also highlight the potential hazards like waste, etc. that may arise during the rollout and operation phases of the project and how these will be mitigated. A comprehensive waste management plan must be developed covering how each component of the solar home system needs to be disposed off safely in an environmentally friendly and sustainable manner.

6.1.1.3 Off-grid activities

The scope of the consultant in 6.1.1.2 shall also include the design of the off-grid standalone centralised solar PV system to electrify a community cluster of households. The study for this application shall include identification of communities that are suitable for this solution, carrying out energy audits, measurement of the solar resource, sizing of the system, design of a suitable reticulation system and recommend financing structure and repayment and ownership arrangements. Since construction phase for this solution will require clearing of land for the centralised solar PV plant and providing servitude for the distribution of the electricity to the various households, then IEE/CMP or ESIA/ESMP, depending on the EEA categorisation, may need to be conducted.

6.1.2 Construction phase

6.1.2.1 Distribution Network

During the construction phase of the distribution lines the following activities are likely to have an adverse environmental and social impact:

- *Establishing and preparation of the servitude/ corridor*

  Both Sub-component 1b and Component 2 will take place within rural and peri-urban areas with largely modified vegetation. Partial clearance of vegetation will be required for the establishment of foundations and erection of poles. These activities will likely result to disturbances, temporary loss of livelihoods and loss of income.
- *Pole erection*

  The creosote treated wooden and steel monopoles poles shall be considered for construction of the lines. Pole erection involves excavation (manual using picks & shovels or TLB), erection (manual or using hiab truck) and backfill using the excavated soil then re-instate vegetation around the base. Steel monopoles may require pre-cast concrete or concrete cast on site.
- *Transformer installation*

  Installation of the transformer involves the construction of transformer structure on either a double or a single structure. Fuses and lightning arrestors holders are then installed for isolation and protection of the transformer against lightning.
- *Stringing of conductors.*

This involves the delivery and off-loading of conductor wire (Aluminium Steel Reinforced) to site, uncoiling, lifting of conductor and stringing it between the pole spans. The conductor will be stringed using manual lever hoist and dynamometer. The employees will use ladders supported on the wooden poles when stringing the conductor.

- *Connecting houses to the distribution grid.*
  Houses will be connected to the grid via an overhead cable connection between the house and the nearest electrical connection.

6.1.2.2 Home-based Solar activities

The rollout of the solar home system (SHS) will be largely localised to each household and will be completely off-grid but overtime as the grid is extended the SHS will evolve to grid-tied. Each household will be installed with a solar home system suitable for their budget to meet basic electricity needs. The following solar home system designs may be available according to affordability.

The entry level simple system this system comprises of simple solar light with an inbuilt battery which is rechargeable from sunlight for lighting and a small solar PV panel for charging of cellphones.

Entry level Inverter system - However, the system design study and implementation financing structure may determine that small systems shall comprise of two solar PV panels, battery and inverter so that each household at the entry level can be able to have lighting, watch TV, play small radio, charge cellphones, etc.

However, during the system installation phase waste may be generated from the product packaging materials (cardboard boxes, wooden crates, damaged solar PV panels, batteries, LED lamps, etc.) and this must be managed in accordance with the waste management plan developed for the project.

6.1.2.3 Off-grid activities

Environmental and social impacts that may arise from the construction phase of the project will be addressed in accordance with the CMP or ESMP whichever is applicable to site where implementation of the project will be designated.

The implementation of the off-grid centralised solar PV system shall comprise the following activities:

Clearing and Preparation solar PV plant site

The extent and scope of the works for the clearing and preparation of the site for the solar PV plant site will be determined by the vegetation, the terrain and the geography of the site. A simple flat landscape will require mild earthworks as opposed to sloppy and rocky terrain.

Civil Works

There will be civil works for the support steel structures for solar PV panels, construction of a control room to house inverters, control panels, etc. There will be not switchyard requirements since power output to be distributed to the households will come directly from the inverters and connected directly to the overhead reticulation system through underground cables.

Power Distribution network Construction

This will follow the normal grid electrification routine whereby a servitude will be surveyed to ensure there is no encroachment to people's properties. If there is no servitude, then land must be acquired in compliance with ESS5 and the RPF. Construction of the distribution network will involve excavation of holes to erect wood poles that will support the conductors. This will have environmental impacts that will be addressed in compliance to developed CMP/ESMP. There will also be string of conductors on the erected poles which require people to work at hights and the risks of working at heights will be mitigated in compliance with Occupational and Community Health and Safety Implementation Plan (OCHSIP). The OCHSIP will also be complied with during the actual connection of the households since there is still working at heights and electric shocks that people will be exposed to.

6.1.3 Operational phase

6.1.3.1 Distribution Network

The operational phase entails commissioning of the distribution network, conducting routine maintenance and attending to electrical faults on the network. Routine maintenance will include visual inspection of the distribution network, management of vegetation to ensure adequate clearance is maintained, removal and replacement of faulty equipment etc.

6.1.3.2 Home-based Solar activities

Each household must be educated on how to manage the handling and disposal of hazardous waste. Waste will arise from components of the solar home system that reached or exceeded their useful life requiring replacement with new ones. The old components must be disposed of in accordance with the approved waste management plan developed at design stage of the project.

6.1.3.3 Off-grid activities

The company that will be responsible for the operation and maintenance of the off-grid electricity system will have to manage all environmental, social and health and safety issues in accordance with the developed safeguards instruments.

6.2 Environmental and Social Risks and Impacts

The table below summarises the potential E&S risks and mitigation measures associated with the implementation of the activities described in section 4.1. Detailed mitigation measures for each of the risks and impacts in the project life cycle are presented in the ESMP (Section 5).

Table 6-2: Risks and impact during the pre-construction, construction and operation phase

Receptor	Potential Issue	Potential Risk/Impact	Risk Classification	Mitigation Measures
1. ENVIRONMENTAL RISKS				
a. Soil	Clearing of vegetation, excavation, construction/use of access roads	Soil erosion, siltation	Medium	i) Limit clearing to minimum required width ii) Rehabilitate disturbed areas
	Open defecation by contractor workers in forested areas	Soil contamination; public health risks	Medium	i) Provide toilets ii) Hygiene training iii) Daily site supervision
	Poor management of waste, wastewater and used chemicals	Soil contamination; public health hazards	Medium	i) Separate hazardous and general waste ii) Label and store waste safely (hazardous waste to be in secured, concrete floored and roofed areas with bunding iii) Label and store chemicals properly iv) Licensed disposal
b. Water	Open defecation by contractor workers in forested areas	Water contamination; public health risks	Medium	i) Provide toilets ii) hygiene training

Receptor	Potential Issue	Potential Risk/Impact	Risk Classification	Mitigation Measures
				iii) daily site supervision
	Poor management of waste, wastewater and used chemicals	Water contamination; public health hazards	Medium	i) Separate hazardous and general waste ii) label and store chemicals properly iii) Label and store waste safely (hazardous waste to be in secured, concrete floored and roofed areas with bunding iv) licensed disposal
c. Sensitive habitats	Construction near rivers or wetlands, protected areas, nesting sites	Sediment runoff; pollution from fuel/oil leaks; aquatic ecosystem disruption	High	i) Working within designated servitude. Specialised design of infrastructure to accommodate the special site. Following a mitigation hierarchy approach by avoiding sensitive areas, where feasible, and where avoidance is not feasibly implement appropriate mitigation measures. Install erosion control ii) Proper fuel handling
d. Air & Public Health	Dust and noise from excavation and movement of	Respiratory issues in workers and communities; nuisance complaints, air pollution	Medium	i) Dust and noise suppression (e.g., water spraying) ii) Limit work hours

Receptor	Potential Issue	Potential Risk/Impact	Risk Classification	Mitigation Measures
	construction vehicles/plant, burning of waste on site			iii) Notify communities iv) Prohibit burning of waste on site
e. Biodiversity	Clearing of servitude/RoW for line installation, construction of access roads.	Loss of biodiversity; increase in alien & invasive species; soil erosion and habitat fragmentation	Medium	i) Assess area for sensitive habitats or species ii) Limit clearing to minimum required width iii) Protect topsoil iv) Use existing roads v) Implement erosion control where necessary vi) Rehabilitate disturbed areas
	Electrocution risk from lines near wetlands or forests, hunting	Bird mortality; ecosystem disturbance, loss of fauna	Medium	i) Use bird diverters ii) Insulate conductors in sensitive habitats iii) Prohibit hunting
f. Landscapes	The visual intrusion of wooden poles or lattice structures and lines may impact the aesthetic value of the landscape.	Loss of scenic or cultural landscape value Negative impact on tourism Community dissatisfaction/ opposition	Medium	i) Engage stakeholders and communities. ii) Due consideration to landscape views and important environmental and community features for subprojects.
2. SOCIAL RISKS				

Receptor	Potential Issue	Potential Risk/Impact	Risk Classification	Mitigation Measures
a. Workers	Unsafe climbing, dust and noise from construction activities, lack of PPE	Falls, injuries, or fatalities	High	i) Implement an OHS Management System ii) Conduct risk assessments and DSTIs prior to commencing with works. iii) Mandatory PPE iv) Prepare and implement a Working at heights and fall rescue plan. v) Climbing safety equipment vi) Daily toolbox talks
	Failure to provide adequate legally required wages, benefits, hours of work and other conditions of employment may arise.	Turnover Unfair dismissal Illegal strikes Fatigue	Medium	i) Ensure HR policies and procedure for wages, working hours, leave, overtime etc. are in place
b. Communities	Influx of labor, poor behavior	Gender-based violence (GBV), sexual exploitation and abuse (SEA), community tension	High	i) Code of conduct ii) SEA/SH training iii) Local hiring iv) Worker supervision
c. Cultural Heritage	Excavation in undocumented heritage areas	Damage to sacred sites or graves	Medium	i) Apply chance find procedures ii) Involve local leaders iii) Stop work if finds occur

Receptor	Potential Issue	Potential Risk/Impact	Risk Classification	Mitigation Measures
d. Project Affected Persons	Land acquisition, lack of compensation for land/crop damage	Grievances; project delays; reputational risk	High	i) Clear, documented RAP and compensation process ii) stakeholder consultation and grievance mechanism
e. Vulnerable groups (including women, children, persons with disabilities, LGBTI, the poorest of the poor, etc.)	Discrimination of women and other vulnerable groups, child labour	Economic exclusion Exploitation Discrimination GBV Infectious and communicable diseases e.g. HIV/AIDS	Medium	i) Give equal opportunity and fair treatment during employment ii) Prohibit discrimination with respect to race, gender or compensation. iii) Advertise all positions with clear job requirements iv) Comply with the Employment Act and ESS2 requirements on gender equality in the workplace which will include the provision of maternity leave, nursing breaks and sufficient and suitable toilet facilities separate for men and women employees. v) Create an enabling work environment that seeks to address potential sexual exploitation or harassment in the recruitment and retention of skilled and unskilled female workers by applying fair recruitment practices.

7 ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

The following section sets out the Environmental and Social Management Plan (ESMP) that has been prepared for the distribution line components (Sub-component 1b and Component 2) as part of this document and is presented in Table 7-1 and Table 7-2. The Environmental Social Management Plan (ESMP) provides feasible and cost-effective measures that will reduce potentially significant adverse environmental and social impacts to acceptable levels.

The purpose of the ESMP is to summarize the anticipated significant adverse environmental and social impacts, provide details on mitigation measures including the type of impact to which it relates, including linkage with any other mitigation plans (e.g., Labor Management Plan, Occupational and Community Health and Safety Implementation Plan etc), sets out any specific monitoring requirements and the responsibilities for implementation. It should be noted that the Environmental and Social Management Plan should be seen as a working document which will be reviewed and adapted as the project details becomes, or in the event of any changes to activities or based on outcomes from incidents and site inspections which justifies an update of the ESMP.

7.1 Integration of the ESMP with the Project

The overall responsibility to ensure integration and compliance with the requirements in the ESMP remains with the EEC. EEC will ensure that the ESMP and other relevant project instruments form part of the tender documentation and contractual agreements with contractors involved with activities under Sub-component 1b and component 2. EEC will ensure that as part of the bidding documentation, the contractors have made adequate financial provisions for the implementation of the ESMP.

Table 7-1:Description of the negative environmental and social impact and mitigation measures

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
Pre-Construction Phase						
Land use						
Unauthorized Land Use The project routes will pass through rural homesteads, fields and grazing land. Working in such areas without consent from owners can result in complaints and extreme cases can delay the project or require use of alternative routes.	Medium	i) Avoid impact on private properties as far as reasonably practicable. ii) Obtain written consent from all landowners. iii) Clearly mark line route before construction. iv) Engage with communities prior to the commencement of survey and construction activities. v) Communicate the project grievance mechanism to communities.	Stakeholder Engagement Plan; Grievance Mechanism; Q-S-SD-S-P-07-D01_Engineering Survey Technical Specification	Low	Survey Department	Social Officer
Impact on land use Some homesteads have structures close to the existing 11kV lines.	Medium	i) Screen proposed alignment to avoid impact on private properties including crops etc.	E-S-SH-P-06_ESIA Procedure	Low	Survey Department	Social Development Officer

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
Works may impact these homesteads. The route also traverses fields.		ii) Ensure that all structures observe minimum clearances from distribution lines iii) Avoid scheduling construction when fields are active (summer) iv) Obtain consent from land and/or property owners to construct lines within properties v) Compensate for losses/damages caused to private property, including crops. vi) Ensure the project grievance mechanism is in place and has been effectively communicated to the community members, in particular members of vulnerable groups.	D01_Engineering Survey Technical Specification; Grievance Mechanism; Project RPF			

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
Biodiversity, Soil and Water						
Impact on biodiversity, soil and water The proposed distribution line may cross modified natural habitats and areas with soils which are susceptible to erosion, particularly on steep slopes.	Medium	i) Screen proposed distribution line alignment to avoid areas with biodiversity sensitivities, areas prone to erosion and any watercourses, wetlands or streams. ii) Select alignments that are located close or next to existing access roads in order to prevent the need for creating new roads. iii) Limit clearing of vegetation iv) Protect and replace soil removed from around the tower bases. v) Rehabilitate disturbed areas.	E-S-SH-P-06_ESIA Procedure	Low	Survey Department	Environmental Officer
Contractor Management						
Suspension of construction works The project might be suspended due to use of unregistered contractors,	Medium	i) Ensure that the project uses registered contractors ii) Relevant OHS and E&S plans in place and sufficient to avoid or control impacts	Implement EEC Integrated Management System (IMS)	Low	Distribution	Outsourced Services within EEC OE EHS Officer, PIU EHS Officer(s)

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
the project and construction levy are not paid or due to substandard work due to inexperience.		iii) Key staff available and competent (qualified) iv) Award only to contractors with E&S qualifications and experience that meet the specific criteria	Q-F-CS-P-05_Supplier and Contractor Registration Procedure Q-S-OS-P-01_Contractor Management Procedure ES-S-SH-D-01_ Occupational and Community Health and Safety Implementation Plan; Contractor and Subcontractor Occupational Health Plan			
Aesthetics						
Visual	Medium	i) Consult with communities	E-S-SH-P-06_ESIA	Low	Survey Department	Environmental Officer

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
Powerlines are a visual eyesore on pristine landscape.		ii) Siting power lines, with due consideration to landscape views and important environmental and community features. or tourism establishments.	Procedure, Stakeholder Engagement Plan, Q-S-SD-S-P-07-D01_Engineering Survey Technical Specification			
Soil						
Soil Erosion Routing line routes on erosion prone areas can result in soil erosion	Medium	i) Avoid planning routes along erosion prone areas	Q-S-SD-S-P-07-D01_Engineering Survey Technical Specification, E-S-SH-P-06_ ESIA Procedure	Low	Survey	Environmental Officer
Construction Phase						
Soil						
Soil Erosion The establishment of the wooden pole structures entails activities that will disrupt surface soils and	Medium	i) Clearly demarcate the construction area and stay within the boundaries ii) Implement construction activity during dry season	E-S-SH-P-06_ESIA Procedure Q-S-SD-S-P-07-D01_Engineering	Low	Contractor	Environmental officer

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
lead to potential erosion by water and wind impacts especially by the higher slope areas.		iii) Strip and store topsoil separate from sub-soils within the construction boundary. iv) Limit soil disturbance/excavation site v) Backfill excavations as soon as reasonably practicable vi) Implement erosion control measures in areas prone to erosion or in the event that erosion has occurred vii) Rehabilitate disturbed as areas as soon as reasonably practicable	Survey Technical Specification E-S-SH-P-01-D-04_Vegetation Management			
Soil Contamination Hazardous chemicals and other substances can potentially spill on land and cause a negative impact. These include hydrocarbons during refueling of machinery/ equipment and leakage	Medium	i) Ensure that machinery, equipment and vehicles on site are well maintained, serviced and in good condition ii) In case of spillages, minor spills will be cleaned up by contractor whilst major oil spillages will be remediated in accordance with EEC emergency preparedness	SS-SH-M-01_Emergency Preparedness and Response plan	Low	Contractor	Environment Officer

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
from vehicles. Spillage of oil from transformers during handling can result in contamination of the soil. Soil contamination can also result from temporary storage of creosote treated poles.		and response plan for oil spillages. iii) The contractor shall use EEC emergency preparedness and response plans which include oil / chemical spill management. iv) Oil contaminated soil will be bio-remediated on site by contractor. v) Provide adequate sanitary facilities for site personnel vi) Avoid storing creosote treated poles directly on the ground vii) Poles should be pretreated at an appropriate facility to ensure chemical fixation and prevent leaching, and to impede the formation of surface residues at the right-of-way. viii) Evaluating the cost and benefit of using alternative pole materials (e.g. steel, concrete, and fiberglass).				

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
		ix) Consider use of alternative preservatives (e.g. copper azote); Undertake appropriate disposal of used poles. x) Landfill facilities should be capable of handling wastes that may have chemical leaching properties xi) Transformers will be temporarily stored on saw dust or sand before installation. xii) The saw dust/sand at the transformer storage site will be checked weekly for leakages and removed as and when stains are noticed. xiii) Any Waste transformer oil will be adequately collected and transferred by a registered waste transporter to a registered hazardous				

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
		landfill/facility for treatment and disposal				
Biodiversity						
Loss/damage of flora and fauna Activities such as Site establishment, clearing for access roads and digging holes, removing and pruning of trees and vegetation may result in loss or damage to flora. Vegetation clearing may disturb or displace small mammals, birds, reptiles, and invertebrates in the project area. Habitat fragmentation may also occur in sensitive or relatively undisturbed areas.	xHigh	i) Avoid sensitive habitats ii) Limit disturbance on flora to construction site iii) Cut as little of trees as necessary to maintain the necessary clearance iv) Agree with communities or owners (as appropriate) as to disposal of the wood or plant materials. Consider donating wood from tree cutting to the community v) Replace/Revegetate where flora has been removed vi) Use topsoil for rehabilitation to facilitate vegetation regrowth vii) Prohibit hunting, trapping or killing of wild animals on site	E-S-SH-P-01-D-04_Vegetation Management	Medium	Contractor	Environmental officer

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
Open excavations may result in injury to and in extreme cases death of animals. Animals such as snake may be killed by workers.		and train workers on this regard. viii) Ensure that no excavations are left uncovered for long periods.				
Increase in invasive species There is likely to be an increase in alien invasive species due to land disturbance.	Medium	i) Limit construction activity to the servitude ii) Re-vegetate disturbed as areas with indigenous species to minimize spread of alien invasive species. iii) Manual removal of alien invasive and weed species should take preference rather than herbicides. iv) Herbicides should only be applied by a person trained to mix and apply the herbicides.	E-S-SH-P-01-D-04_Vegetation Management	Low	Contractor	Environment Officer
Land Use						

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
Unauthorized land use	Medium	i) Clearly demarcate the construction area and stay within the boundaries ii) Engage stakeholders including E&S Team should there be change to the route iii) Demarcate the construction footprint and use the smallest area possible iv) Seek consent from landowners	Stakeholder Engagement Plan; Grievance Mechanism; Q-S-SD-S-P-07-D01_Engineering Survey Technical Specification	Low	Distribution	Social Development Officer
Impact on planted crops/fields Construction activities can result in damage of crops planted in fields which line traverses.	Medium	i) Demarcate the construction footprint and use the smallest area possible ii) Seek consent from landowners to work on fields iii) Avoid working during planting season v) Minimize damage to planted crops vi) Compensate for any losses to crops	Project RFP	Low	Distribution Department	Social Officer
Waste Management						

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
Increase in waste generation Waste generation is unavoidable during the construction stage, thus poor management can lead to pollution, injuries to public and animals. Waste is a nuisance if not disposed of properly. Anticipated waste during this phase includes scrap material (conductors, wooden poles, bolts & nuts) cement bags, packaging material and plastics.	Medium	i) Ensure waste disposal receptacles are made available on site for workers. ii) Prohibit littering on site iii) Dispose waste in accordance with relevant waste legislation. ,EEC waste handling and disposal procedures and World Bank ESS3 standard and WBG EHS guidelines for best practice iv) Minimize waste generation in accordance with the waste hierarchy v) Separate waste at source and recycle/reused waste, where feasible vi) Prohibit burning of waste on site	E-S-SH-P-05_Waste Handling and Disposal Procedure	Low	Contractor	Environmental Officer
Water and Sanitation						

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
Contamination of water resources Construction activity may result in water contamination due to lack of sanitary facilities, chemical spills and leakages and improper management of wastewater.	Medium	i) Provide adequate sanitary facilities for site personnel ii) Sanitation facilities should be cleaned on a regular basis. iii) Sanitation facilities (portable toilets) should not be located near any water courses or sensitive area. iv) No material laydown or storage including creosote treated poles, temporary construction sites are to take place within 32m from any water course. v) Ensure that machinery, equipment and vehicles on site are well maintained, serviced and in good condition vi) Contain spillages vii) Clean contaminated water resources in accordance with the EEC Emergency	SS-SH-M-01_EEC Emergency Preparedness and Response Plan	Low	Contractor	Environmental Officer

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
		preparedness and response plan viii) Maintain temporary storage for waste in accordance with Eswatini legislation and World Bank standards and guidelines				
Air Quality						
Generation of dust Dust generation during the construction phase is predicted due to the nature of activities (e.g. transporting of equipment, preparing land for pole establishment etc.).	Low	i) Dust suppression mechanisms, like sprinkling water will be employed regularly to prevent nuisance and air pollution. ii) Limit clearing of vegetation to the immediate construction footprint iii) Speed limits should be strictly enforced especially on dirt roads to prevent excessive dust. iv) Provide adequate PPE in the form of dust masks and glasses	S-S-SH-D-04_OHS Plan E-S-SH-P-01-D-04_Vegetation Management	Low	Contractor	Environmental Officer
Emissions to air	Medium	i) Ensure that machinery, equipment and vehicles on site	E-S-SH-P-05_Waste	Low	Contractor	Environmental Officer

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
Exhaust fumes from construction vehicles and equipment and burning of solid waste on site may result in increase of carbon dioxide		are well maintained, serviced and in good condition. ii) Prohibit burning of solid waste on site	Handling and Disposal Procedure			
Aesthetics						
Visual Impact Construction site (excavations, stockpiles, spoil site, construction material) can be a visual eyesore.	Low	i) Practice good housekeeping ii) Rehabilitate disturbed land & level stockpiles as soon as reasonably practicable	E-S-SH-P-05_Waste Handling and Disposal Procedure	Low	Contractor	Environmental Officer
Noise Impacts						
Noise generation It is likely that during construction activities such as vegetation clearing, vehicle movement, site personnel, an increase in noise in the	Low	i) Inform landowners/residents on proposed project activity ii) Limit construction works to between 7am and 5pm during the week and between 7am and 3pm on weekends iii) No construction works shall be carried out at night	SEP S-S-SH-D-04_ Occupational and Community Health and Safety Implementation Plan, Stakeholder Engagement Plan	Low	Contractor	Environmental Officer

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
affected areas is experienced.		iv) Ensure that machinery, equipment and vehicles on site are well maintained, serviced and in good condition v) Provide adequate PPE to workers if working in areas with excessive noise.				
Archeology, graves & cultural heritage						
Damage of unmarked graves or archeological artifacts underground Graves could be identified during project activities. Working around this area can result in disturbance or damage to the graves.	Medium	i) Implement the requirements of the Chance Finds Procedure ii) Stop activity on site when archeological features or unmarked graves are discovered iii) Inform the relevant stakeholders about the discovery iv) Engage grave owners before commencing works at this section	Chance Find Procedure, Stakeholder Engagement Plan	Low	Contractor	Social Officer

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
		v) Inform EEC Social Development Officer about the grave vi) Clearly demarcate the grave site which are within close proximity of the works to prevent any damage or disturbance during construction.				
Occupational Health and Safety and Security						
Increase in workplace incidents and diseases Construction works have many hazards such as falling from heights, sharp objects, falling objects, moving equipment/vehicles, open excavation. The area also has unsafe water sources.	Medium	i) The Contractor is to prepare an OHS Plan and file in line with the Project OHS Plan/Requirements prior to commencement with construction. ii) Require contractor to conduct risk assessments of work to be undertaken including regular vehicle and equipment inspections	S-S-SH-D-04_ Occupational and Community Health and Safety Implementation Plan EEC SHERQ requirements for contractors Project work activities	Low	Contractor and Distribution Department	Safety Officer

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
		iii) Train all workers on the requirements of the OHS Plan and Risk Assessment. iv) Verify contractor and worker competency (where required for example, drivers, electrical works, working at height) v) Only allow trained and certified workers to install, maintain, or repair electrical equipment; vi) Switching off, isolation and properly grounding live power distribution lines before work is performed on, or in close proximity, to the lines; vii) Ensuring that live-wire work is conducted by trained workers with strict adherence to specific safety and insulation standards.	conform to all applicable Eswatini law, World Bank Environmental, Health and Safety guidance Labor Management Plan Worker Code of Conduct Q-O-DI-P-02_Depot Projects Procedure EIS-0081_SECIES (SEC Engineering Information and Standards) Standard			

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
		Qualified or trained employees working on transmission or distribution systems should be able to achieve the following: ▪ Distinguish live parts from other parts of the electrical system ▪ Determine the voltage of live parts ▪ Understand the minimum approach distances outlined for specific live line voltages. ▪ Ensure proper use of special safety equipment and procedures when working near or on exposed energized parts of an electrical system.				

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
		viii) Provide adequate PPE to all workers relevant to the task to be undertaken and train workers on the correct use of the PPE. Provide adequate training to all workers to use the PPE provided to them. ix) Provide potable water supply for drinking and washing hands. x) Avoid speeding. xi) Set reasonable tasks targets xii) Hoisting equipment should be properly rated and maintained and hoist operators properly trained; xiii) Safety belts should be of not less than 16 millimeters (mm) (5/8 inch) two-in-one nylon or material of equivalent strength. Rope safety belts should be replaced before signs of				

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
		aging or fraying of fibers become evident. xiv) When operating power tools at height, workers should use a second (backup) safety strap. xv) Signs and other obstructions should be removed from poles or structures prior to undertaking work. xvi) An approved tool bag should be used for raising or lowering tools or materials to workers on structures. xvii) Request the contractor to transport workers, enclosed vehicles adequately fitted with sufficient seats and seatbelts.				

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
		xviii) Require the Contractor not to transport workers and equipment on the same vehicle. xix) Develop a worker Code of Conduct. xx) Task based hazards identification and risk assessment process, safety talk sessions or any platforms to discuss safety and health hazards will be conducted on site.				
Theft, Vandalism, and Security-Related Risks Potential increase in security-related incidents, including theft or damage of property, as well as picketing, strike threats, or obstruction of works. These risks may arise	Medium	i) Ensure that equipment and machinery is adequately stored in a secured area overnight. ii) Provide security if necessary. iii) Ensure workers are paid timely and treated fairly.	S-S-SH-D-04_Occupational and Community Health and Safety Implementation Plan, Code of Conduct	Low	Contractor	Security

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
from tensions between workers, contractors, and community members, or due to inadequate site security and grievance management during construction.		iv) Complies with the requirements as set out in the ESS4 for use of security personnel (paragraph 24 to 26). v) Report incidents of property damage and theft. vi) Ensure workers sign code of conduct with clear sanction for theft and/or mishandling material.				
Community Health and Safety						
Increase in public accidents People from neighboring communities might get injured when they move around the project area which is likely to have excavation and sharp objects. There is also a chance of electrocution.	Medium	i) Communication through community liaisons when stringing activities will take place to ensure children are not playing in the work area. ii) Project sites to be marked off with fencing and signage to prevent people from entering the dangerous sites.	S-S-SH-D-04_ Occupational and Community Health and Safety Implementation Plan	Low	Contractor	Safety Officer

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
		iii) Provide adequate signage. iv) Backfill excavations as soon as reasonably practicable. v) Provide adequate safe access around construction areas. vi) Barricade open excavation. vii) No unauthorized entry to construction site viii) Provide awareness on electricity safety and safe use of solar systems ix)				
Influx and communicable diseases Increase in sexually transmitted diseases and unwanted pregnancies The introduction of the project is likely to bring temporal influx of people into the project area	Medium	i) Roll out of an awareness campaign on HIV/AIDS, GBV, SEA/SH, Road Safety, malaria prevention, sanitation. ii) Provide awareness on sexually transmitted diseases and family planning methods.	S-S-SH-D-04 Occupational and Community Health and Safety Implementation Plan Labor Management Plan	Low	Contractor	Social Officer

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
(construction workers). Social disturbance may arise due to single men working in the area, can lead to promiscuity. Promiscuity can cause problems such as unwanted pregnancies, STI's and HIV/AIDS.		iii) Provide condoms free of charge. iv) Priority should be given to local community members for work. v) Implementation the Project Grievance Mechanism (GM). vi) Bidding documents to reflect the requirements of the ESMP, to cater for GBV and overall ESHS risks vii) Enforce project code of conduct.	Worker Code of Conduct GBV Action Plan			
		i)				
Social Considerations						
Child Labor	Medium	i) Minimum age of project employees eligible for any type of work under the project is set at 18 years. ii) Design and implement HR policies that comply with	Labor Management Plan	Low	Contractor	Social Development Officer

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
		ESwatini's Labor law and ESS2 requirements iii) Ensure that no forced Labor exists in the project by developing terms of reference for all engaged in the project and gathering documents and appropriate proof/evidence. iv) Remove child immediately removed from site, taking into account the best interest of the child. v) Report any form of forced or child labor found in the project to the police as this is a criminal offence vi) Comply with the minimum age requirement including penalties for non-compliance. i) Conduct spot checks and also verify the national identity cards of all employees in the project by ensuring that all contractors submit labor compliance files, which entail all this documentation ii) Conduct Awareness-raising sessions with both the				

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
		contractors and communities to sensitize them on the prohibition and negative impacts of child and forced labor.				
OPERATIONAL AND MAINTENANCE PHASE						
Biodiversity						
Impact on flora During maintenance activities, opening of access roads and bush clearing might result in loss of vegetation.	Low	i) Use existing roads to access power lines for maintenance activities as far as reasonably practicable ii) Limit vegetation clearance to servitude	E-S-SH-P-01-D-04_Vegetation Management Q-O-DI-P-01_Depot Maintenance Procedures	Low	Distribution Department	Environmental Officer
Waste Management						
Increase in waste generation Waste generation is likely during the operation phase. Poor waste management can lead to pollution, injuries to	Medium	vii) Ensure waste disposal receptacles are made available on site for workers. viii) Prohibit littering on site ix) Dispose waste in accordance with relevant waste legislation	E-S-SH-P-05_Waste Handling and Disposal Procedure	Low	Distribution	Environmental Officer

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
public and animal. Waste is a nuisance if not disposed properly. Anticipated waste during this phase includes scrap material (used conductors, wooden poles, bolts & nuts), packaging material and plastics.		and EEC waste handling and disposal procedures iii) Prohibit burning of waste on site				
Soil						
Soil Contamination Hazardous chemicals and other substances can potentially spill on land and cause a negative impact. These include hydrocarbon during transformer leaks refueling of machinery and leakage from vehicles.	Medium	i) Ensure that machinery, equipment and vehicles on site are well maintained, serviced and in good condition ii) In case of spillages, minor spills will be cleaned up by contractor whilst major oil spillages will be remediated in accordance with EEC emergency preparedness and response plan for oil spillages.	SS-SH-M-01_Emergency Preparedness and Response plan	Low	Contractor and Distribution	Environmental Officer

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
		iii) The contractor will be taken through EEC emergency preparedness and response plans which include oil / chemical spill management. x) Oil contaminated soil will be bio-remediated on site by contractor.				
Occupational and Community Health and Safety						
Increase incidents and accidents There is a potential risk of electrocution for both people and livestock.	High	i) Inspect distribution lines on a regular basis to ensure any faults are addressed promptly. ii) Use signs, barriers where applicable to prevent vandalism and access to electrical equipment and education / public outreach to prevent public contact with potentially dangerous equipment. iii) Surround conducting objects (e.g. fences or other metallic	Q-O-DI-P-01_Depot Maintenance Procedures S-S-SH-D-04_ Occupational and Community Health and Safety Implementation Plan	Medium	Distribution Department	Safety Officer

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
		structures) installed near power lines, to prevent shock. iv) Tracking incidents & developing a direct response strategy. v) Inspected the line regularly to ensure it is in a good working condition.				
Fire risk Sparks from damaged or faulty conductors can result in burning of grazing land and nearby residents' properties	Low	i) Ensure power line is well maintained. ii) Ensure that adequate clearance and distance from the line and objects/ structures is maintained. iii) Attend to faults swiftly.	EEC OHS Plan E-S-SH-P-01-D-04_Vegetation Management Q-O-DI-P-01_Depot Maintenance Procedures	Low	Distribution Department	Safety Officer
Increase in occupational accidents There is risk of electrocution to workers conducting maintenance	High	i) Ensure to comply with the EEC OCHSIP for routine maintenance and operations. ii) Prepare a risk assessment for the specific task to undertake.	S-S-SH-D-04_ Occupational and Community Health and Safety Implementation Plan	Medium	Distribution Department	Safety Officer

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
of the high voltage powerline		iii) Obtain the necessary approvals and clearances for work to be conducted.	Q-O-DI-P-01_Depot Maintenance Procedures			

Table 7-2: Description of positive impacts and enhancement measures

Potential impact	Impact rating (before mitigation)	Mitigation/ Enhancements	Implementation Plan/ Procedure	Impact rating (after mitigation)	Implementation Responsibility	Monitoring Responsibility
PRE-CONSTRUCTION AND CONSTRUCTION PHASE						
Socio-economic						
Employment opportunities The upgrading of the line will provide employment opportunities for skilled and unskilled workers. If EEC imports unskilled from outside the community, then	Low	i) Give preference to the communities close to the project. ii) Clearly communicate recruitment process. i) Advertise all positions with clear job requirements ii) Apply non-discriminatory approach when recruiting workers.	SEP Project Labor Management Plan	Medium	Distribution Department Contractor Rural Department	Social Development Officer

animosity towards the project may develop amongst the local community. The hiring of employees if not transparent may also lead to conflict within the community.		iii) Give equal opportunity and fair treatment during employment iv) Comply with the Employment Act requirements on gender equality in the workplace which will include the provision of maternity leave, nursing breaks and sufficient and suitable toilet facilities separate for men and women employees. v) Create an enabling work environment that seeks to address potential sexual exploitation or harassment in the recruitment and retention of skilled and unskilled female employees by applying fair recruitment practices.				
Entrepreneurial opportunities There will be opportunities for selling food and	Medium	i) Source materials and equipment from local suppliers as far as reasonable possible	Q-F-CS-P-05_Supplier and Contractor Registration Procedure	High	Procurement Department	Social Development Officer

other items to workers. The project will procure material and fuel.						
OPERATIONAL PHASE						
Socio-economic						
Improved power supply and security The proposed upgrade to powerlines intends to strengthen the network, ensure reliability of supply and access to electricity.	Medium	i) Monitor and regularly inspect distribution lines and associated equipment to ensure a constant and stable electricity supply	Q-O-DI-P-01_Depot Maintenance Procedures	High	Distribution Department	Social Development Officer
Better development opportunities and service delivery Increased stability of the power supply structure will decrease existing power shortages.	Low	i) Monitor and regularly inspect distribution lines and associated equipment to ensure a constant and stable electricity supply	Q-O-DI-P-01_Depot Maintenance Procedures	Medium	Distribution Department	Social Development Officer

Increased entrepreneurial opportunities/ Business growth There will be opportunities for maintenance contractors and material manufacturers and suppliers, opportunities for manufacturing and other industries to develop in the area	Medium	i) Give preference to local contractors and material manufacturers and supplier	Q-F-CS-P-05_Supplier and Contractor Registration Procedure	High	Procurement Distribution Department	Procurement

7.2 Performance indicators

EEC will systematically monitor and measure environmental and social performance to ensure compliance with project requirements and the effective control of identified risks. Based on the mitigation measures in the ESMP (Tables 6-1 and 6-2), a monitoring plan (Table 6-3) outlines key performance indicators, monitoring frequency, responsible institutions, and estimated implementation costs across the project lifecycle.

Table 7-3: Estimated Monitoring and Mitigation Cost

Impacts	Parameter	Indicator	Monitoring Method	Responsibility	Monitoring	Frequency	Mitigation Hierarchy	Standards of GIIP	Estimated cost (USD)
Depletion Loss/damage of flora and fauna	Visual inspection	○ No sign of soil erosion ○ No unnecessary or accidental damaged vegetation and flora		Contractor / Owner's Engineer		Daily	Avoid unnecessary clearance; Minimize soil disturbance; Restore areas after construction	ISO 14001	34 855,84
Waste (hazardous and general waste)	Visual inspection	○ MSDS for all store chemicals available ○ Chemical usage records available ○ Disposal records available ○ No litter observed		Contractor/ Owner's Engineer		Daily	Minimize waste generation; Restore through recycling/reuse ; Dispose responsibly	WBG EHSG; Basel Convention; ISO 14001	27 892,45

Impacts	Parameter	Indicator	Monitoring Method	Responsibility	Monitoring	Frequency	Mitigation Hierarchy	Standards of GIIP	Estimated cost (USD)
		○ Sufficient waste bins provided and in use							
Access roads creation	Visual inspection	○ Number of new access roads ○ Evidence of rehabilitation of sites used as access roads ○ No signs of soil erosion ○ No signs of excessive dust and noise levels below acceptable limits. ○ Speed limits are enforced and obeyed by workers ○ No deterioration in road quality		Contractor / Owner's Engineer		Daily	Avoid unnecessary roads; Minimize dust/noise; Restore sites post-use	WBG EHS – Construction & Decommissioning; ISO 9001	14 462,24
Soil erosion	Visual inspection	○ No signs of soil erosion ○ No spills or signs of soil contamination ○ No unnecessary or accidental damage to vegetation noted ○ Access roads are maintained		Contractor / Owner's Engineer		Daily	Avoid sensitive slopes; Minimize erosion; Restore topsoil	WBG EHSG;	19 731,12

Impacts	Parameter	Indicator	Monitoring Method	Responsibility	Monitoring	Frequency	Mitigation Hierarchy	Standards of GIIP	Estimated cost (USD)
		○ Preservation of topsoil and re-spreading after construction as a basis for successful rehabilitation							
Noise	Noise monitoring	○ No excessive noise on site ○ No noise complaints received ○ Record of equipment maintenance up to date an in place ○ Restricted construction activity at night		Contractor / Owner's Engineer		Daily	Minimize noise via equipment and scheduling	WBG EHSG WHO Noise Standards	14 865,56
Air quality	Dust monitoring	○ No excessive dust emissions visible ○ No dust related complaints received ○ Dust suppression implemented on a regular basis ○ Sufficient dust suppression capacity to		Contractor / Owner's Engineer		Daily	Minimize emissions/dust; Restore vegetation cover	WBG EHSG; WHO Ambient Air	8 315,05

Impacts	Parameter	Indicator	Monitoring Method	Responsibility	Monitoring	Frequency	Mitigation Hierarchy	Standards of GIIP	Estimated cost (USD)
		work at more than one site at a time							
Change in aesthetic value of landscape	Site inspection	○ Minimal disturbance landscape		Contractor / Owner's Engineer		Daily	Minimize visual disturbance; Restore landscape		3 356,81
Surface water	Site inspection	○ No visible change in water quality observed ○ No sign of spillages of chemicals or hydrocarbon ○ Spillages promptly remediated		Contractor / Owner's Engineer		Daily	Avoid direct discharges; Minimize contamination; Restore spill sites	WBG EHSG WHO Water Standards	6 973,11
Damage to private property crops, fields	Inspections	○ No Complaints ○ No Damaged crops ○ Landowner consent signed and in place		Contractor / Owner's Engineer		Daily	Avoid unnecessary land use; Compensate for damages; Restore access	ESS Land Acquisition & Livelihoods	79 462,24

Impacts	Parameter	Indicator	Monitoring Method	Responsibility	Monitoring	Frequency	Mitigation Hierarchy	Standards of GIIP	Estimated cost (USD)
Community Health (HIV/AIDS, , STIs, Cholera), livestock and Safety	Inspections	○ No accidents involving project vehicles ○ Community Health and Safety Plan approved by project manager ○ All employees on site inducted ○ All employees on site provided with infectious/communicable disease (, HIV/AIDS, STIs, Cholera etc) training		Contractor / Owner's Engineer		Daily	Avoid unsafe practices; Minimize risks with training; Restore health through awareness Advise communities about construction hazards, Hold safety talks at local schools, cordon off work areas, clearly mark trenches with danger tape and closed as quickly as possible, have traffic wardens at busy	WBG EHSG – Community Health & Safety; WHO & ILO Standards	69 731,12

Impacts	Parameter	Indicator	Monitoring Method	Responsibility	Monitoring	Frequency	Mitigation Hierarchy	Standards of GIIP	Estimated cost (USD)
							construction intersections, implement other measures determined by site conditions and other related plans like Traffic Management plan.		
Community complaints	Community consultations	○ Grievance management and record resolution process in place ○ Evidence of occurrence/event report ○ Maintenance of complaints log and resolution process and evidence of grievance mechanism ○ Grievances closed out adequately and in time		Contractor / Owner's Engineer		Daily	Minimize conflicts; Restore trust with grievance redress	Stakeholder Engagement	69 731,12

Impacts	Parameter	Indicator	Monitoring Method	Responsibility	Monitoring	Frequency	Mitigation Hierarchy	Standards of GIIP	Estimated cost (USD)
Grievance from Gender-based Violence (GBV)	Community member/worker complaints	○ Number of employees trained on GBV ○ Number of grievances received		Contractor / Owner's Engineer		Daily	Avoid harassment through policy; Minimize risks with awareness; Restore dignity via support services	IFC/EBRD GBV Good Practice Note; ILO Conventions	7 465,65
Occupational Health and Safety	Inspections Incident investigation reports	○ Health and safety records up to date and in place ○ Induction records up to date and in place ○ Number of training and toolbox talks conducted ○ Number of inspections and audits completed Number of Near misses, MTC, FTC, Traffic incidents and fatalities ○ Incidents investigated and closed out within 10 working days		Contractor / Owner's Engineer		Daily	Avoid unsafe work; Minimize risks with PPE/training; Restore post-incident; Compensate victims	WBG EHSG Occupational Health & Safety; ILO OSH Standards; ISO 45001	90 948,40

Impacts	Parameter	Indicator	Monitoring Method	Responsibility	Monitoring	Frequency	Mitigation Hierarchy	Standards of GIIP	Estimated cost (USD)
		○ Disciplinary records available ○ Worker grievance records and resolution in place and up to date							
Inequality and discrimination against women and vulnerable groups	Inspections Document review Community member/worker complaints	○ Total number of employees, women, people with disabilities, poor of the poorest, LGTBI		Contractor / Owner's Engineer		Daily	Avoid discriminatory practices; Minimize barriers; Restore equality via inclusion	ILO Conventions	4 465,65
TOTAL									**452256,36**

7.3 Occupational Health and Safety Guidelines

The Occupational and Community Health and Safety Implementation Plan (S-S-SH-D-04_ OCHSIP) will be applicable to this project in addition to the requirements set out in the ESMP. The OCHSIP provides the minimum OHS requirements for workers and community safety, that the contractor will need to follow during the implementation of the project and will form part of the bidding documents. The contractor will be required to implement this plan prior to start of construction and include its requirements into their Safety and Health Plans.

7.4 Labor Management Plan

The LMP sets out the Project's approach to meeting national requirements as well as the objectives of the World Bank's Environmental and Social Framework, specifically objectives of Environmental and Socials Standard 2: Labor and Working Conditions (ESS2) and applicable provisions of Standard 4: Community Health and Safety (ESS4). The LMP (Appendix 3) will be applicable to all work-related aspects of the project, including all direct workers, community workers, workers engaged under contractors, subcontractors and primary suppliers, and to all contractors, subcontractors, and primary suppliers.

7.5 Construction Environmental and Social Management Plan

The Contractor (and sub-contractors) will need to adopt this ESMP, LMP and OCHSIP and separately prepare a comprehensive Construction Environment and Social Management Plan (CESMP) and OHS Plan that will provide a detailed explanation of how the contractor will comply with the Environmental, Social, Health and Safety requirements and demonstrate that sufficient funds are budgeted for that purpose and sufficient capacity is in place to oversee, monitor and report on CESMP and OHS performance.

8 ENVIRONMENTAL AND SOCIAL RESPONSIBILITIES, SCREENING, SUPERVISION, MONITORING AND REPORTING

8.1 Roles and Responsibilities

Effective implementation of the ESMF requires clearly defined roles among the institutions involved in the ASCENT Project. The project is implemented by the Eswatini Electricity Company (EEC) through a dedicated Project Implementation Unit (PIU), under the oversight of the Ministry of Natural Resources and Energy (MNRE) as the borrower.

Table 8-1: Roles and Responsibilities

ENTITY	RESPONSIBILITIES
World Bank	• Provides oversight and technical support during implementation. • Conducts supervision missions and reviews project E&S performance. • Reviews E&S reports and verifies compliance with the Environmental and Social Standards (ESSs).
Ministry of Natural Resources and Energy (MNRE)	• Acts as the borrower and is responsible for overall project oversight and coordination. • Ensures compliance with national and World Bank reporting obligations. • Supports policy-level engagement on safeguards, land access, and stakeholder issues.
Eswatini Electricity Company (EEC) – Project Implementation Unit (PIU)	• Responsible for the day-to-day implementation of project components. • Coordinates technical teams, contractors, and consultants to ensure effective delivery. • Oversees the application of ESMF procedures, including screening, ESMP preparation, and monitoring. • The PIU includes experts seconded from across EEC departments, including R&D, Operations, and SHERQ.
SHERQ Department (Environment and Social Officers)	• Provides technical E&S support to the PIU. • Seconded E&S officers operate within the PIU structure but maintain a functional reporting line to SHERQ. • Responsible for: • Leading environmental and social screening of subprojects. • Reviewing and monitoring contractor compliance with ESMPs. • Supporting stakeholder engagement, grievance management, and incident reporting. • Ensuring alignment with national regulations and World Bank ESF requirements. • SHERQ also provides backstopping and quality assurance to ensure EEC-wide safeguards consistency.

ENTITY	RESPONSIBILITIES
Supervising Engineers / Owner's Engineer	• Monitor and report on contractor performance, including compliance with environmental and social measures. • Coordinate with the PIU and SHERQ on technical and safeguard compliance during construction. • Raise non-compliance issues for corrective action.
Contractors and Subcontractors	• Responsible for implementing mitigation measures in the site-specific ESMPs. • Must comply with environmental and social provisions in their contracts. • Required to designate E&S focal persons and submit monthly performance reports.
Relevant regulatory and local governance authorities	• Local authorities support project implementation by providing guidance on compliance with local E&S regulations. • They participate in screening, permitting, and monitoring processes, and help facilitate stakeholder engagement and grievance resolution at the community level.

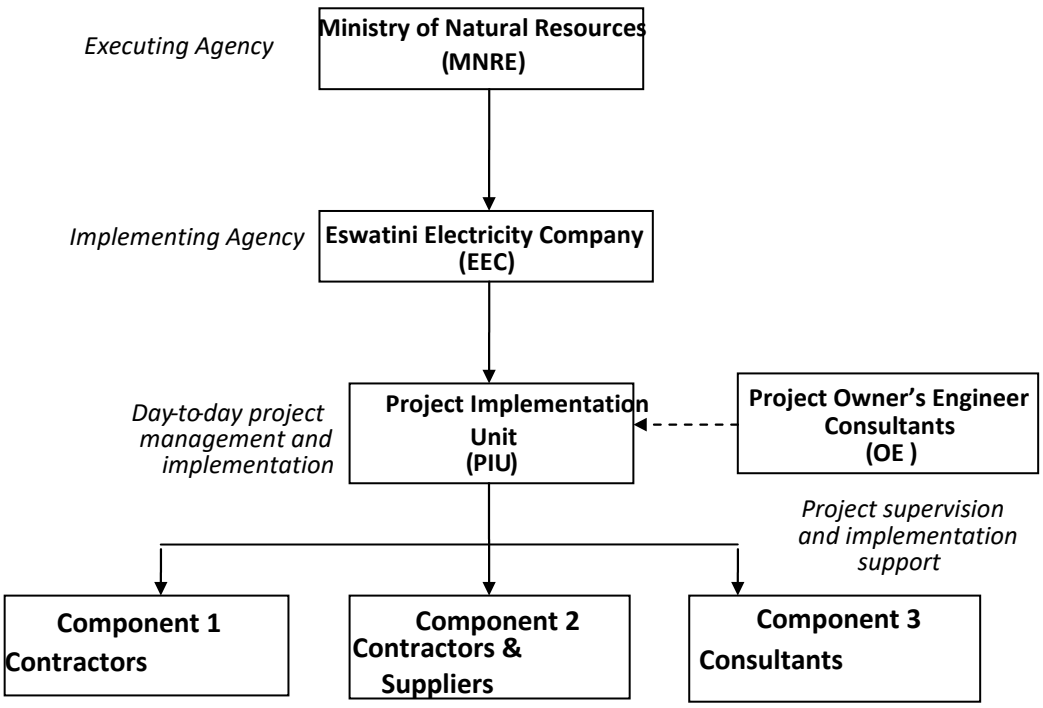

Figure 8-1: Project Organizational Structure

8.1.1 Project Steering Committee

The PSC will provide overall policy direction and ensure strategic coordination for the project, including oversight of environmental and social (E&S) risk management. It will review progress on the implementation of the Environmental and Social Management Framework (ESMF), ensure alignment with national and World Bank ESS, and address any significant E&S issues escalated by the Project Implementation Unit (PIU).

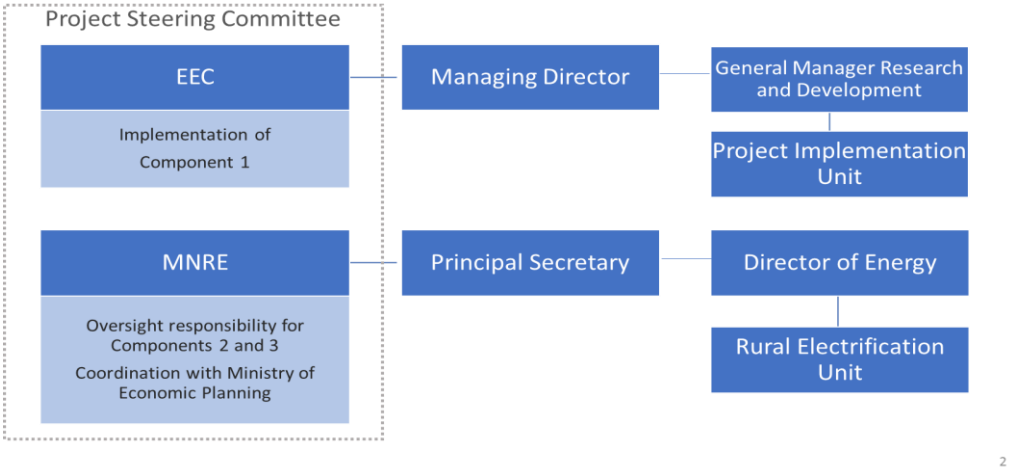

Figure 8-2: Project Steering Committee

8.1.2 The Project Implementation Unit

The PIU at EEC will be under the oversight of the General Manager, Research and Development as shown in Figure 7-2. Environmental and social compliance and reporting for the Project will be the responsibility of dedicated staff from the EEC SHERQ and Research and Development department, who shall for purposes of this project work in close collaboration with the PIU Project Manager. For activities related to Component 2 and 3, the PIU shall coordinate closely with the Director of Energy – MNRE, and the Rural Electrification Unit – MNRE to ensure implementation progress and support of the PIU is as necessary.

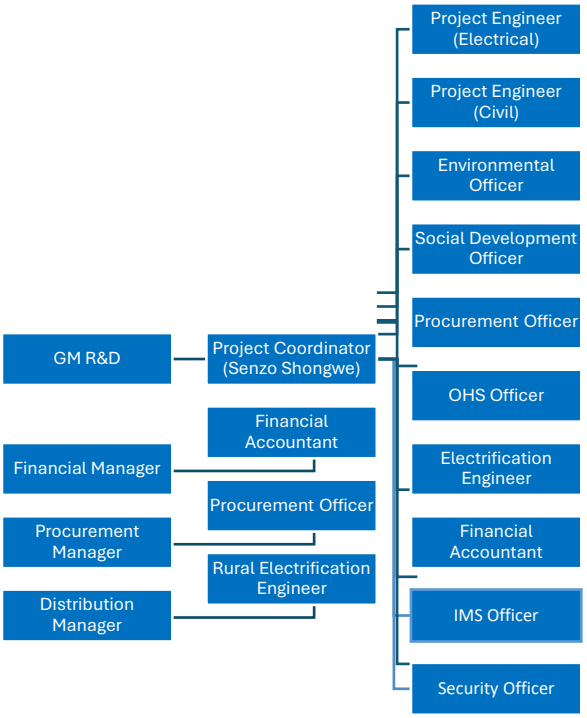

Figure 8-3 PIU Structure

The PIU roles and responsibilities are presented in the table 6 - 2 below.

PIU Member	Responsibilities
Project Coordinator	• Overall responsibility for implementation of the project. • Ensure coordination across technical and E&S team • Responsible for the day-to-day management of all project activities • Acts as the main liaison with MNRE and the World Bank and ensures compliance with project plans, including the ESMF and ESCP.
Financial Accountant	• Manages project budgeting, disbursement, and financial reporting. • Ensures that adequate funds are allocated for E&S activities and that financial records meet World Bank requirements.
Project Engineers (Electrical, Civil)	• Oversees the technical planning and execution of infrastructure works. • Ensures that engineering designs and construction activities integrate and comply with environmental and social requirements outlined in the ESMF and ESMPs.
Environmental Officer	• Lead the implementation of environmental standards, including screening, ESMP preparation, site monitoring, and reporting. • Ensures compliance with national regulations and World Bank environmental standards throughout the project lifecycle. • Ensures alignment with ESS1, ESS3, ESS6, ESS8 and ESS10.

PIU Member	Responsibilities
Social Development Officer	• Oversees the implementation of social standards, including stakeholder engagement, grievance management, land access support, and monitoring of social risks. • Ensures alignment with ESS2, ESS4, ESS5, and ESS10.
OHS Officer	• Ensures occupational health and safety compliance across all project sites. • Monitors contractor safety performance and enforces mitigation measures in line with national laws and ESS2 and WBG EHS guideline requirements.
IMS Officer	• Ensures alignment of project activities with EEC's Integrated Management Systems, including quality, environment, and safety standards. • Supports documentation control, and continual improvement in line with ISO and ESF requirements. • Conduct internal compliance audits as per EEC internal procedure.
Security Officer	• Manages site security and supports implementation of measures to prevent and respond to security risks affecting workers and communities. • Ensures alignment with ESS4, including protocols for managing security personnel and community safety.
Community Liaison Officer (CLO)	• Act as the first point of contact between the project and local communities. • Support stakeholder engagement, grievance resolution, community awareness activities, and feedback gathering. • Work closely with the Social Development Officer to ensure effective communication and inclusion of affected persons.
Procurement Officer	• Oversees procurement processes in line with World Bank guidelines. • Ensures that environmental and social requirements are properly integrated into bidding documents and contractor agreements.
Distribution Engineer	• Responsible for the planning, scheduling and execution of the electricity access to households in the country under the project in collaboration with the MNRE Energy Department's Rural Electrification Unit
Owner's Engineer (OE)	• Provides independent oversight of construction activities, ensuring technical quality and contractor compliance with environmental and social commitments. • Supports the PIU in supervision, documentation, and performance verification.

8.1.3 Independent E&S 3rd Party Monitoring

An independent third-party monitor will be engaged to assess Environmental & Social compliance, verify implementation of mitigation measures, and provide objective feedback to the PIU and stakeholders. Findings will inform corrective actions and be reflected in project progress reports.

8.1.4 SHERQ department

The SHERQ Department provides key specialists (environmental, social, safety, IMS, and security) to the PIU and ensures technical support and oversight. It ensures project alignment with organizational SHERQ standards and regulatory compliance.

8.2 Supervision, monitoring and reporting

This section outlines how environmental and social (E&S) compliance will be tracked throughout project implementation to ensure adherence to the ESMF, Environmental and Social Standards (ESS), and national regulations.

8.2.1 Supervision

Supervision refers to the routine oversight of environmental and social risk management activities during project planning, construction, and operation. It ensures that mitigation measures are implemented effectively and that corrective actions are taken where needed.

Key responsibilities include:

- PIU SHERQ Specialists (Environmental, Social, Safety, IMS, Security Officers) will lead day-to-day supervision on site, checking compliance with the Environmental and Social Management Plans (ESMPs).
- Supervising Engineers and the Owner's Engineer will support technical oversight, including contractor performance and adherence to E&S requirements.
- Contractors will conduct self-supervision and submit E&S compliance reports to the OE and PIU.
- The SHERQ Department may conduct audits or oversight visits to reinforce institutional accountability.
- The Independent Monitor will provide periodic third-party verification of compliance and recommend improvements.

- Relevant regulatory and governance authorities may conduct independent inspections or site visits, as required.

8.2.2 Monitoring

Monitoring involves systematic collection of data and evidence to assess the effectiveness of environmental and social mitigation measures, track project impacts, and ensure compliance with the ESMF, ESMPs, and relevant standards.

Key elements of the monitoring process include:

a) Routine Monitoring

Conducted by the PIU SHERQ Specialists and Owners Engineer, this includes site inspections, checklists, photo logs, and tracking of environmental, health, safety, and social indicators during project activities. Contractor also undertakes monitoring as a basis for verifying compliance with environmental and social obligations and submits evidence to the OE/PIU.

b) Independent Monitoring

The Third-Party Monitor will carry out periodic assessments to validate PIU reports, evaluate performance, and identify potential gaps or risks. Findings may be used to trigger corrective actions or mid-course adjustments.

c) Monitoring Indicators

Indicators will be defined in the ESMP and may include parameters such as dust levels, waste management, water quality, occupational incidents, community complaints, and contractor compliance (as described in Table 6-3).

8.3 Screening Process, Impact and Risk Approach

Screening commences with the submission of the proposed project's scope/description, map(s) and bill of quantities/estimated project costs by the sub-project proponent to the environmental Officer. The officer conducts a desktop review of the proposed sub-project, including its location, activities, and available designs. This is followed by a field-based initial screening using the Environmental and Social Impact Assessment Procedure (E-S-SH-P-06) and the Screening Checklist (E-S-SH-P-06-F-01).

The screening identifies potential environmental and social (E&S) risks and determines whether the project requires internal or external authorization in line with the waiver from the EEA (see Appendix 4). Where internal authorization suffices i.e., if the sub-project is under 12 km and is unlikely to result in significant or unmanageable E&S risks, appropriate mitigation measures are recommended in an Internal Environmental Clearance Certificate. Where further studies are required, external authorization will be sought in accordance with the Environmental Assessment Regulations (2022).

9 ASSESSMENT OF INSTITUTIONAL CAPACITY TO IMPLEMENT THE ESMF

The Ministry of Natural Resources and Energy (MNRE), through the PIU hosted by EEC, will oversee the implementation, monitoring, and reporting of the project's environmental and social (E&S) performance. Eswatini has a strong legal framework for environmental and social management, anchored by the Environment Management Act, 2002, which promotes sustainable development by integrating E&S considerations into project planning and execution. The Eswatini Environment Authority (EEA) will review project briefs and may grant waivers for rural electrification projects, where applicable.

9.1 Capacity Building

Ongoing capacity building is essential to ensure that EEC's PIU and contractors can effectively implement the ESMF and related E&S instruments in line with World Bank requirements. Institutional strengthening, hands-on support, and structured training programs are needed to build familiarity with safeguards standards and their practical application.

9.2 Capacity Building Needs

Ongoing capacity building is essential to ensure that EEC's PIU and contractors can effectively implement the ESMF and related E&S instruments in line with World Bank requirements. Institutional strengthening, hands-on support, and structured training programs are needed to build familiarity with safeguards standards and their practical application.

9.3 Target Groups for Capacity Building

Table 9-1: Target groups for capacity building

TARGET GROUP	PURPOSE OF CAPACITY BUILDING
SHERQ Department	As focal point for E&S implementation, SHERQ will lead training efforts and must be proficient in screening, risk identification, and applying instruments like ESMF, ESMPs, SEP, LMP, GRM, and OCHSIP.
PIU Staff	Staff involved in planning, design, and supervision will be trained by SHERQ to integrate E&S safeguards into subproject screening, planning, field monitoring, and reporting.
Contractors	Will be trained on implementing site-specific ESMPs, OHS plans, LMP, and code of conduct. SHERQ/PIU will ensure contractor teams are well-informed and compliant with the ESS.

TARGET GROUP	PURPOSE OF CAPACITY BUILDING
Local Authorities (e.g., Regional Administrators, Inner Councils)	Will be engaged and sensitized on E&S risks and mitigation measures through PIU-led consultations and awareness-raising efforts.

9.4 Implementation Support

The EEC PIU and MNRE may require on-the-job training and advisory support throughout the project. To strengthen capacity, qualified Independent Consultants will be engaged to:

- Support review of subproject-specific E&S instruments.
- Design and deliver tailored training and mentorship.
- Advise on reporting systems and quality control.
- Strengthen grievance redress systems.
- Monitor contractor compliance with E&S requirements.
- Assist with field visits, workshops, and support missions.

9.5 Training Schedule

The SHERQ department, in coordination with the PIU, will deliver targeted training to contractors, project workers, and relevant EEC staff to ensure compliance with environmental and social requirements. The training will be delivered at key stages of the project and aligned with the World Bank's Environmental and Social Framework (ESF).

A detailed training schedule outlining the topics, target stakeholders, and timing is provided in Table 8-2 and will be reviewed and updated regularly based on implementation needs and site conditions.

Table 9-2 Proposed training plan for the ASCENT

Training Topic	Target Stakeholders	Timing
Environmental and Social Management Framework (ESMF) and Related Instruments (e.g. ESMP, SEP, LMP, GRM)	EEC PIU staff, SHERQ officers, and Community Liaison Officers (CLOs)	Mostly prior to start of construction and regularly during construction, with training focussed on specific risks for workers involved in particular tasks
World Bank Environmental and Social Standards (ESS1–10)	EEC PIU, MNRE technical units, and relevant supporting departments	Throughout project implementation (refresher sessions as needed)

Training Topic	Target Stakeholders	Timing
Labor Management Procedures, GBV/SEA Action Plan, Worker Grievance Mechanism, and Code of Conduct	Contractors, subcontractors, primary suppliers, project workers (including community workers and CLOs)	Before mobilization to site
Environmental, Social, Health and Safety (ESHS) Standards and Community Engagement Protocols	Contractors, subcontractors, and field workers (including CLOs)	After call for proposals and before field deployment
Occupational and Community Health and Safety Plan (OCHSIP) Implementation	Contractors, subcontractors, project workers, and site supervisors	Prior to the start of construction works

10 IMPLEMENTATION BUDGET

The cost of implementing the E&S activities will be funded from the Borrower's contribution budgeted at USD 5 000,000. Breakdown of the budget is presented in Table 9-1 below:

Table 10-1 Indicative budgetary items

	Indicative Budgetary Items	Total Cost (USD
1.	Awareness training and capacity building	34 914,01
2.	Stakeholder Engagement	139 656,03
3.	Implementation of ESMP	642 599,42
4.	Social Aspects	100 000,00
4.1	Accidental damage to property, crops	81 462,24
4.1	Community Health and Safety	69 731,12
5.	Occupational Health and Safety	90 948,4
6	Third Party Monitor	205 503,84
	Sub-total	1 364 815,06
	Total plus 10% contingency	1 501 296,56

The budget covers costs of technical assistance related to the implementation of the environmental and social instruments, including various capacity building initiatives and monitoring of the ESMP, LMP, GM, and HS for sub-projects. The costs will be considered an integral part of Project and will be included in the budgets of individual sub-projects. The cost estimates shall make adequate provision for monitoring and supervision and for contingencies. EEC has appointed a Third-party monitoring agency and has manpower and technical resources from the PIU to ensure that all environmental and social risks are addressed in full compliance with the requirements of national laws and the provisions of the World Bank Environmental and Social Framework as articulated in the ESCP and other projects. The costs associated with the resources from the EEC SHERQ department has not been included in this budget as it is accounted for in the overall project cost.

11 STAKEHOLDER ENGAGEMENT, DISCLOSURE, AND CONSULTATIONS

Stakeholder engagement is a core requirement under ESS10 of the World Bank's Environmental and Social Framework (ESF). It ensures that the views, concerns, and feedback of stakeholders are integrated into project planning, risk management, and decision-making.

11.1 Summary of Stakeholder Engagement Process

During project preparation, key stakeholders were consulted, including community leaders, local government representatives, and sector agencies. These consultations helped identify potential environmental and social risks and shaped mitigation measures.

A detailed Stakeholder Engagement Plan (SEP) has been prepared and will guide engagement throughout implementation.

11.2 Ongoing Engagement and Disclosure

Stakeholder engagement will continue throughout project implementation, including regular community meetings, updates through local government offices, and public disclosure via media, notice boards, and the EEC website.

Key documents such as the ESMF, ESMPs, and SEP will be made publicly available in appropriate languages and formats.

11.3 SEP Roles and Responsibilities

The PIU will oversee implementation of the SEP, with the Social Development Officer (SDO) responsible for leading engagement activities and grievance management. The Community Liaison Officers (CLOs), reporting to the SDO, will serve as field-level points of contact for communities.

11.4 Grievance Mechanisms

Grievance mechanisms have been established to address concerns from both the public and project worker, see SEP in Appendix 5. These ensure that complaints are managed fairly, transparently, and without retaliation, in line with ESS2 and ESS10.

The following outlines the simplified grievance redress pathway:

Table 11-1: Simplified grievance pathway

Stage	Level	Responsible	Timeline
1	Immediate/On-site	CLO / Contractor Supervisor	Within 48 hours
2	Project Level	Social Development Officer	Within 7–14 days
3	EEC Level	Grievance Committee	Within 1 month
4	Escalation	MNRE / Ombudsman / Courts	As needed

11.5 Worker-Specific Grievance Mechanism

A separate grievance mechanism for project workers is required under ESS2. Contractors must establish a functional system for their employees, which includes anonymous reporting, a complaint register, and time-bound resolution. The system will be monitored by the Social Development Officer and Owner's Engineer.

11.6 Monitoring and Reporting

The PIU will track all grievances through a centralized grievance log. Monthly summaries and quarterly reports will be submitted to MNRE and the World Bank, including trends, resolutions, and outstanding issues.

12 BIBLIOGRAPHY

1. BirdLife International. (2025, June 15). *Country Fact Sheet, Eswatini*. Retrieved from datazone.birdlife.org: https://datazone.birdlife.org/country/factsheet/eswatini
2. Dlamini, T. (2002). *State of forest and tree genetic resources in Swaziland. Prepared for the SADC Regional Workshop on forest and tree genetic resources.* Rome: FAO.
3. International Union for Conservation of Nature (IUCN). (2025, June 15). *IUCN Red Data List*. Retrieved from iucnredlist: www.iucnrelist.org
4. Loffler, L. &. (2005). *Swaziland Tree Atlas—including selected shrubs and climbers. Southern African Botanical Diversity Network Report No. 38.* Pretoria: SABONET.
5. Masson, J. R. (2025, June 17). *The Information Architects of Encyclopaedia Britannica.* Retrieved from Encyclopedia Britannica: https://www.britannica.com/facts/Eswatini
6. Swaziland Environment Authority. (2009). *Swaziland's Fourth National Report to the Convention on Biological Diversity.*
7. Swaziland Environment Authority. (2016). *Swaziland's Second National Biodiversity Strategy and Action Plan.*

13 APPENDICES

Appendix 1: Map of Imiphakatsi within Each Depot Boundary

Appendix 2: GBV/SEA/SH Action Plan

Appendix 3: Labor Management Plan (LMP)

Appendix 4: Waiver from EEA

Appendix 5: Stakeholder Engagement Plan (SEP)

Appendix 6: Procedures relevant to ASCENT

a. Environmental and Social Impact Assessment Procedure
b. Environmental Screening Procedure
c. Occupational and Community Health and Safety Implementation Plan (OCHSIP)
d. Grievance Redress Mechanism (GRM)
e. Waste Handling and Disposal Procedure
f. Vegetation Management Guideline
g. Chance Find Procedure