

REPUBLIC OF SIERRA LEONE



**MINISTRY OF COMMUNICATION, TECHNOLOGY AND
INNOVATION (MoCTI)**

**DIGITAL TRANSFORMATION FOR AFRICA/WESTERN AFRICA
REGIONAL DIGITAL INTEGRATION PROGRAM – SERIES OF
PROJECTS 2 (WARDIP SOP2)
(P500628)**

**ENVIRONMENTAL AND SOCIAL MANAGEMENT
FRAMEWORK(ESMF)**

**WITH ANNEXES ON LABOR MANAGEMENT
PROCEDURES (LMP) AND RESETTLEMENT
FRAMEWORK (RF)**

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Abbreviations and Acronyms

AfCFTA	African Continental Free Trade Area
AFW	Africa West
AMF	Autorités des Marchés Financiers (WAEMU Regional capital markets supervisor)
ANIP	Agence Nationale pour l'Identification des Personnes (National Agency for the Identification of Persons in Benin)
ARCEP	Autorité de Régulation des Communications Électroniques et des Postes (Regulatory authority for electronic communications and postal services in Benin)
ASIN	Agence des Systèmes d'Information et du Numérique (Agency for Information Systems and Digitalization in Benin)
AU	African Union
BRVM	Bourse Regionale des Valeurs Mobilières (WAEMU Regional Stock Exchange)
CERC	Contingent Emergency Response Component
CCAP	World Bank Group Climate Change Action Plan
CCDR	Country Climate and Development Report
CDD	Customer Due Diligence
CIO	Chief Information Officer
CPF	Country Partnership Framework
CPSD	Country Private Sector Diagnostic
CSIRT	Computer Security Incident Response Team
DFS	Digital Financial Services
DTfA	Digital Transformation for Africa
ECOWAS	Economic Community of West African States
EIB	European Investment Bank
ESCP	Environmental and Social Commitment Plan
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ESRS	Environmental and Social Review Summary
EU	European Union
FAGACE	African Guarantee and Economic Cooperation Fund
FATF	Financial Action Task Force
FCS	Fragile and Conflict Affected Situations
FCV	Fragility, Conflict and Violence
FIRST	Forum of Incident Response and Security Teams
FPS	Fast Payment System
FTTX	Fiber to the X
GBV	Gender-Based Violence
GCP	Global Challenges Program
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GNI	Gross National Income
GRS	Grievance Redress Service
HCI	Human Capital Index
HEIS	Hands-on Expanded Implementation Support

ICANN	Internet Corporation for Assigned Names and Numbers
IDA	International Development Association
IBRD	International Bank for Reconstruction and Development
ICTP	Information and Communications Technology Policy
IDP	Intelligent Document Processing
IFC	International Finance Corporation
IMF	International Monetary Fund
IPF	Investment Project Financing
IXP	Internet Exchange Point
JCAP	Joint Capital Markets Program
JRC	Joint Research Centre (European Commission)
LEO	Low Earth Orbit (satellite)
LMP	Labor Management Procedures
LRREN	Liberia Research and Education Network
M&E	Monitoring and Evaluation
MDAs	Ministries, Departments, and Agencies
MFD	Maximizing Finance for Development
MIS	Mutualized Information and Management System
MIGA	Multilateral Investment Guarantee Agency
MMO	Mobile Money Operator
MoPT	Ministry of Post and Telecommunications
MND	Ministère du Numérique et de la Digitalisation (Ministry of Digital Economy - Benin)
MoU	Memorandum of Understanding
MPA	Multiphase Programmatic Approach
MSME	Micro, Small, and Medium Enterprises
NAP	National Adaptation Plan
NDC	Nationally Determined Contributions
ND-GAIN	Notre Dame Global Adaptation Initiative Index
Index	
NRENs	National Research and Education Networks
NRPP	National Registry of Physical Persons (Benin)
NPI	<i>Numéro d'Identification Personnel</i> (Unique ID Number in Benin)
PBCs	Performance-Based Conditions
PCM	Private Capital Mobilization
PDO	Project Development Objective
PCE	Private Capital Enabling
PCU	Project Coordinating Unit
PIU	Project Implementation Unit
PKI	Public Key Infrastructure
PPP	Purchasing Power Parity
PPP	Public-Private Partnership
PSC	Project Steering Committee
PSW	Private Sector Window
PTC	Project Technical Committee
PWD	People With Disabilities
SME	Small and Medium Enterprises
RECs	Regional Economic Communities
SAA	Smart Africa Alliance

SDM	Single Digital Market
SEP	Stakeholder Engagement Plan
SOP	Series of Projects
SPV	Special Purpose Vehicle
TLD	Top-Level Domain
UAF	Universal Access Fund
WAEMU	West African Economic and Monetary Union
WACS	West Africa Cable System
WACREN	Western and Central Africa Research and Education Network
WARCIP	West Africa Regional Communications Infrastructure Project
WBG	World Bank Group
WTO	World Trade Organization
WURI	West Africa Unique Identification for Regional Integration and Inclusion

Executive Summary

The World Bank will be supporting Ministry of Communications Technology and Innovation (MoCTI) in implementing the Western African Regional Digital Integration Project. The proposed project (WARDIP-SOP2 or WARDIP2) is the second phase of a Series of Projects (SOP). The proposed Phase 2 will cover Benin, Liberia, and Sierra Leone, and will support the West African Economic and Monetary Union (WAEMU). All components include a menu of activities defined in the WARDIP umbrella Program from which Sierra Leone have selected activities to be implemented under SOP2, based on their most pressing needs and their regional interactions. The SOP2 development objectives (PDO) are to increase broadband access, financing, and usage in participating countries and to advance the integration of digital markets in Western Africa.

Project Description in Sierra Leone

The potential sub-projects in Sierra Leone are as follows:

- Strengthening the regulatory framework to ensure open access for new submarine cables and landing infrastructure.
- Design, financing, and deployment of a new international submarine cable system and construction of a new open-access cable landing station in Sierra Leone.
- Landfall and near-shore work using trenching or horizontal directional drilling for safe cable entry and protection.
- Terrestrial backhaul installation to connect the landing station to the national fiber-optic backbone and core nodes.
- Strengthening the regulatory framework to ensure open access for new submarine cables and landing infrastructure.
- Design, financing, and deployment of a new international submarine cable system and construction of a new open-access cable landing station in Sierra Leone.
- Landfall and near-shore work using trenching or horizontal directional drilling for safe cable entry and protection.
- Terrestrials backhaul installation to connect the landing station to the national fiber-optic backbone and core nodes.
- Feasibility and Technical Assistance studies in this sector

Purpose and Scope of ESMF

The project activities will take place in Sierra Leone, but the specific locations of subproject activities are not known at this stage. Feasibility studies are being conducted by the project, and the design of the proposed submarine cable systems and associated cable landing station (CLS) will incorporate low carbon and climate resilience measures to reduce GHG emissions and mitigate climate-related risks. Where technically feasible and financially viable, the cable system¹ will be based on energy-efficient technologies that meet or exceed the current industry energy standards. Since the exact locations and designs of these subprojects are not yet defined, this Environmental and Social Management Framework (ESMF) provides

¹ The cable landing stations to be built will be EDGE green building-certified, ensuring its energy-efficiency.

the procedures and tools to identify, assess, and manage potential environmental and social (E&S) risks once detailed information becomes available.

The ESMF presents the process for screening subprojects, determining risk levels, and preparing appropriate instruments such as Environmental and Social Impact Assessments (ESIAs), Environmental and Social Management Plans (ESMPs), Resettlement Plans (RPs), and Electronic Waste Management Plans (EWMPs). It also defines institutional responsibilities, capacity-building measures, and monitoring arrangements to ensure compliance with Sierra Leone’s environmental laws and the World Bank’s Environmental and Social Framework (ESF)

Environmental and Social Baseline Conditions

The baseline environmental and social description of Sierra Leone, and more specifically, the Western Area and territorial waters of the country, which is the project footprint has been provided as part of the ESMF. The local climate is tropical, with coastal areas having hot and humid weather and inland areas having a more temperate climate with an average annual temperature is 26.7°C. Support to Sierra Leone principally takes the form of installation of submarine cables from a main trunk in the ocean, with a branch point of some 158 km offshore (marine section) and support infrastructures for the terrestrial segment which include a Beach manhole (BMH) and Cable Landing Station (CLS) expected to be limited to a maximum of a few kilometers (less than 2 km). The vast majority of the cable installation footprint about 99% is offshore, with only about 1% on land for the supporting infrastructure.

The Western Area Peninsula National Park located south of Freetown covers approximately 17,000 hectares of closed forest and hilly terrain. The Park is a critical ecological and cultural asset for Sierra Leone, supporting a vast array of biodiversity and providing essential ecosystem services to the Freetown and surrounding communities.

There are four main estuarine systems designated as Marine Protected Areas (MPAs), recognized under national law, and are managed through Community Management Associations (CMAs), This includes: (i) Sierra Leone River Estuary located near Freetown and covers over 259,000 ha, and designated as a Ramsar Wetland (ii) Scarcies River Estuary located at Kambia District, northern Sierra Leone and has extensive mangrove forests of over 34,000 ha with nursery grounds for fish and crustaceans (iii) Sherbro River System located at Bonthe District, southern Sierra Leone and has a large mangrove areas of over 99,000 ha and supports shrimp, fish, and bird populations and sea turtle nesting areas and the (iv) Yawri Ba located at the Western Rural and Moyamba District. It contains over 24,000 mangrove swamps mudflats, and sandflats which are important for fish breeding and migratory birds. Sierra Leone’s waters are endowed with an abundant range of species that include marine tropical finfish, mollusks, and crustaceans. Some 200 species of fish have been identified in the country’s EEZ, about 100 of which are relatively common and commercially exploited.

Sierra Leone is extremely vulnerable to climate change due to a combination of heightened exposure and limited adaptive capacity. Wetlands, including mangroves and estuarine ecosystems, provide critical ecosystem services (such as coastal protection, biodiversity support, and water filtration) while also helping to mitigate climate change by sequestering large amounts of carbon. However, environmental degradation driven by pollution, sand mining, deforestation of mangroves, and the unregulated expansion of human settlements is accelerating in Sierra Leone’s marine and coastal areas, eroding the country’s already limited climate and disaster resilience.

Rising seas levels and coastal flooding in Freetown and along the Western Area also threaten undersea cable landing sites and associated infrastructure. Damage or disruption to these assets could significantly affect internet connectivity and the resilience of digital services. The environmental and social baseline focuses on the general environmental and social issues of relevance to the project captured in Chapter 3.

Positive Impact

The project is expected to bring significant benefits to Sierra Leone, including increased bandwidth capacity, economic benefits, improved access to essential services, and enhanced digital literacy. Increased bandwidth capacity will facilitate better communication and data transfer, supporting various sectors such as education, healthcare, and business. Economic benefits will be achieved through the creation of jobs and stimulation of economic growth, enabling businesses to access new markets and opportunities. Improved access to essential services such as education and healthcare, enabling citizens to acquire the skills and knowledge they need to participate in the digital economy.

Potential Adverse Environmental and Social Risks and Impacts

The environment risk rating is Substantial given the breadth of activities supported across multiple countries, the local context and the capacity of the governments to manage E&S risks associated with the project activities. Key environmental concerns identified at this stage include: (i) effects on sea water quality; (ii) risks associated with the disturbance of marine and other coastal ecosystem and biodiversity loss during construction and operation; (iii) construction waste disposal and e-waste management; (iv) occupational health and safety (OHS) risks for workers, and community health and safety (CHS) risks during both construction and operation; (v) air and noise pollution nuisances; (vi) water pollution; (vii) high energy consumption (viii) sedimentation and turbidity during nearshore works (ix) risks of hydrocarbon leaks from marine vessels and (v) noise and vibration. While significant and site-specific impacts are anticipated during construction, these are expected to be temporary, and manageable through appropriate mitigation and monitoring measures aligned with good international industry practices, energy optimization, sustainable procurement, and adoption of climate-smart and resource-efficient design, and the involvement of world class maritime specialists.

The social risk of the Project is rated Substantial. Infrastructure activities in Sierra Leone could involve land acquisition and associated economic disruption and potential physical displacement, as well as livelihood impacts on coastal communities and fishing communities due to temporary loss of access to fishing grounds during submarine cable installation the construction of cable landing station (CLS) and land network from CLS to the cities. Other social risks include labor influx, poor working conditions, occupational health and safety issues, and potential disruption to community health and safety. The risk screening results for SEA/SH are substantial as there will be civil works taking place requiring an influx of labor in economically fragile communities where poverty could be a push factor in sexual exploitation including a risk of gender-based violence (GBV) which is widespread in Sierra Leone.

The cumulative environmental and social risks and impacts of deploying new submarine cable systems landing stations and land network from CLS to the cities in Sierra Leone are substantial but manageable with adequate planning, stakeholder engagement, and adherence to international best practices and the World Bank Environmental and Social Standards. Key adverse risks include marine habitat and seabed disturbance, pollution, disruption to fishing and livelihoods, social exclusion, and health and safety concerns.

Mitigation Measures

The Project will apply the mitigation hierarchy—avoid, minimize, mitigate, and compensate—to manage environmental and social risks during design, construction, and operation. The ESMF, RF, LMP, SEP and ESCP will guide site-specific environmental and social risk management, supported by independent audits and robust grievance redress mechanisms. Prior to the selection of cable route and location of landing site, a detailed assessment of biodiversity risks and impacts, including a fine-scale map of sensitive marine and coastal habitats (e.g., turtle nesting beaches and other critical habitats in waters up to 25 m depth) as part of the Project’s technical feasibility studies. , The landing station and cloud infrastructure will be designed to meet green standards (e.g., EDGE certification, renewable energy integration).The key mitigation measures include (i) schedule cable laying and the terrestrial segment civil works during periods of low ecological sensitivity (e.g outside breeding/nesting seasons (ii) route cables to avoid critical habitats, marine protected areas, coral reefs, mangroves, and known breeding/nesting sites (iii) develop and implement a comprehensive OHS plan covering incident investigation, reporting, emergency preparedness (iv) implement traffic management plans and provide alternative routes to minimize risks to the community (v) utilize existing Grievance Redress Mechanism (GRM) for community complaints, including SEA/SH incidents (vi) monitor air and noise levels during construction and operation (vii) schedule works during periods of low sea wave action to minimize sediment dispersion (viii) conduct an assessment of the electronic waste generation during project implementation, and if required, an Electronic Waste Management Plan (ix) monitor energy consumption at the CLS and BMH and implement energy-saving measures (x) ensure all vessels comply with MARPOL provisions and national regulations for pollution prevention (xi) use low-noise equipment and vibration dampening techniques (xii) prepare and implement a SEA/SH Action Plan, including codes of conduct and training. Contractors will apply codes of conduct and SEA/SH action plans. On the social side, inclusion strategies, awareness campaigns, and citizen engagement platforms will help manage digital exclusion risks.

Where applicable, for civil works activities, subproject-specific instruments such as Environmental and Social Impact Assessments (ESIAs), and site specific Environmental and Social Management Plans (ESMPs), Biodiversity Management Plan (BMPs), and Resettlement Plans (RPs) will be prepared by the MoCTI Project Coordinating Unit (PCU) for approval by the Bank. Subsequently, the PCU will be required to disclose, implement and report on implementation progress of the approved ESIAs/ESMPs/BMPs/RPs. The PCU and SPV will ensure that the Codes of Conducts and Environmental and Social Clauses are inserted into contract documents and reporting mechanisms. Contractors will be required to adopt Contractor ESMPs (C-ESMPs) with Codes of Conduct and SEA/SH-sensitive supervision. For TA and feasibility studies, the Terms of Reference will be prepared by the MoCTI PCU and should include ESF clauses to screen for downstream environmental and social implications.

The SPV will develop, disclose, implement and maintain an Environmental, Social, Health and Safety Risk Management System (ESHSRMS) to ensure systematic identification, assessment, and management of ESHS risks across its operations, consistent with all relevant ESSs.

Institutional Arrangements for ESMF Implementation

The existing Project Coordination Unit (PCU) of the ongoing Sierra Leone Digital Transformation Project (P177077) will serve as the PCU of the WARDIP SOP2 but will recruit and maintain one Social & GBV specialist to complement the work of the existing Environmental Specialist. Building on its current mandate and capacity, the PCU will be responsible for core implementation functions, including project management, fiduciary, environmental and social safeguards, and M&E. Both the environmental and social (& GBV) specialists will supervise and monitor the environmental and social risk management system and activities of national Special Purpose Vehicle (SPV). The SPV will recruit and maintain qualified staff, including one Environmental Specialist and one Social Specialist to oversee the implementation of the

ESHSRMS. The PCU will also coordinate closely with the SPV to ensure that a defined portion of IDA proceeds is channeled as equity to the SPV on behalf of the Government of Sierra Leone and will also operate in accordance with the ESMF. The Environment Protection Agency (EPA-SL) requires the MoCTI PCU and SPV to obtain an environmental impact assessment (EIA) license before the commencement of civil works in accordance with the First Schedule (Section 24) of the EPA Act 2022

Capacity Building and Training for ESMF

Training programs to build capacity for the implementation of mitigation and management measures outlined in the ESMF and the cost associated with capacity building programs have been included in the ESMF implementation budget estimated at one hundred fifteen thousand United States Dollars (**US\$ 115,000**). These include training programs in grievance mechanisms (GM), SEA/SH and Occupational Health and Safety, Environmental and Social Risk Management Procedures, E&S monitoring and reporting, Incident and accident reporting and the World Bank Environmental and Social Framework as outlined in the ESCP. The details are summarized in Table 16 of the ESMF.

Estimated Budget

It is estimated that a total amount of five hundred sixty-one thousand seven hundred fifty United States Dollars (**US\$ 561,750**) will be required to implement activities identified in the ESMF throughout the project, however, details on the budget will be included in the prepared ESIA/ESMPs and RPs. These estimates only serve as a potential guideline for the preparation of site-specific ESIA/ESMPs which will have cost expenditures required to implement the ESMP. The details are summarized in Table 17 of the ESMF. These figures are indicative and the MoCTI PCU of WARDIP SOP2 will prepare subsequent funds as more clarity is obtained on project activities.

1. Introduction

1.1 Background Information

The proposed project (WARDIP-SOP2 or WARDIP2) is the second phase of a Series of Projects (SOP). Phase 1 of the Digital Transformation for Africa/West African Regional Digital Integration Project (DTfA/WARDIP) encompasses Guinea, Guinea Bissau, Mauritania, The Gambia, and supports the regional entities the Economic Community of West African States (ECOWAS), the Smart Africa Alliance (SAA), and African Union Commission (AUC). The proposed Phase 2 will cover Benin, Liberia, and Sierra Leone, and will support the West African Economic and Monetary Union (WAEMU). The SOP2 development objectives (PDO) are to increase broadband access, financing, and usage in participating countries and to advance the integration of digital markets in Western Africa.

Sierra Leone is at a pivotal moment in its digital development journey, with growing momentum around digital public services, entrepreneurship, and connectivity-driven transformation. With a population of approximately 8.4 million and a GNI per capita of US\$480 in 2023 (US\$1,460 in PPP terms), the country is navigating persistent economic challenges, including high inflation, youth unemployment, and low productivity. Digitalization presents a powerful opportunity to stimulate inclusive growth, diversify the economy, and expand access to essential services. Internet penetration has increased from 18% in 2020 to 21.2% in 2023, but the country remains dependent on a single submarine cable, Africa Coast to Europe (ACE) landed through the World Bank-funded WARCIP program in 2010. The ACE system is nearing the end of its operational lifespan and increasingly prone to physical damage (e.g. cable cuts), which has contributed to increasing operational costs. Securing a second submarine cable would enhance redundancy, lower wholesale internet costs, and improve service quality. Additionally, it would catalyze macroeconomic gains by unlocking new pathways for trade, innovation, and digital job creation. By strengthening foundational infrastructure this would unlock the digital economy and ensure that citizens, especially in underserved regions, benefit from inclusive and reliable connectivity.

1.2 Purpose of the Environmental and Social Management Framework (ESMF)

The purpose of this ESMF with annexes on LMP and Resettlement Framework RF is to guide the project implementing agencies involved in environmental and social (E&S) screening and subsequent assessments and management of E&S risks and impacts during project design and implementation, including development of site-specific Environmental and Social Management Plans (ESMPs), labor requirements in the LMP, and measures for managing asset impacts and mitigating livelihood disruptions outlined in the RF in accordance with the World Bank Environmental and Social Framework (ESF). The key agency will be the Ministry of Communications Technology and Innovation (MoCTI), and the existing Project Coordination Unit (PCU) of the ongoing Sierra Leone Digital Transformation Project (P177077) will serve as the PCU of the WARDIP SOP2. MoCTI will establish an SPV that will also operate in accordance with the ESMF.

1.3 Rationale for an Environmental and Social Management Framework

The Project's Environmental and Social (E&S) risk rating is substantial. The Project aims to strengthen institutions, develop human capital, improve urban water and sanitation, and eradicate open defecation. Potential risks emanate from Project-funded activities in water infrastructure, pollution, disease transmission from fecal sludge handling, and weak institutional capacity to manage these risks. The Project will prepare E&S framework instruments, such as ESMF, SEP and RF to manage and mitigate subproject

specific risks and impacts. For coherence and simplicity, only the ESMF and SEP will be prepared as standalone instruments. The RF and LMP have been annexed to this ESMF (See annex 1 and 2 respectively). Site specific risk management plans will be prepared prior to the start of any Project-related physical works. Site-specific activities will be screened to determine their individual risk levels and the risk management instrument determined accordingly.

The rationale for developing the frameworks is based on the consideration that sites and designs for all sub-projects will only be identified and prepared during the implementation of the project. Therefore, detailed site investigations will be carried out as part of identifying specific project activities and related designs at the selected locations to ascertain the precise nature of the environmental and social impacts. The ESMF will provide the necessary background for environmental and social considerations, a checklist of potential issues of the project activities to be considered and built into the design of the project so that socially sustainable implementation can take place, including environmental and social screening of subprojects and guidance on the preparation of specific assessments and plans. Site specific risk management plans will be prepared prior to the start of any Project-related physical works.

1.4 Aim and Objectives of the Environmental and Social Management Framework

This ESMF with annexes on RF and LMP is developed to support the environmental and social due diligence provisions for activities financed by the World Bank in the WARDIP SOP2 in Sierra Leone. The ESMF is intended to be used as a practical tool during project formulation, design, implementation, and monitoring of the project. For ensuring good environmental management in the proposed MWSP, the ESMF will provide guidance on pre-investment works/studies (such as environmental and social screening, environmental and social assessment, environmental and social management plans, etc.), provide a set of steps, process, procedure, and mechanism for ensuring adequate level of environmental and social consideration and integration in each investment in the project-cycle; and describes the principles, objectives and approach to be followed to avoid or minimize or mitigate impacts. More specifically, the ESMF aims to

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

This ESMF should be read together with other plans prepared for the project, including the Labor Management Procedures (LMP). This will include a gender, SEA/SH, and GBV risks assessment and Prevention Plan, Resettlement Framework (RF) will address impacts on assets and livelihoods due to land acquisition or involuntary relocation. It will guide the preparation of Resettlement Plans (RP) as needed. The Stakeholder Engagement Plan (SEP) will identify and involve key stakeholders, ensuring inclusive consultations. The SEP will include a grievance redress mechanism (GRM) to address complaints and foster

inclusive decision-making. The Environmental and Social Commitment Plan (ESCP) will outline necessary actions to meet environmental and social standards, including the implementation of the ESMF, RF, LMP and SEP.

1.5 Study Approach and Methodology

This ESMF follows the World Bank Environmental and Social Framework (ESF) as well as the national laws and local laws and regulations of Sierra Leone. The following approach and techniques were used in the preparing the ESMF:

- Review of the project details and data gathering through desktop study.
- Review of the policy and regulatory requirements
- Reconnaissance field visit and initial scoping and screening to determine the key environmental and social parameters and aspects that are likely to be impacted by the project activities.
- Stakeholder consultations with the relevant sector institutions including Ministries, Departments and Agencies (MDAs).
- Review and incorporation of comments and feedback from stakeholders into ESMF; and
- Approval of the ESMF for disclosure.

2. Project Description

2.1 Project Overview

The Digital Transformation for Africa/West African Regional Digital Integration Project – Series of Projects, Phase 2 (DTfA/WARDIP-SOP2 or WARDIP2) is the second phase of a regional program designed to accelerate digital transformation and integration in West Africa. The first phase (WARDIP-SOP1, P176932) covers Guinea, Guinea Bissau, Mauritania, and The Gambia, while also supporting regional institutions such as the Economic Community of West African States (ECOWAS), the Smart Africa Alliance (SAA), and the African Union Commission (AUC). The proposed Phase 2 will expand coverage to Benin, Liberia, and Sierra Leone, and will additionally support the West African Economic and Monetary Union (WAEMU) and the Fonds Africain de Garantie et de Coopération Économique (FAGACE).

2.2 Rationale for a Regional SOP

The proposed project is the second phase of the WARDIP series, which aims to achieve a SDM in Africa. The DTfA/WARDIP projects will advance regional digital integration within ECOWAS, aligning with the AU SDM Strategy. WARDIP SOP2 builds on, and will run parallel to, investments in WARDIP SOP1, extending cross-border connectivity, data markets, and online market environments to additional countries. SOP2 includes WAEMU, aiming to create a harmonized and integrated economic space in West Africa. It also supports the African Guarantee and Economic Cooperation Fund (FAGACE, based in Cotonou, Benin) for bond issuance for digital transformation in WAEMU.

2.3 Project Development Objectives

The SOP program development objectives (PrDO) are to increase broadband access and usage in participating countries and to promote the establishment of a single digital market in Western Africa.

The SOP2 development objectives (PDO) are to increase broadband access and usage in participating countries and to advance the integration of digital markets in Western Africa.

2.4 Project Components

The SOP2 project follows the same design as SOP1 and is structured around four mutually reinforcing components to foster an integrated regional digital market. All components include a menu of activities defined in the WARDIP umbrella Program and from which Liberia, Sierra Leone, and Benin have selected activities to be implemented under SOP2, based on their most pressing needs and their regional interactions.

Component 1. Building Policy and Financing Pathways for West African SDM

- Subcomponent 1.1: Legal and regulatory environment for a West African SDM
- Subcomponent 1.2: Institutional capacities for a West African SDM
- Subcomponent 1.3: Mobilizing capital markets through bonds for digital transformation

Component 2. Connectivity Market Development and Integration

- Subcomponent 2.1: Legal, regulatory, and institutional capacity for telecommunications sector and digital economy
- Subcomponent 2.2: International and core backbone network infrastructure

Component 3. Data Market Development and Integration

- Subcomponent 3.1: Data safeguards: Legal, regulatory, and institutional capacity for cybersecurity data governance and AI development
- Subcomponent 3.2: Data Enablers: regional data flow and data infrastructure

Component 4. Online Market Development and Integration

- Subcomponent 4.1: Access to skills, markets and finance for digital jobs and entrepreneurship
- Subcomponent 4.2: Access to and use of digital financial services
- Subcomponent 4.3: Digital trade, e-commerce, and services for regional integration

Component 5. Project Management and Implementation Support

Component 6: Contingent Emergency Response

2.4.1 Project Components (Sierra Leone)

The component and proposed activities to be implemented under SOP2 in Sierra Leone is captured below.

Component 2: Connectivity Market Development and Integration (US\$46.7 million IDA equivalent and US\$76 million of unguaranteed commercial financing)

Subcomponent 2.1: Legal, regulatory, and institutional capacity for telecommunications sector and digital economy (US\$ 0.15 million IDA): to support strengthening regulatory frameworks to ensure submarine cable landing rights for the SPV and open access of the cable infrastructure.

Subcomponent 2.2: International and core backbone network infrastructure (US\$ 13.55 million IDA & unguaranteed commercial financing).

This subcomponent will address the financing gap for infrastructure deployment by providing catalytic public financing to maximize private sector investment. This approach will help reduce financial and technical risks for private investors, stimulating investments and leveraging private funds. Commercial providers are expected to finance or co-finance, design, build and operate network infrastructure (see Annex 4 for the key issues for private capital mobilization). Following deployment, the network will be operated on an open access basis, ensuring affordable access to facilitate the expansion of services. Activities will include:

- (a) The expansion of international and regional connectivity in Sierra Leone by supporting the design, financing, and deployment of new submarine cable systems and landing stations built on open access, energy efficiency, and climate resilience principles. The activity will provide catalytic IDA financing for each country's participation in landing-party entities² while potentially leveraging IFC, MIGA, and private partners to mobilize commercial debt and equity. Targeted technical assistance will also be provided to further strengthen both public and private stakeholders in implementing these structures effectively. Cable system designs and landing stations will integrate low-carbon and climate-resilient features. The cable deployed under the project will be significantly more energy efficient and the best available technology in terms of energy performance than the currently deployed ACE cable³. The

² Indicative allocations are US\$22m (Liberia) and US\$13m (Sierra Leone).

³ Without World Bank's intervention, the countries would continue to rely heavily on currently deployed ACE technology leading to higher energy consumption and GHG emissions. New submarine cables can carry 20 to 25 times more capacity than ACE while operating within a similar or even smaller total electrical power envelope. They offer approximately 3 to 5 times better energy efficiency (measured in watts per terabit transmitted) compared to ACE. This improvement results from several technological advances: (i) Increased fiber pairs (12–23 vs. 2FB in ACE) and Spatial Division Multiplexing (SDM): By spreading amplification power across many fibers, SDM lowers the optical power required per fiber. (ii) Ultra-low-loss fibers (G.654E vs. older G.654 used in ACE) have significantly lower attenuation—below 0.15 dB/km compared to 0.15–0.17 dB/km for ACE—reducing the number of repeaters and the power needed for amplification. (iii) ROADM technology in the new submarine cable provides 30–50% energy efficiency gains by enabling selective traffic routing and minimizing idle power consumption. Papapavlou, C.; Paximadis, K.; Uzunidis, D.; Tomkos, I. Toward SDM-Based Submarine Optical Networks: A Review of Their Evolution and Upcoming Trends. *Telecom* 2022, 3, 234–280. <https://doi.org/10.3390/telecom3020015>.

connectivity infrastructure deployment will be in accordance with international best practices such as Green ICT Standards and/or recommendations from the European Commission’s Joint Research Centre report Best Environmental Management Practice in the Telecommunications and ICT Services Sector⁴. Low-carbon and climate resiliency requirements will be included in the tenders such as prioritizing energy-efficient optical transmission technologies and low-power cooling, with renewable power integration where feasible, thereby substantially reducing the overall GHG emissions from connectivity infrastructure. On the adaptation side, Climate resilience measures for the connectivity infrastructure will follow recommendations from the ITU Standardization Sector on adaptation⁵. Specifically, landing stations will be sited and engineered with flood protection, elevation against sea-level rise, and coastal erosion buffers, while the systems themselves will incorporate redundancy and route diversity to ensure service continuity during climate-related shocks.

At the regional level, the subcomponent will coordinate with ECOWAS-led transaction advisory⁶ and with EU Global Gateway/EIB programs to harmonize feasibility studies, procurement timelines, and financing strategies. This layered approach—combining World Bank catalytic financing, private capital mobilization, and development partner support—ensures that smaller economies can secure affordable international capacity while making the overall cable systems more commercially viable.

- (b) In addition to supporting the second submarine cable, the project will provide technical assistance to explore alternative international and cross-border connectivity routes to further enhance network resilience. By reducing reliance on a single path, these measures will mitigate the risk of service disruption from extreme weather events, flooding, or coastal erosion. Activities include assessing the feasibility of leveraging existing regional infrastructure—such as the Côte d'Ivoire–Liberia–Sierra Leone–Guinea (CLSG) transmission line under the West African Power Pool (WAPP), which includes embedded OPGW fiber—for cross-border connectivity. Using OPGW fiber not only provides cost-effective redundancy but also significantly cuts GHG emissions by avoiding new trenching and civil works. The project will support route planning, infrastructure audits, and risk assessments to identify reliable terrestrial paths and reduce single points of failure. In Benin, this subcomponent will help the Government identify, analyze, and adapt global best practices, including models from highly resilient markets, to improve the robustness, governance, financial performance, and operational efficiency of submarine cable systems.

Component 5: Project Management and Implementation Support (US\$ 1.3 million): This component will finance project management and implementation of project-associated activities. This component will help strengthen the technical and operational capacity of the PIUs, including through the recruitment of expert consultants in key areas and the facilitation of on-the-job learning and competency transfer. It will support independent audits, monitoring and evaluation (M&E) (including collecting gender-disaggregated data), and quality assurance to ensure compliance with best procurement and financial management (FM) practices. Support will be provided to enable collaboration between regional and national PIUs. This component will also support Environmental and Social Framework (ESF) compliance, with a particular emphasis on addressing the high security- and GBV-related risks associated with the deployment of

⁴ Canfora, P., P. Gaudillat, I. Antonopoulos, and M. Dri., 2020. “Best Environmental Management Practice in the Telecommunications and ICT Services Sector.” EUR 30365 EN, Publications Office of the European Union, Luxembourg, 2020, ISBN 978-92-76-21574-5, doi:10.2760/354984, JRC121781

⁵ For example, Recommendation ITU L.1502: Adapting information and communication technology infrastructure to the effects of climate change; and best practices from “[Resilient telecommunications infrastructure - A practitioner’s guide](#)”

⁶ Through a WB grant under WARDIP-SOP1 (P176932), ECOWAS engaged a regional advisor that completed feasibility studies (including preliminary E&S assessments) for The Gambia, Guinea, Guinea-Bissau (SOP1 countries) and Liberia, Sierra Leone (SOP2 countries), and is now supporting transaction design and engagement with system promoters to package smaller markets, improve resilience, and harmonize procurement timelines..

infrastructure and civil works, including stakeholder consultation and citizen engagement, a robust grievance redress mechanism, and development of site-specific assessments and plans. The project will also support country's participation in regional and continental meetings on, as well as the facilitation of governance at the national level. It will also support inter-country dialogues, as well as study tours.

Component 6: Contingent Emergency Response Component (CERC) (\$0.0 million IDA): CERC is included in the project in accordance with Investment Project Financing (IPF) Policy, paragraphs 12 and 13, for Situations of Urgent Need for Assistance and Capacity Constraints. This will allow for rapid reallocation of [loan/credit/grant] uncommitted funds in the event of an eligible emergency. To meet CERC activation requirements, the Government will prepare a CERC Manual, submit an Emergency Action Plan (EAP), and meet the E&S requirements agreed in the EAP and ESCP.

2.5 Proposed Subprojects covered by the ESMF

The potential sub-projects in Sierra Leone are as follows:

- Strengthening the regulatory framework to ensure open access for new submarine cables and landing infrastructure.
- Design, financing, and deployment of a new international submarine cable system and construction of a new open-access cable landing station in Sierra Leone.
- Landfall and near-shore work using trenching or horizontal directional drilling for safe cable entry and protection.
- Terrestrial backhaul installation to connect the landing station to the national fiber-optic backbone and core nodes.
- Strengthening the regulatory framework to ensure open access for new submarine cables and landing infrastructure.
- Design, financing, and deployment of a new international submarine cable system and construction of a new open-access cable landing station in Sierra Leone.
- Landfall and near-shore work using trenching or horizontal directional drilling for safe cable entry and protection.
- Terrestrial backhaul installation to connect the landing station to the national fiber-optic backbone and core nodes.
- Feasibility and Technical Assistance studies in this sector

A draft feasibility study (FS) report and a preliminary Environmental and Social report to evaluate the viability of the submarine cable project, considering its potential environmental and social implications, that will guide the assessment and inform project planning and decision-making. has been prepared by TACTIS for the installation of a second submarine cable in Sierra Leone.

Based on the FS report, four possible options to improve the international connectivity of Sierra Leone is analyzed. The first option is to implement the AMILCAR CABRAL project (standalone). A second option is to connect to an existing cable, with three systems identified: SHARE (SENUM SA between Dakar and Praia in Cape Verde), EQUIANO (from Google) and 2AFRICA (from Meta). The third option would be to take advantage of a future project to connect Guinea and Gambia. Three private promoters have indicated their desire to carry out such a project: CYBASTION, MEDUSA and VIA AFRICA (led by Orange). Finally, the last option is to rely on sub-regional electricity network interconnection projects, in particular those of the "Organisation pour la Mise en Valeur du Fleuve Gambie "(OMVG) between Senegal, Gambia, Guinea Bissau and Guinea, and TRANSCO CLSG between Côte d'Ivoire, Liberia, Sierra Leone and Guinea.

Based on the FS report, following a decision meeting organized on August 20, 2025, by ECOWAS, Sierra Leone selected Option 3 for the connection of these countries to a 2nd submarine cable which consists of encapsulating the Amilcar project in a larger-scale project carried out by AFR-IX (MEDUSA) or Orange (VIA AFRICA) along all the West African Coast. Considering that it provides greater guarantees of success, responding more satisfactorily to the needs of the private sector, at controlled cost. From October 22-24, 2025, a workshop organized by ECOWAS was conducted in Monrovia Liberia to validate the draft report of the feasibility studies for the installation of a submarine cable. On landing points, the location in Sussex has been proposed as the most suitable location, with the availability of the electricity network, metropolitan fiber optics, and available plots. The length of this terrestrial segment should be limited to a maximum of a few kilometers (less than 2 km as far as possible). Its length will therefore depend on the physical location of the CLS.

Technical conditions of the projects and in particular an assessment of the possible length of the branch to reach a depth of 2,000 m (2km), the conditions under which they could be laid (sinking, single laying) and the types of cable (double armouring, single armouring) and on the terrestrial part a research zones and plots of land that are not yet built on and that could be suitable. The branch to be built to connect Sierra Leone to the second submarine cable is 158 km long.

2.5.1 Description of proposed project facilities

Trenches between Beach Manhole and CLS

Trenches will be excavated to facilitate the secure route of the cable interface from the beach to the landing station. The trenches will be dug to a considerable depth that meets standards, depending on the soil conditions, topography as well as the landing design.

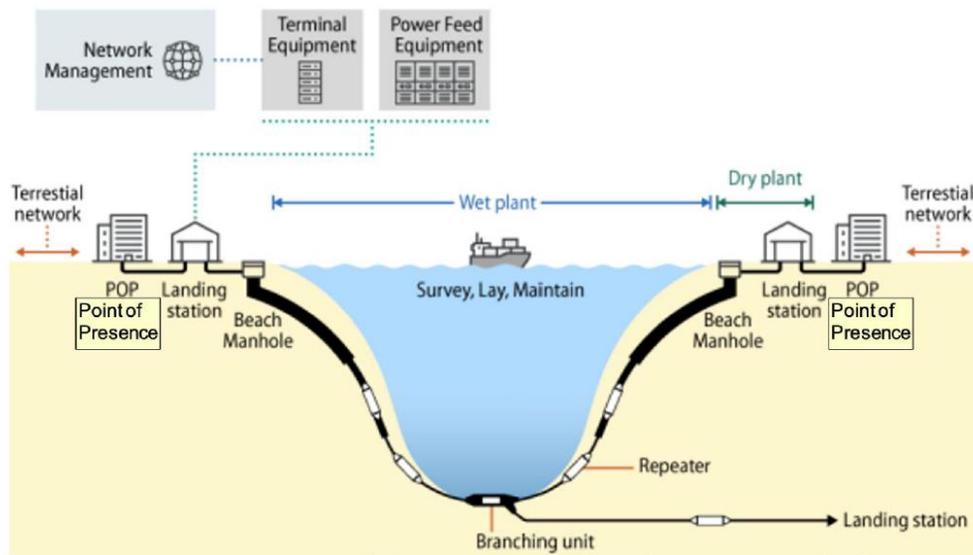


Figure 1: Trenches between Beach Manhole and CLS (Source: Feasibility study- Preliminary Environmental and Social report, 2025 by TACTIS)

Cables

The submarine fiber-optic cables are the backbone of the project. These cables will be laid on the seabed, starting from an offshore location to a specific point known as the cable landing site. The cables will be protected from damage and natural forces by being buried in shallow waters through jetting or ploughing

techniques. The project will also involve the installation of repeaters and amplifiers to maintain signal quality over long distances. The cables will be constructed with the following features:

- **Fiber-Optic Material:** The cables will be made of fiber-optic material, which allows for high-speed data transmission over long distances. This includes High-speed data transmission, Low signal attenuation, Immunity to electromagnetic interference.
- **Protective Coating:** The cables will be coated with a protective layer to prevent damage from environmental factors. The protective coating will be carefully selected to ensure that it provides adequate protection for the cables, and it will be designed to withstand the environmental conditions of the seabed, including water pressure, temperature fluctuations and marine life. The protective coating will provide several benefits, including Protection from water pressure, Protection from temperature fluctuations, Protection from marine life.
- **Repeaters and Amplifiers:** The project will involve the installation of repeaters and amplifiers to maintain signal quality over long distances. This include Repeaters will be installed at regular intervals along the cable route; Amplifiers will be installed at regular intervals along the cable route

Cable Landing Station (CLS): Building

The CLS will be built inland to connect the submarine cable to the national fiber backbone, ensuring reliable and efficient data transmission. The CLS will contain technical apparatus such as:

- **Power supply:** A reliable power supply system will be installed to ensure continuous operation of the CLS. The power supply system will include backup power sources, such as generators or batteries, to ensure uninterrupted operation in case of a power outage.
- **Climate control:** A climate control system will be installed to maintain a stable temperature and humidity level within the CLS. This will ensure that the technical equipment operates within optimal parameters, reducing the risk of equipment failure or downtime.
- **Switching gear:** Switching gear will be installed to manage data transmission and routing. The switching gear will enable efficient and reliable data transmission between the submarine cable and the national fiber backbone
- **Monitoring and security systems:** Advanced monitoring and security systems will be installed to ensure the security and reliability of the telecommunications infrastructure. These systems will enable real-time monitoring of the CLS and the submarine cable, allowing for quick detection and response to any issues or security threats.

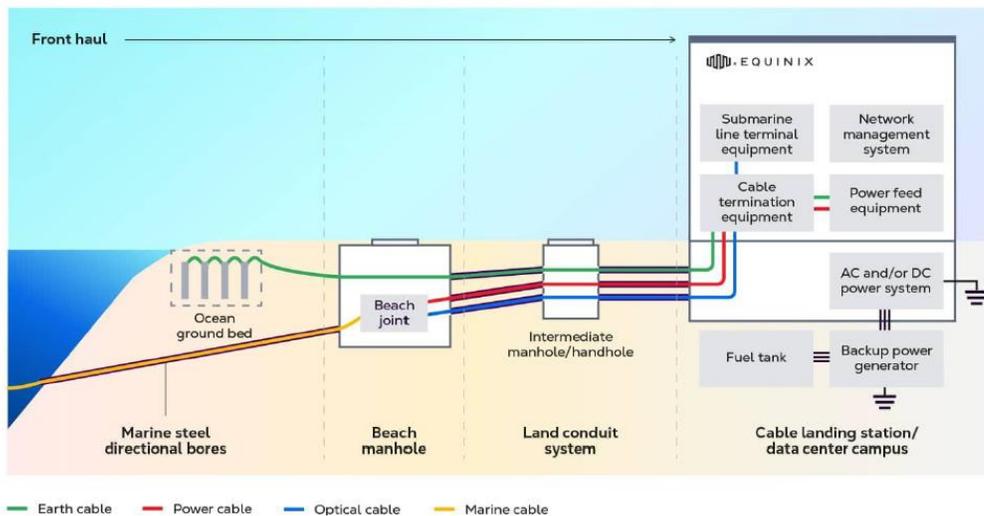


Figure 2: Cable Landing Station (Source: Feasibility study- Preliminary Environmental and Social report, 2025 by TACTIS)

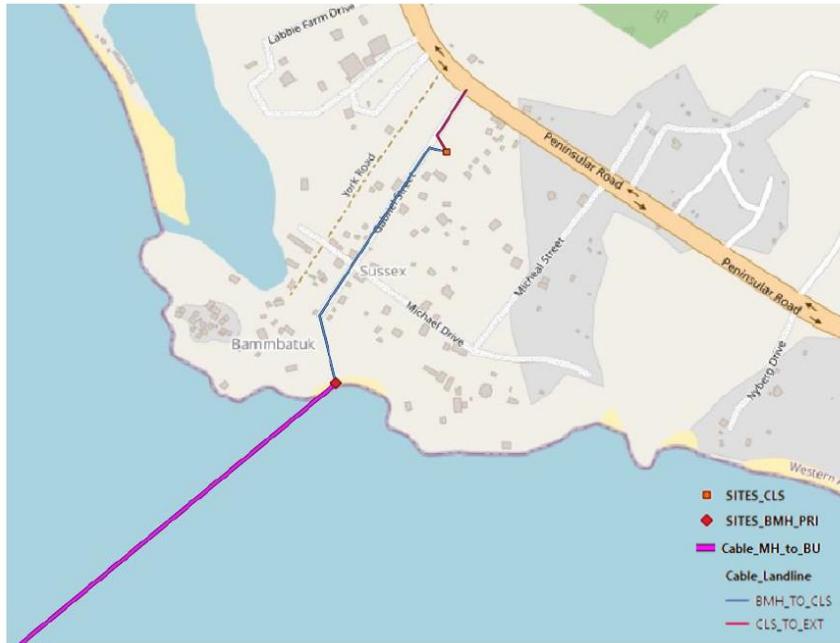


Figure 3: Provisional plans for the terrestrial segment (Source: Feasibility study report 2025 by TACTIS)

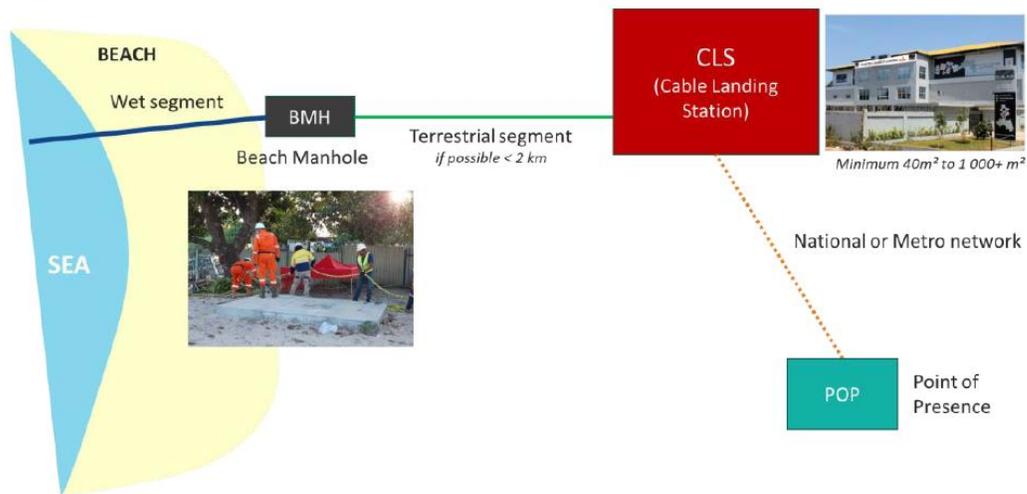


Figure 4: Illustrative diagram of the terrestrial segment (Source: Feasibility study report 2025 by TACTIS)

Table 1: Proposed project characteristics

Section		Description
MARINE SECTION		The branch to be built to connect Sierra Leone to the second submarine cable is 158 km long
Optical Cable Characteristics	Dimensions and	The optical cable will be either: Double armour cable (DA) for depths of between 0 and 50 meters. Single armour cable (SA) for depths of between 50 and 1,500 metres.

Laying the Optical Cable	On the entire branch, the cable will either be laid on the seabed or will be silted up. A submarine plough is used to lay the cable and to install it at the same time
Repeaters	Repeaters will be installed to amplify the signal and extend the transmission distance. These repeaters will be sized according to the number of optical fiber pairs, i.e. two pairs of optical fiber.
Branching Unit (BU)	On the trunk side, the system's existing BU will be used, and the work will aim to connect the branch at the level of the BU installed when the submarine cable system was first laid. This BU must be fitted with bi-directional "WSS8 ROADM9 " equipment, i.e. equipment enabling a connection in two (2) separate directions.
TERRESTIAL SECTION	
Beach manhole (BMH)	The terrestrial segment consists of the link between the Beach Manhole (BMH) and the Cable Landing Station (CLS). The beach manhole is the point of interconnection between the marine and land sections. The BMH is generally installed at the end of the beach or close to a causeway. The size of the BMH will depend on the minimum bending radius of the cable (manufacturer's engineering rule) and the number of cables/boxes to be placed inside
Support infrastructures for the terrestrial segment	The land segment built between the BMH and the CLS consists of a set of at least three (3) 42/45 mm ducts in a trench at least 1.40 metres deep and if possible, depending on the nature of the soil, reaching 2 metres down. A warning grid will be installed to prevent any risk of damage caused by the work.
Terrestrial segment optical cable	An optical cable suitable for installation in cable ducts will be installed, such as a "Light Weight protected submarine cable". A metal tape will act as an electromagnetic shield and will be earthed during installation.

Source: Project WARDIP Submarine Cable | Feasibility study report - Sierra Leone (2025) by TACTIS

The feasibility study has identified Sussex community as a potential landing point for the submarine cable with at least three points, strategically placed for considerations (Figure 5 and Table 2).



5: Proposed Landing Stations in Sussex village (Source: MoCTI, 2025)

Figure

Table 2: Proposed points for the Sussex Landing Station

Station ID	Description	Latitude	Longitude	
Proposed Landing Station A (Site 1)	Location A is a prime spot for the submarine cable landing, situated less than 50 meters from the main Peninsular Road. The land is privately owned and fenced off, but the front view offers a potential opportunity to negotiate for a larger space.	8.34972	-13.22962	
Proposed Landing Station B (Site 2)	Location B is another potential site, located less than 250 meters from the main Peninsular Road. The land is privately owned and fenced off on three sides, with the front view being the only open side.	8.34913	-13.22999	
Proposed Landing Station C (Site 3)	Location C is situated on Gabriel Street along the main Peninsular Road. Although the land is privately owned and currently in dispute, it may be possible to negotiate for its use. This location presents both opportunities and challenges that need to be carefully considered.	8.34966	-13.22891	

(Source: Feasibility study- Preliminary Environmental and Social report, 2025)

(Source: PMU Drone Photograph, 2025)

2.6 Institutional and Implementation Arrangements

WARDIP-SOP2 involves implementing activities at country and regional levels in a coordinated framework. National-level PIUs will implement activities financed through the national and regional IDA credits and

grants. A light smaller PIU will be established at WAEMU Headquarters to coordinate closely with the ECOWAS PIU and national PIUs of WARDIP SOP1 and SOP2.

For Sierra Leone, project implementation will be anchored in the existing PCU of the Sierra Leone Digital Transformation Project (P177077). Technical specialists will be recruited within this PCU to support the new operation, while fiduciary, environmental and social safeguards, and M&E functions will continue to be managed by the established PCU housed at the Ministry of Communication, Technology and Innovation (MoCTI).

The SPV will recruit and maintain qualified staff, including one Environmental Specialist and one Social Specialist to oversee the implementation of the Environmental, Social, Health and Safety Risk Management System (ESHSRMS). The PCU will also coordinate closely with the SPV to ensure that a defined portion of IDA proceeds is channeled as equity to the SPV on behalf of the Government of Sierra Leone and will also operate in accordance with the ESMF.

Regional-national level collaboration. Several key channels will be set up to ensure collaboration between the regional and national levels, with focal points from national PIUs coordinating with the regional Project Steering Committee (PSC) and Project Technical Committee (PTC) on implementing activities that require input at the country level.

3. Environmental and Social Policies, Regulations, and Laws

This section summarizes the regulatory framework relevant/applicable to the WARDIP SOP2-Sierra Leone Project implementation. The section will compare national regulatory and legal frameworks with the requirements of the World Bank Environment and Social Framework (ESF), identify gaps between these two pieces of instruments, and how propose measures by which these gaps will be addressed.

3.1 World Bank Environmental and Social Framework

The World Bank ESF seeks to support borrowers to develop and implement environmentally and socially sustainable projects as well as build capacity in the assessment and management of environmental and social impacts and risks associated with the implementation and operation of projects. The ESF contains 10 Environmental and Social Standards (ESSs) that borrowers must apply to all projects to be sustainable, non-discriminatory, transparent, participatory, environmentally and socially accountable as well as conform to good international practices. The Bank and the Government have agreed on the role and responsibility of the latter in identifying, mitigating and managing the E&S risks associated with the activities of this project, and this agreement is enshrined in the Environmental and Social Commitment Plan (ESCP), which forms part of the project’s legal agreement. Out of the ten ESSs, the relevant ESSs for Western African Regional Digital Integration Project Series of Projects 2 Sierra Leone (WARDIP SOP2) are presented in Table 3 below.

Table 3: Relevant World Bank Environmental and Social Standards that apply to: Sierra Leone WARDIP SOP2

Environmental and Social Standard (ESS)	Key Requirements	Status	Remarks/Comments
Environmental and Social Standard 1 (ESS1): Assessment and Management of Environmental and Impacts and Risks	ESS1 provides structured processes or procedures for project categorization, assessing and evaluating project environmental and social risks and impacts, as well as management of same (mitigation hierarchy). This standard also sets out Borrower’s requirements, including the preparation of various instruments such as Environmental and Social Management Frameworks, Environmental and Social Impact Assessment, Environmental and Social Management Plans and Environmental and Social Commitment Plans as well as information disclosure. The standard also lays out project environmental and social monitoring and reporting requirements. ESS1 establishes the applicability of the other ESSs. It establishes the basis for categorizing projects based on the borrower’s capacity to manage and monitor environmental and social risks/impacts as well as the implementation of mitigation measures, socio-political context, scale of the undertaken as well as spatial extent and significance of anticipated impacts and Risks	Relevant	ESS1 is relevant to the project as the planned activities, particularly the construction and operation of digital infrastructure, have the potential to generate a range of environmental and social (E&S) risks and impacts. These include risks to marine and terrestrial ecosystems, community livelihoods, occupational health and safety, land acquisition, and labor-related issues. ESS1 provides an overarching framework for identifying, assessing, managing, and monitoring these risks in a structured and consistent manner throughout the project cycle. It also ensures that appropriate instruments are developed to mitigate potential adverse impacts while maximizing project benefits. To address these requirements, each country has prepared an Environmental and Social Management Framework (ESMF) to guide the screening of activities and the preparation of site-specific instruments. The ESMF includes a gender, SEA/SH, and GBV risk assessment and prevention plan, as well as Labor Management Procedures (LMP). In addition, the project has prepared a Stakeholder Engagement Plan (SEP) to guide systematic stakeholder engagement. In addition, each country, WAEMU, and FAGACE have prepared Environmental and Social Commitment Plans (ESCPs). The ESCPs set out the specific measures and actions to be implemented, along with monitoring and reporting responsibilities, ensuring alignment with the ESSs and consistency across all participating countries and regional institutions. Before appraisal, the ESMFs, SEPs and ESCPs will be finalized and publicly disclosed. Based on screening outcomes, site-specific instruments such as Environmental and Social Impact Assessments (ESIAs), Environmental and

Environmental and Social Standard (ESS)	Key Requirements	Status	Remarks/Comments
Environmental and Social Standard 2 (ESS2): Labor and Working Conditions	It is to ensure a safe, healthy and conducive working environment for workers and ensure that the environment is free of forced and child labor as well as other forms of intimidation, discrimination and harassment. ESS2 also ensures that workers have channels for grievance resolution, freedom of association and access to collective bargaining rights as prescribed by national law. The standard also seeks to protect vulnerable workers. The Labor and Working Conditions requirements will cover all project workers in this project: direct, community and contract workers as well as primary supply workers.	Relevant	<p>Social Management Plans (ESMPs), Biodiversity Management Plans (BMPs), and Resettlement Plans (RPs) may be prepared, consulted upon, and disclosed before implementation of relevant activities. In addition, other specific Environmental and Social (E&S) management plans may be prepared, as necessary, in line with the applicable Environmental and Social Standards (ESSs)—such as Occupational Health and Safety (OHS) Plans, Waste Management Plans, e-Waste Management Plans, Traffic Management Plans, or Community Health and Safety Plans.</p> <p>ESS2 is relevant to the project as it addresses labor and working conditions, which are critical in the context of large-scale digital infrastructure development and associated supply chains. Project activities involve a range of workers, including direct workers, contracted workers, and potentially migrant labor, whose rights, safety, and wellbeing must be safeguarded. ESS2 ensures that labor risks are effectively managed through fair treatment, nondiscrimination, protection of vulnerable groups, and the promotion of safe and healthy working conditions. Before project appraisal, each borrower has prepared Labor Management Procedures (LMPs) as part of the Environmental and Social Management Framework (ESMF). The LMPs cover working conditions, grievance redress mechanisms for all categories of workers, and the roles and responsibilities of the implementing agencies. They outline key provisions on nondiscrimination and equal opportunity, occupational health and safety (OHS), and the requirement for all workers to sign a Code of Conduct (CoC). The CoC specifies behavioral standards, including prohibitions against sexual</p>

Environmental and Social Standard (ESS)	Key Requirements	Status	Remarks/Comments
Environmental and Social Standard 3 (ESS3): Resource Efficiency and	ESS 3 promotes sustainable resource utilization, avoiding and/or minimizing project pollution, generation of hazardous and non-hazardous waste and project-related emissions. This standard enjoins	Relevant	<p>exploitation, abuse, and harassment (SEA/SH). To reinforce compliance, all workers will receive SEA/SH training and awareness sessions. Contracts with contractors, subcontractors, and supervising entities will be aligned with national labor laws and ESS2 requirements, ensuring fair terms of employment. The LMPs also require Occupational Health and Safety Plans consistent with national regulations and the World Bank Group’s Environmental, Health, and Safety (EHS) General and Industry specific Guidelines. These plans will include incident reporting protocols, compliance monitoring, emergency preparedness and response measures, and provisions for ongoing training. In addition, contracts will integrate environmental and social mitigation measures and include provisions prioritizing the use of local labor, where appropriate. The CoCs will clearly define prohibited actions, associated penalties, procedures for reporting violations, and mechanisms for complaints handling, thereby ensuring accountability and a safe working environment. For submarine cable installation, risks associated with working at sea and underwater encompass proper vessel operations, safe equipment management, dive safety protocols, environmental safeguards to prevent unintended damage, emergency preparedness measures, and comprehensive crew training will be considered. Through these measures, ESS2 requirements will be fully integrated into project implementation, promoting safe, fair, and equitable labor practices across all participating countries and entities.</p> <p>ESS3 is relevant to the project as it addresses resource efficiency and pollution prevention, which are central concerns given the scope of digital infrastructure construction, including submarine cable deployment</p>

Environmental and Social Standard (ESS)	Key Requirements	Status	Remarks/Comments
Pollution Prevention and Management	Borrowers to ensure efficient use of energy, water and other raw materials as well as manage air pollution, hazardous and non-hazardous waste, chemicals and hazardous materials (including pesticides) in both degraded and non-degraded areas given their technical and financial feasibility in line with Good International Industry Practice (GIIP).		and terrestrial fiber installation. Project activities will require significant use of natural resources such as energy, water, sand, granite aggregates, and steel rods, in addition to specialized materials used in submarine cable works, including cable armoring, protective sheathing, and concrete mattresses or anchors for securing cables on the seabed. Without careful planning, the use of these resources could strain local supplies, increase costs, and contribute to environmental degradation. ESS3 ensures that resource use is efficient and that pollution resulting from project activities is avoided or minimized. The project's construction and installation works will generate both solid and liquid wastes. These are expected to include excavated soils, remnants of construction materials, wood, scrap metals, used oils, and wastes from the replacement of old underground cables and installations. Submarine cable works may also produce marine sediments from seabed disturbance and packaging wastes associated with transporting and handling cable components. If not properly managed, these wastes could create risks to soil, water, and air quality, marine ecosystems, and public health and safety. To address these issues, site-specific Environmental and Social Impact Assessments (ESIAs) and Environmental and Social Management Plans (ESMPs) will assess resource use and management scenarios in detail and prescribe appropriate mitigation measures. These measures will include efficient sourcing and use of raw materials, energy optimization, waste segregation and recycling, safe disposal of hazardous materials, and pollution control measures consistent with national regulations and the World Bank Group's Environmental, Health, and Safety (EHS) Guidelines.

Environmental and Social Standard (ESS)	Key Requirements	Status	Remarks/Comments
Environmental and Social Standard 4 (ESS4): Community Health and Safety	Environmental and Social Standard 4 (ESS4) is titled “Community Health and Safety”. The objective of this standard is to anticipate, avoid and/or mitigate adverse project impacts on beneficiary communities as well as safeguard project-affected communities from traffic and road safety risks, diseases and hazardous materials associated with project implementation and operation.	Relevant	<p>Through these actions, the project will minimize resource consumption, reduce pollution, and promote sustainable construction practices. ESS3 requirements will be fully integrated into project design and implementation, ensuring that environmental sustainability is maintained across all activities, both onshore and offshore.</p> <p>ESS4 is relevant to the project as it addresses community health and safety, which may be affected by both onshore and offshore construction and operational activities. The deployment of broadband and fiber networks, including in rural and coastal areas, introduces potential risks to local communities that must be carefully managed to avoid adverse impacts. Key concerns include increased vehicle flow and associated road safety risks, as well as noise, dust, and vibrations from construction activities. There is also potential for exposure to hazardous materials during handling, transportation, and storage. Improper storage of chemicals or poor disposal of waste could pose health and safety risks to communities. There is the risk of sea traffic accidents, particularly involving fishermen, shipping vessels, the navy and commercial sea ferry. Those living near landing stations or cable routes are also prone to accidents. Other social risks include increased risks of property theft and community tensions related to the presence of outside workers. To address these issues, site specific Environmental and Social Impact Assessments (ESIAs) and Environmental and Social Management Plans (ESMPs) will identify and prescribe mitigation measures, including traffic management plans, safe storage and handling chemicals, protocols for waste management, and measures to control noise, dust, and vibration. These</p>

Environmental and Social Standard (ESS)	Key Requirements	Status	Remarks/Comments
Environmental and Social Standard (ESS5)- Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	ESS 5 acknowledges that project-related land acquisition and land-use limitations can negatively affect communities and individuals. Physical displacement (relocation, loss of residential land, or loss of shelter) or economic displacement (loss of land, assets, or access to assets leading to loss of revenue sources or other means of subsistence) may result from project-related land acquisition or limits on land usage.	Relevant	<p>instruments will also include health and safety safeguards for both workers and communities, incident reporting protocols, and emergency preparedness measures. In addition, the ESMF and SEP incorporate grievance mechanisms (GMs) to enable communities to raise concerns and have them addressed transparently and promptly. A gender assessment and a Sexual Exploitation, Abuse, and Harassment (SEA/SH) Prevention Plan will further evaluate potential health and safety risks, including those linked to labor influx, and put in place measures to mitigate them. The Labor Management Procedures (LMP), as part of the ESMF, establish safeguards to protect project workers and ensure safe working conditions. If security risks are identified, a Security Management Plan (SMP) may also be prepared. The SMP will define roles, responsibilities, and monitoring arrangements for managing potential security hazards in line with good international practice. Through these measures, ESS4 requirements will be fully integrated into project design and implementation, ensuring that communities are protected from health, safety, and security risks throughout the project life cycle.</p> <p>ESS5 is relevant to the project as certain activities, such as the installation of underwater cables, the expansion of fiber networks, and the installation of fiber optic cables, may require land acquisition and could disrupt livelihoods. The exact locations and detailed designs have not yet been finalized, which makes it difficult at this stage to estimate the number of potentially affected individuals. In Benin, the project will prioritize the development of transnational backbone infrastructure to connect neighboring countries and to address the remaining</p>

Environmental and Social Standard (ESS)	Key Requirements	Status	Remarks/Comments
Environmental and Social Standard- (ESS6) - Biodiversity Conservation and Sustainable Management of Living Natural Resources		Relevant	<p>agenda on last mile access. In Liberia, the project will focus on the construction of the submarine cable landing facility. These activities may involve the acquisition of land, temporary occupation of land, or restrictions on land use that could affect households, businesses, and fishermen whose livelihoods depend on coastal and marine resources. The World Bank task team will actively engage with the client on issues related to land acquisition, economic displacement, and compensation in order to assess and address these needs. Where required, these aspects may warrant inclusion in the project components to ensure compliance with ESS5 principles. To provide a framework for managing these potential impacts, the Environmental and Social Management Framework (ESMF) prepared by each participating country will include procedures for screening subprojects to identify risks related to land acquisition and physical and economic displacement. Based on the screening outcomes, site specific instruments such as Resettlement Plans (RPs) will be developed, consulted upon, and disclosed before implementation of any activity that may involve physical or economic displacement.</p> <p>ESS6 is relevant to the project because the deployment of submarine and terrestrial cables may interact with natural habitats, including sensitive coastal and marine ecosystems. These environments may host critical biodiversity such as mangroves, seagrass beds, coral reefs, marine life, and other coastal wetlands that provide essential ecosystem services and support local livelihoods. Although efforts will be made to avoid siting activities in environmentally sensitive areas and Marine Protected Areas (MPAs), the risk of disturbance</p>

Environmental and Social Standard (ESS)	Key Requirements	Status	Remarks/Comments
Environmental and Social Standard (ESS8) - Cultural Heritage	It defines cultural heritage elements to include tangible assets such as shrines, artifacts and stones and intangible assets such as taboos. ESS 8 lays out the Bank’s requirements for development within or close to culturally sensitive zones. This standard also discusses the requirements that should be met prior to the development of projects that are likely to have adverse risks and impacts on cultural heritage sites and resources. The critical requirements include meaningful consultation with affected persons, experts and other interested parties, confidentiality/disclosure as well as movement and commercial use of cultural (heritage) resources. The Bank’s Environmental and Social	Relevant	<p>remains due to the scale and technical complexity of the planned works. To address these risks, the Environmental and Social Management Framework (ESMF) prepared by each participating country has to assess potential ecological impacts from project activities. The ESMF will also include screening procedures to identify subprojects that may interact with natural habitats or biodiversity. Where risks are identified, site-specific instruments such as Environmental and Social Impact Assessments (ESIAs), Environmental and Social Management Plans (ESMPs), and Biodiversity Management Plans (BMPs) will be prepared to prescribe detailed avoidance, minimization, and restoration measures. Particular attention will be paid to the routing of submarine cables to ensure they do not negatively affect ecologically sensitive areas such as mangrove forests, fish spawning grounds, and nearshore habitats vital to fisheries. The project will adopt internationally recognized best practices for marine cable installation to minimize seabed disturbance and ensure that ecosystems remain intact.</p> <p>This standard is considered relevant with a precautionary approach. Currently, it is not possible to ascertain the existence of culturally significant sites related to the project. During the construction process, it is possible that both identified and unidentified physical and cultural treasures may be discovered. While the likelihood is not deemed substantial in the project area, the ESMF will outline the likelihood of Cultural heritage in the project area and offer recommendations on unexpected discoveries, including underwater heritage. The routing of the submarine cable will exclude any known heritage sites. The ESIA will encompass the</p>

Environmental and Social Standard (ESS)	Key Requirements	Status	Remarks/Comments
	Standard on Cultural Heritage seeks to protect cultural heritage resources from adverse project impacts and establish them as an integral part of sustainable development.		evaluation of all cultural heritage elements, such as archaeological artefacts, fossils, human burial sites, places of worship, and holy vegetation, within the project vicinity. If any sites are discovered, they will be deliberately avoided. If avoidance is not feasible, the Environmental and Social Management Plan (ESMP) will determine the necessary steps to mitigate the consequences of these sites.
Environmental and Social Standard (ESS10) - Stakeholder Engagement and Information Disclosure	ESS10 establishes a systematic approach to stakeholder engagement while ensuring that appropriate information on project risks and impacts is provided to stakeholders in a timely, comprehensive, accessible, and appropriate manner. The standard also ensures inclusive and effective engagement of project-affected parties throughout the project cycle and provides avenues for assessing stakeholder interest and incorporating their views into project design and monitoring of projects.	Relevant	ESS10 is relevant to the project as meaningful stakeholder engagement is critical for identifying, assessing, and managing the environmental and social risks associated with digital infrastructure investments. The complexity of project activities, including submarine cable deployment, fiber extension, and regional financial intermediation, requires continuous and transparent communication with a wide range of stakeholders. ESS10 ensures that engagement processes are inclusive, culturally appropriate, and responsive to the needs of different groups, particularly vulnerable and marginalized populations, thereby supporting both project sustainability and success. To meet these requirements, each participating country has developed a Stakeholder Engagement Plan (SEP) tailored to the project’s scope and risks prior to project appraisal. The SEPs have been consulted upon and will be publicly disclosed prior to appraisal. They identify and engage key national institutions such as the Environmental Protection Agencies of Sierra Leone. In addition, other critical stakeholders include mobile carriers, end-users, civil society organizations advocating for vulnerable groups, and associations representing persons with disabilities. Stakeholder engagement will be conducted through open consultations using a variety of formats and locations

Environmental and Social Standard (ESS)	Key Requirements	Status	Remarks/Comments
			<p>to ensure accessibility and inclusivity. The SEPs also establish country-level grievance mechanisms (GMs), to receive and address complaints in a timely, transparent, and fair manner. These mechanisms will help strengthen accountability, build trust, and foster inclusive decision-making throughout the project’s life cycle. The SEPs, and the GMs, will play a central role in ensuring that the project meaningfully engages affected and interested stakeholders, manages expectations, mitigates risks, and ultimately maximizes the long-term social and environmental benefits of the project.</p>

3.2 Project Categorization under the World Bank ESF

Under the World Bank ESF, the World Bank classifies projects into four (4) categories: High, Substantial, Moderate and Low Risk largely based on the scale of the project, level of impact, environmental and social sensitivities and risks associated with the project, in country socio-political conditions as well as the capacity of the borrower to manage the associated impacts and risks.

Based on the nature and scope of project activities primarily under component 2 (construction of digital infrastructure, particularly the deployment of submarine cable and extension of fiber network) and the capacity of the MoCTI PCU in Sierra Leone to manage the environmental risks of project activities consistent with the ESSs, the risk rating is assessed to be Substantial at this stage.

The risk of Sexual Exploitation, Abuse, and Sexual Harassment (SEA/SH) is substantial, with 62% of women in Sierra Leone experiencing violence. An SEA/SH prevention and response action plan will be prepared and implemented by the MoCTI PCU and SPV within three (3) months after the project effective date, including recruiting a service provider and GBV/SEA/SH expert. Provisions in the SEA/SH Action Plan requiring contractors to adopt and enforce SEA/SH Codes of Conduct, mandatory worker training, establishment of referral pathways to qualified GBV service providers, and community awareness sessions (with women and youth) on SEA/SH risks and available reporting options will be prepared within three (3) months after the project effective date by the MoCTI PCU and SPV. The Project will leverage existing SEA/SH risk action plans and ensure a responsive Grievance Redress Mechanism (GRM), worker training, and an Accountability and Response Framework.

Stakeholder engagement will focus on inclusive participation and information disclosure using appropriate language and media. Key stakeholders include the Ministry of Communications Technology and Innovation (MoCTI). The project will benefit individuals, firms, and public sector entities in Sierra Leone, while also generating broader regional spillovers through support to WAEMU, FAGACE, and regional capital market institutions. A Stakeholder Engagement Plan (SEP) has been prepared, proportional to the project's nature, scale, risks, and impacts. The SEP will be disclosed before project appraisal, ensuring consultations are timely, relevant, understandable, and accessible. A documented record of stakeholder engagement at different stages of the project cycle will be maintained and publicly disclosed. A project-wide GRM will address concerns, including a confidential channel for SEA/SH issues. Local actors and liaison officers may be designated to coordinate the SEP implementation.

The EPA is mandated to review and approve environmental and social studies and have prior experience with Bank-financed operations and some exposure to the Bank's safeguard policies and the ESF, but their technical and operational depth remains limited. To address the limited knowledge of the ESF among borrowing clients, the Bank staff will continue to provide capacity development and training programs. The MoCTI PCU will Maintain the Environmental Specialist for Sierra Leone Digital Transformation Project (SLDTP) as the Environmental Specialist for WARDIP SOP2 for Sierra Leone too and recruit and maintain one (1) Social & GBV Specialist who will benefit from the experiences of SLDTP. These efforts will support the preparation and execution of environmental and social instruments consistent with the Bank's Environmental and Social Standards (ESSs).

When there is adequate information about the Project locations, scope of investment and the corresponding risks, the Project E&S risks will be reassessed based on the scope of Project activities and determine if it needs revision to upgrade the E&S risk rating and additional E&S instruments as needed.

3.3 Relevant World Bank Group Guidelines

The guidelines relevant to the project, and that will be summarized here are:

- The World Bank Environment and Social Framework (ESF), 2017
- World Bank Group Environmental, Health and Safety Guideline (EHSG), 2007 (General Guidelines)
- The EHS Guidelines for Ports, Harbors, and Terminals
- The EHS Guidelines for Telecommunications
- The EHS Guidelines for Electric Power Transmission and Distribution
- ESF Guidance notes for Borrowers
- ESF Good Practice for assessing and Managing the Risks of Adverse Impacts on Communities from Project-Related Labor Influx
- Good Practice Note Addressing Sexual Exploitation and Abuse and Sexual Harassment in the Financing of Investment Projects involving Major Civil Works
- Good Practice Note for Non-discrimination and Disability
- Good Practice Note: Non-Discrimination Sexual Orientation and Gender Identity (SOGI)
- Good Practice Note for Gender
- Good Practice Note: Assessing and Managing the Risks and Impacts of the Use of Security Personnel

The principal guiding instrument is the World Bank ESF, which sets out the World Bank’s commitment to sustainable development, through a Bank Policy and a set of Environmental and Social Standards that are designed to support Borrowers’ projects, with the aim of ending extreme poverty and promoting shared prosperity. The Environmental, Health and Safety Guideline (EHSG), also apply to the Project. The EHS Guidelines are technical reference documents with general and industry specific examples of Good International Industry Practice, in this case, Ports, Harbors, and Terminals, Telecommunications and Electric Power Transmission and Distribution

3.4 Regional Policy Framework

Table 4: Regional Policy Framework

No.	Regional Policy Framework
1	<p>Regulation C/REG.06/06/12</p> <p>Regulation C/REG.06/06/12 is a binding regional legal instrument adopted by the Economic Community of West African States (ECOWAS) in June 2012. Its main purpose is to establish the conditions for access to submarine cable landing stations in all ECOWAS member states, with a particular focus on ensuring that landlocked countries have equal access to international submarine fiber connectivity as coastal countries. Any new subsea cable or landing station project in Sierra Leone (or elsewhere in ECOWAS) must comply with C/REG.06/06/12, ensuring open access, fair pricing, and non-discriminatory treatment for all authorized operators.</p>
2	<p>Regulation C/REG 19/12/16</p> <p>Regulation C/REG.19/12/16 is a regional legal instrument adopted by the Economic Community of West African States (ECOWAS) in December 2016. Its main purpose is to harmonize and facilitate cross-border interconnection and access rights for electronic communications operators across ECOWAS member states. For projects involving new subsea cables, landing stations, or terrestrial fiber links, Regulation C/REG.19/12/16 provides the legal basis for cross-border interconnection and access, supporting the development of a regional digital market.</p>

3.5 Telecommunications/electronic communications regulatory framework

Table 5: Telecommunications/electronic communications regulatory framework

No.	Regional Policy Framework
1	<p>Telecommunications Act, 2006 (as amended)</p> <p>The Telecommunication Act, 2006 is an Act to establish the National Telecommunication Commission and to provide for the licensing and regulation of telecommunications operators and for the promotion of universal access to basic telecommunication services, fair competition for the benefit of investors in, and end users of telecommunication networks and services, to improve the national, regional and global integration of Sierra Leone in telecommunications and to provide for other related matters. The Act also under Section 73 establishes penalties to be meted out of offenders who seek to disrupt the delivery of telecommunication.</p>
2	<p>National Communications Authority Act, 2022:</p> <p>The National Communications Authority Act, 2022 is a cornerstone of Sierra Leone’s digital transformation, providing a modern, converged regulatory framework for communications, digital services, and data protection. It aims to foster competition, protect consumers, and enable the country to harness the benefits of digital technologies for inclusive growth and development.</p>
3	<p>Telecommunications Licensing Regulations, 2020</p> <p>The Telecommunications Licensing Regulations, 2020 were introduced to modernize and clarify the licensing framework for telecommunications operators in Sierra Leone. These regulations are administered by the National Telecommunications Commission (NATCOM), which is responsible for overseeing licensing, spectrum management, and supervision of all operators. The regulations aim to promote fair competition, improve transparency, and support sector growth in line with the country’s digital transformation agenda</p>
4	<p>Cybersecurity and Crime Act, 2021</p> <p>The Cybersecurity and Crime Act, 2021 was enacted in November 2021 as a cornerstone of Sierra Leone’s efforts to strengthen its legal and institutional framework for cybersecurity and cybercrime. The Act responds to the growing risks posed by digitalization, cyber threats, and the need to protect critical information infrastructure (CII) across government, financial services, telecommunications, energy, and other sectors. It aligns with Sierra Leone’s National Cybersecurity Policy and Strategy (2021–2025), which aims to secure cyberspace and support the country’s digital transformation agenda</p>
5	<p>The Data Protection Bill, 2021</p> <p>The Data Protection Bill, 2021 is a cornerstone of Sierra Leone’s digital transformation agenda, designed to establish a comprehensive legal framework for the protection of personal data and privacy rights. As of mid-2022, the Bill was pending Cabinet approval, reflecting the government’s recognition of the need to safeguard citizens’ data in an increasingly digital economy</p>
6	<p>Sierra Leone: National Digital Development Policy (NDDP) and Strategy (NDDS)</p> <p>The country’s digital agenda is anchored in several high-level frameworks, including the Medium-Term National Development Plan (MTNDP), the National Innovation and Digital Strategy (NIDS, 2019–2029), and the National Digital Transformation Roadmap (NDTR, 2019). Sierra Leone’s NDDP and NDDS represent a major step toward a unified, inclusive, and resilient digital future. The policy and strategy provide a clear roadmap for leveraging digital technologies to drive economic growth, improve public services</p>
7	<p>Sierra Leone: Dig Once Policy</p> <p>Dig Once" policy is a regulatory and planning approach that coordinates the installation of infrastructure, especially fiber optic cables and other utilities so that when roads or public spaces are excavated for any reason, multiple infrastructure needs are addressed at once. This minimizes repeated disruptions, reduces costs, and accelerates broadband and utility expansion</p>

3.6 National Environmental and Social Policy Framework

The national policies identified as relevant or applicable to the project are presented in Table 6 and these include:

Table 6: Relevant National Policies

No.	National Policies
1	<p>National Environmental Policy (NEP) 2013</p> <p>The National Environmental Policy (NEP) enacted in 2013 is the key policy instrument for harmonizing the development between human and natural aspects and ensuring that the development is sustainable and does not have any environmentally negative effects. The Policy seeks to achieve sustainable development through the implementation of sound environmental management principles, and it also promotes efforts which will prevent or eliminate damage to the environment and biosphere while stimulating a quality environment that can adequately provide for the health and well-being of the citizenry. The NEP takes into consideration sectoral goals and policies aimed at enhancing sustainability in environmental management. Sectorial policies highlighted within the NEP include Land Tenure, Land Use and Soil Conservation; Water Resources Management; Forestry and Wildlife; Biodiversity and Cultural Heritage; Air Quality and Noise; Sanitation and Waste Management; Toxic and Hazardous Substances; Coastal and Marine Resources; Occupational Health and Safety; Energy Production and Use; Settlements, Recreational Space and Greenbelts; Public Participation; Quality of Life; Gender Issues and the Environment; Institutional and Government Arrangements; Legal Arrangement.</p> <p>It is applicable to achieve sustainable development through the implementation of sound environmental management principles in project design and implementation.</p>
2	<p>National Climate Change Policy (NCCP) 2021</p> <p>The National and climate change Policy guides Sierra Leone’s efforts to address climate change. Its five main goals are to: i) integrate climate change into national planning; ii) strengthen institutional and governance frameworks for climate change adaptation and low carbon growth; iii) reduce greenhouse gas emissions; iv) increase knowledge and understanding of climate change; and v) build the adaptive capacity of vulnerable communities.</p>
3	<p>Sierra Leone Fisheries and Aquaculture Policy (2016)</p> <p>The policy’s goal is to achieve “ecologically sustainable and economically efficient fisheries in Sierra Leone” by providing a comprehensive guide to resource management. The policy is structured around 10 areas: conservation and sustainable resource use; sustainable artisanal fisheries management; sustainable aquaculture development; competitive fish trade and marketing; fisheries on the high seas; food fish and nutrition security; institutional reform and intersectoral linkages; regional and sub-regional cooperation; human capital development in fisheries and aquaculture; and cross-cutting issues in fisheries and aquaculture.</p>
4	<p>National Disaster Risk Management Policy, 2018</p> <p>The policy vision is to have “A safer and resilient nation in which communities, the economy and the environment are better protected from the negative impacts of hazards, through appropriate comprehensive disaster risk management.”</p> <p>Sierra Leone is increasingly vulnerable to natural and man-made hazards. The DRM policy aims to establish processes, procedures, and structures for the coordination and effective integration of disaster reduction into development planning and sector policies, delivery of required assistance, and addressing of the consequences of disasters declared in Sierra Leone under the appropriate national legislation. The DRM policy includes clear roles and responsibilities for national and local governments and development partners to implement a timely response to disasters while also integrating local-level communities into effective disaster management systems.</p>
5	<p>The Right to Access Information Act, 2013</p> <p>Being an Act to provide for the disclosure of information held by public authorities or by people providing services for them and to provide for other related matters. This implies that the MoCTI PCU is mandated by this Act to disclose all the relevant information about the project to affected and interested stakeholders and that failure to supply information to stakeholders is tantamount to an offense which is liable on conviction to a fine not exceeding ten million Leones in the case of an individual and one hundred million Leones in the case of a body corporate or to a term of imprisonment not exceeding six months or to both the fine and imprisonment.</p>
6	<p>Cultural Heritage</p>

	<p>The National Environmental Policy (2013) provides for the collection of relevant data on biological diversity and cultural heritage. It seeks to promote socioeconomic and cultural development through the preservation of biological diversity for a sustainable utilization of natural resources. There are references to the preservation and/or respectful removal (considering cultural sensitivities) of ‘society bushes’ for mining and other purposes in various regulations.</p> <p>The Monuments and Relics Commission was established in 1948 following the passing by Parliament of the Monuments and Relics Ordinance in 1946. The mandate of the commission is to provide for “the preservation of ancient, historical and natural monuments, relics and other objects of archaeological, ethnographical, historical or other scientific interest.” In 1962, this ordinance was upgraded into an act. The commission has the responsibility of ensuring the preservation, protection, and promotion of Sierra Leone’s cultural heritage assets.</p>
7	<p>National Land Policy, 2015</p> <p>The National Lands Policy (NLP) lay down the principles that define how land shall be equitably and sustainably managed and used in the country. It gives direction to and defines the roles and responsibilities of various government and customary authorities, and other non-state actors, in land management. The NLP proposes to improve upon and strengthen the existing land administration systems and land laws, particularly by recognizing and working with the differentiated land tenure categories in the Western Area and the Provinces and enhancing the capacities of relevant institutions on mobilizing sufficient national and international resources to ensure the implementation of the National Land Policy.</p> <p>For sustainable land use, the NLP stipulates that land outside of protected forests, wildlife and wetlands is available for other uses such as agriculture and mining provided all the environmental conditions are met. Furthermore, the policy states that provided adequate compensation will be made in a reasonable time, the government may acquire land wherever and whenever appropriate, among other things.</p> <ul style="list-style-type: none"> • Secure and control areas of urban expansion • Facilitate urban renewal and redevelopment programmes. • Implement any rural or urban improvement programme. • Provide social infrastructure. • Supply promptly serviced or un-serviced lands at prices, which can secure socially and economically acceptable patterns of economic development. • Provide for national defence, national security, national health and conflict resolution, and • Protect areas of historical, cultural or ecological interest • Land administration in Sierra Leone is governed by a dual system of law, dispersed in about twenty statutes and regulations. • In the Western Area of Sierra Leone, land tenure is governed by Property Statutes. The land is either State (publicly) owned or privately owned. The right of the state to public land is inalienable and indefeasible. Rights of occupation over public land may be granted under warrant. The state has the power, conferred by the Unoccupied Lands Act, Cap 117, to take possession of unoccupied land • In the provinces, customary Law co-exists with the statute. The recognition of the force of customary law in the provinces is established by section 76 (1) of the Courts Act 1965. <p>Through customary law, ownership of land is vested in the chiefdoms and communities; and can never be owned freehold. Land always belongs to the communities under the different forms of tenure under customary law. This principle is established by the Chiefdom Councils Act as well as by Section 28 (d) of the Local Government Act 2004. As the current project will engage in the reversion of some land use from urban/residential to natural and wildlife, the stipulations of this policy will be applicable and shall have to be considered.</p>
8	<p>National Resettlement Policy, 2021</p> <p>Provides a framework for identifying, engaging, and compensating Project Affected Persons. The policy regulates activities undertaken by government interventions that may lead to physical and/or economic displacement and require compensation.</p>
9	<p>National Policy on Gender Mainstreaming, 2000</p>

	The overall goal of the policy is to mainstream gender concerns in the national development process to improve the social, legal, political, economic, and cultural condition of the population, particularly marginalized groups. Its aim is to provide for policy makers and other actors in the development field, reference guidelines for identifying and addressing gender concerns, particularly when taking policy decisions to redress imbalances which arise from existing inequalities; to promote access to and control over economically significant resources and benefits, or to ensure the participation of both women and men in all stages of development.
10	<p>National Energy Policy, 2010</p> <p>The objective of the National Energy Policy is to ensure the provision of modern energy services for increased productivity, wealth creation and improved quality of life for all Sierra Leoneans. The energy supply sub-sectors covered by this policy are electricity, petroleum, and renewable energy, with a focus on increasing modern energy supplies for Sierra Leone.</p> <p>The policy is geared towards increasing supplies, through a comprehensive reform of the power sector, including liberalization of the sub-sector, attracting private investments and involvement and putting in place more effective mechanisms for monitoring and control. For the petroleum sub-sector, the upstream focuses on oil exploration, while the downstream addresses measures to reduce costs, without compromising the security of supply.</p>
11	<p>The Employment and Labour Law 2020</p> <p>The law consolidated existing laws relating to labor, employers, trade unions and industrial relations. The Act covers common issues in employment and labor law regulations such as terms and conditions of employment, employee representation and industrial relations, discrimination, maternity and family leave rights and business sales. It provides for the rights and duties of employers and workers; legal or illegal strike; guarantees trade unions and freedom of associations and establishes the Ministry of Labour to mediate and act in respect of all labor issues. The Act explicitly states that it is the duty of an employer to ensure that every worker works under satisfactory, safe and healthy conditions.</p>

3.7 Relevant Legal and Regulatory Framework

The relevant environmental laws and regulations to guide the project the project cycle is presented in Table 7 and these include

Table 7: Relevant Legal Framework Applicable to the Proposed Project

No.	Legal and Regulatory Framework
1.	<p>Constitution of Sierra Leone 1991</p> <p>The Constitution states that the state shall, among other things, within the context of the ideals and objectives for which provisions are made in the Constitution, harness all the natural resources of the nation to promote national prosperity, manage and control the national economy well, and be governed through the Executive, Legislative, and Judicial branches of Government.</p> <p>Section 106(1) of the Constitution of Sierra Leone gives Parliament the power to make laws which shall be exercised by bills passed by Parliament and signed by the President. Subject to certain provisions, a bill shall not become law unless it has been duly passed and signed in accordance with the Constitution. An act signed by the President shall come into operation on the date of its publication in the Gazette or such other date as may be prescribed therein or in any other enactment.</p>
2.	<p>Environment Protection Agency Act, 2022</p> <p>The Environmental Protection Agency (EPA) Act 2008 amended in 2022 is the government of Sierra Leone’s overarching legislation that deals with the protection of the environment. The Environment Protection Agency was established with a Board of Directors set up as its governing body. Subject to this Act, the control and supervision of the Agency is the responsibility of the Board, whose administrative functions as stipulated by the EPA, 2008. The functions include the following, but not limited to:</p> <ul style="list-style-type: none"> • Ensure compliance with prescribed environmental impact assessment procedures in the planning and execution of development projects

No.	Legal and Regulatory Framework
	<ul style="list-style-type: none"> • Coordinating and monitoring the implementation of national environmental policies relating to Sierra Leone. • Providing policy guidance and advice to ensure the efficient implementation of the functions of the Agency so as to enhance its overall performance. • Facilitating co-operation and collaboration among Government Ministries, local authorities and other governmental agencies, in all areas relating to environmental protection. • Coordinating environmentally related activities as well as serving as the focal point of national and international environmental matters, relating to Sierra Leone. <p>The act is applicable to all subcomponents under the Sierra Leone WARDIP SOP2 in Sierra Leone. There are EPA requirements for licensing. The project is expected to satisfy requirements of the Environment Protection Agency Sierra Leone (EPA-SL) for the issuance of an EIA license.</p>
3.	<p>Factories Act, 1974 The Factories Act of 1974 focuses on ensuring the Occupational Health and Safety of workers in factories, including aspects such as machine safety, working conditions, and inspections.</p>
4.	<p>The Sierra Leone Local Content Agency Act, 2016 [No. 3 of 2016] The Sierra Leone Local Content Agency Act of 2016 aims to promote the participation of local businesses and citizens in the country's economy by giving preference to Sierra Leoneans in employment and ownership of businesses. The Project must adhere to the Act's provisions when hiring professionals and procuring goods and services, prioritizing Sierra Leonean providers when possible.</p>
5.	<p>The Local Government (Amended) Act, 2022. The Local Government (Amendment) Act of 2022 focuses on decentralizing government functions by establishing and empowering local councils with legislative and executive powers to promote local development and welfare. The Act emphasizes the role of local authorities as representatives of the central government for community development.</p>
6.	<p>The Sierra Leone Maritime Administration (Amendment) Act, 2007 This is an act to establish an autonomous body for the registration of ships and other vessels, the licensing and safety of maritime personnel and for the regulation and development generally of maritime, coastal and inland water transport and for other matters connected therewith. This act establishes the Maritime Administration to regulate and develop improved standards of performance, practice and safety in the shipping industry in Sierra Leone, including the coastal and in-land water transport system, and in the maritime environment.</p>
7.	<p>The Fisheries and Aquaculture Act of 2018 and its accompanying Regulations of 2019 The Fisheries and Aquaculture Act of 2018 and its accompanying Regulations of 2019 aim to ensure the sustainable use, management, and development of fisheries and aquaculture in Sierra Leone for long-term conservation and socioeconomic benefits. Key elements of the Act include Governance and administration, Management and conservation, Licensing and artisanal fisheries, Monitoring and enforcement, Prohibitions, Aquaculture development, Legal procedures and liabilities.</p>
8.	<p>National Electricity Act, 2011 This Electricity Act was established as an Act to incorporate the Electricity Generation and Transmission Company (EGTC) and to establish the Electricity Distribution and Supply Authority (EDSA) to provide for other related matters.</p>
9.	<p>National Protected Area Authority and Conservation Trust Fund Act, 2012 This Act provides for the establishment of the National Protected Area Authority (NPAA) and Conservation Trust Fund. The purpose of the Act is to promote biodiversity conservation, wildlife management, research and to provide for the sale of eco-systems services in national protected areas. Part III of the Act states the role of the NPAA, which is to exercise oversight and authority over National Parks and Protected Areas designated for conservation purposes and to promote sustainable land-use practices and sustainable environmental management. Furthermore, section III (f) states that another function of the NPAA is to collaborate with other stakeholders in developing a national REDD+ Strategy and to promote REDD+ projects in Sierra Leone as a sustainable source of financing for protected area</p>

No.	Legal and Regulatory Framework
	management. Section III (xi) promotes co-management of natural resources for the NPAA within and outside national protected areas with local forest edge communities.
10.	<p>National Biodiversity Strategy and Action Plan 2017–2026</p> <p>The revised NBSAP (2017–2026) for Sierra Leone has been developed based on national needs and priorities for the implementation of the United Nations Convention on Biological Diversity (CBD) objectives and Aichi Targets.</p>
11.	<p>Public Health Act, 2004</p> <p>The Public Health Act, 2004 is a key piece of legislation governing public health matters in Sierra Leone. It amends the earlier Public Health Ordinance of 1960, primarily by updating the fines and penalties for violations of public health regulations. The Act is designed to protect and promote the health and safety of the population by regulating sanitation, hygiene, disease control, and other aspects of public health.</p>
12.	<p>Persons with Disability Act, 2011</p> <p>According to Section 24(2) of this act, public buildings/facilities that are accessed by the public are to be disability friendly, while Section 14 (2) enjoins the government to adapt existing structures to enhance access for persons with disability. In Sections 20 and 21 of the Act, it is an offence to deny a person contracts and employment opportunities based on disability.</p>
13.	<p>Child Right Act, 2007</p> <p>Part III of the Act, the Employment of Children stipulates that the minimum age at which free education ends, when children can engage in full time employment or apprenticeship is at fifteen (15 years) though the Act allows children to engage in light work (non-strenuous and non-hazardous work) at the age of thirteen (13) but only persons eighteen (18) years and above can engage in hazardous work such as civil works. The Act which prohibits children from working at night also set conditions for apprenticeship.</p>
14.	<p>The Sierra Leone Local Content Agency Act, 2016</p> <p>The act establishes the Sierra Leone Local Content Agency to provide for the development of Sierra Leone local content to promote the ownership and control of productive sectors in the economy by citizens of Sierra Leone. The primary objective of the agency is to promote Sierra Leone local content development by effectively and efficiently managing the administration and regulation of Sierra Leone local content development. Some requirements stated in the act include those mandating the use of a minimum percentage of Sierra Leonean labour in professional cadres in all contracts awarded above a threshold value as stipulated by the minister and assisting local contractors and Sierra Leonean companies to develop their capabilities to attain the goal of developing Sierra Leone local content in the sectors covered by this act.</p>
15.	<p>Local Government Act, 2004</p> <p>This act deals with the establishment and operation of LCs around the country to enable meaningful decentralization and devolution of government functions. It stipulates that an LC shall be responsible generally for promoting the development of the locality and the welfare of the people in the locality with the resources at its disposal and with such resources and capacity as it can mobilize from the central government and its agencies, national and international organizations, and the private sector. The LC should initiate and maintain programs for the development of basic infrastructure and provide works and services in the locality. An LC shall cause to be prepared a development plan which shall guide the development of the locality. The schedules to the Local Government Act outline the activities of various MDAs that have been devolved to LCs.</p>
16.	<p>Local Government Amendment Act, 2017</p> <p>The Act amends the Local Government Act, 2004, to provide for the addition of new Districts created under the provinces (Administrative Division) Order, 2017 and other related matters.</p>
17.	<p>Monument and Relics Act, 1962</p> <p>The Monuments and Relics Commission was established in 1948 following the passing by Parliament of the Monuments and Relics Ordinance in 1946. The mandate of the commission is to provide for “the preservation of ancient, historical and natural monuments, relics and other objects of</p>

No.	Legal and Regulatory Framework
	<p>archaeological, ethnographical, historical or other scientific interest.” In 1962, this ordinance was upgraded into an act. The commission has the responsibility of ensuring the preservation, protection, and promotion of Sierra Leone’s cultural heritage assets.</p> <p>Several restrictions may be placed on projects because of cultural considerations. ESS8 recognizes that cultural heritage provides continuity in tangible and intangible forms between the past, present, and future. Cultural heritage, in its many manifestations, is important as a source of valuable scientific and historical information, as an economic and social asset for development, and as an integral part of people’s cultural identity and practice. Chance finds may occur during construction. A chance find is any unanticipated discovery or recognition of cultural heritage. If they occur, they will be reported to the Monuments and Relics Commission.</p>
18.	<p>Customary Land Rights Act 2022</p> <p>Land administration in Sierra Leone is governed by a dual system of law, dispersed in about twenty statutes and regulations. In the Western Area of Sierra Leone, land tenure is governed by Property Statutes. The land is either State (publicly) owned or privately owned. The right of the state to public land is inalienable and indefeasible. Rights of occupation over public land may be granted under warrant. The state has the power, conferred by the Unoccupied Lands Act, Cap 117, to take possession of unoccupied land. In the provinces, customary law co-exists with statutes. The recognition of the force of customary law in the provinces is established by section 76 (1) of the Courts Act 1965. Through customary law, ownership of land is vested in the chiefdoms and communities; and can never be owned freehold. Land always belongs to the communities under the different forms of tenure under customary law. This principle is established by the Chiefdom Councils Act as well as by Section 28 (d) of the Local Government Act 2004.</p>
19.	<p>Prevention and Control of HIV/AIDs Act, 2007</p> <p>It was enacted to provide a legal framework for the prevention, management and control of HIV and AIDS, for the treatment, counselling, support and care of persons infected with, affected by or at risk of HIV and AIDS infection. It urges the government to assume responsibility for educating and providing information to all citizens on HIV and AIDS, safe practices and procedures, testing, screening and access to healthcare facilities within the country. It prescribes safe practices and procedures to enhance the prevention of transmission and prohibits compulsory testing. The law also prohibits discriminatory policies in the workplace and schools, restriction of movement based on HIV status, and denial of burial rites.</p> <p>The act is applicable for the prevention of probable labour influx induced incidence of HIV and AIDS infection and other infectious diseases among project Site Workers (skilled/unskilled) the community members.</p>
20.	<p>Regulation of Wages and Industrial Relations Act 1971 (No. 18)</p> <p>These regulations specify the collective agreement between Employers in the Building and Construction Trade Group in the Republic of Sierra Leone involving the following Workers Unions:</p> <ul style="list-style-type: none"> o Artisans, Public Works, and Services Employees Union. o General Construction workers Union. o Skilled and Manual Production workers Union; and o Sierra Leone Union of Securities, Watchmen and General Workers Union <ul style="list-style-type: none"> • The Regulation of Wages and Industrial Relations Act 1971 (No 18) places wage negotiations under the Trade Group Council. Wages which are to be negotiated every three years under this Act. • Conditions of Service issues including Hours of Work (Clause 9), modalities for payment of overtime (Clause 13), Annual Leave and Leave Allowance (Clause 15) and Maternity with full pay for maximum of twelve weeks (Clause 17), Dirty Work Allowance for workers who come into contact with sewage, rubbish, wood, dust and toxic materials (Clause 56) and • Termination of Works Contract (Clause 26) is outlined explicitly in the Act.

No.	Legal and Regulatory Framework
	<ul style="list-style-type: none"> Health and Safety issues are covered under Clause 37 and 51 of this regulation. They include the Employer providing raincoats, goggles, welding masks, helmets and other safety gear as well as toilet and hand washing facilities for employees. Workers’ right to form unions and engage collective bargaining are recognized in Clause 30 while right to representation is conferred on workers under Clause 32.
21.	<p>The National Social Insurance Trust (NASSIT) Act 2001 The National Social Insurance Trust (NASSIT) Act 2001 covers benefits and pensions for all sectors. Section 24(1) stipulates that regardless of the existence of a private/company pension or provident fund, employers and employees are subject to the NASSIT Act. It is expected that all workers in the project will be treated in conformity to the requirements of this Act.</p>
22.	<p>Motor Vehicle (Third Party Insurance) Ordinance, Cap 133 This Act makes it an offence to operate a vehicle without at least a third-party insurance cover and specifies sanctions for offenders (Section 3). According to the Act no motor vehicle will be licensed until it is insured.</p>
23.	<p>Road Traffic Act, 2007 The Act ensures public and road safety. Various offenses under this Act are punishable by spot fines, and imprisonment or both. By the Act, driving unlicensed vehicles, defective vehicles or overloaded vehicles are offences. Part III of the Act, Licensing of Drivers, makes driving without a valid license corresponding to the class of vehicle an offence. Part III also specifies the age limit for driving various categories of automobiles, starting from above eighteen (18) years for private cars and good and service trucks to above 21 years for public service vehicles and heavy-duty trucks (Part III Section 2). Dangerous and careless driving, driving under the influence of alcohol and drugs have been specified as offenses under this Act. In addition, Section 120 and 121 under Part XI – Restrictions on Road use for Road Safety, provides areas, including along footpaths and places reserved for persons with disability, where parking is prohibited.</p>

3.8 Gaps between World Bank ESF and National Legislation

There are some gaps between existing laws of the country and WB ESSs. Gaps between Government of Sierra Leone laws including policies related to environmental and social risk management and suggested gap filing measures are given in Table 8.

Table 8: Gaps between Government of Sierra Leone laws and World Bank ESSs

Scope/Objective	Description of Bank Policy	Description of the main Government of Sierra Leone Regulation	Gaps Identified	Gap Bridging Actions
ESS 1: Assessment and Management of Environmental and Social Risks and Impacts				
<ul style="list-style-type: none"> • Identify, evaluate and manage the environment and social risks and impacts of the project in a manner consistent with the ESSs. • To adopt a mitigation hierarchy approach to: <ul style="list-style-type: none"> ✓ Anticipate and avoid risks and impacts. ✓ Where avoidance is not possible, minimize or reduce risks and impacts to acceptable levels. ✓ Once risks and impacts have been minimized or reduced, mitigate; and ✓ Where significant residual impacts remain, compensate for or offset them, where technically and financially feasible. 	<p>The standard provides guidance on assessing the Project’s potential environmental and social risks and impacts and addressing potential impacts through planning and mitigation hierarchy approach.</p>	<ul style="list-style-type: none"> • The Environment Protection Agency Act and its amendments (2022, 2010, 2008) provide for the effective protection of the environment and for other related matters. The Act alludes to ambient air, water and soil quality, the pollution of air, water, land and other forms of environmental pollution including the discharge of waste and the control of chemicals, toxic, and hazardous substances. • The Act requires certain categories of operations to carry out Environmental and Social impact assessment studies in order to obtain an EIA license. Such studies cover but are not limited to identifying environmental and social impacts of the project, mitigation measures and the preparation of environmental and social management and monitoring plans. Community consultations and grievance redress mechanisms are part of the process. The required management plan is the Public Consultation and Disclosure 	<p>Even though the regulation seeks to anticipate and mitigate/avoid risks and impacts, the Sierra Leone EPA Act lacks comprehensive social risk management, structured and continuous stakeholder engagement, grievance mechanisms, adaptive management practices, and tools like the Environmental and Social Commitment Plan, which are core to ESS1’s approach to safeguarding communities and the environment.</p>	<p>Projects in Sierra Leone funded by the World Bank generally implement additional safeguards and procedures to ensure compliance with ESS1:</p> <ul style="list-style-type: none"> • A GRM will be established, run, tracked and monitored by the MoCTI PCU and SPV. The MoCTI PCU and SPV will be strengthened to manage E&S risks proportionate to the nature and severity of the risks. The E&S competencies at the MoCTI PCU will include Recruit (1) one environmental and (1) one social (GBV) specialist. The SPV will recruit and maintain qualified staff, including one (1) Environmental Specialist and one (1) Social Specialist to oversee the implementation of Environmental, Social, Health and Safety Risk Management System (ESHSRMS). • Assistance/compensation will be provided for the parties affected by the government. • Implementing agencies will be fully involved in the project preparatory stage through

Scope/Objective	Description of Bank Policy	Description of the main Government of Sierra Leone Regulation	Gaps Identified	Gap Bridging Actions
		<p>Plan.</p> <ul style="list-style-type: none"> The Act advocates freedom of access to information, record keeping, education and public awareness, and highlights juridical proceedings and miscellaneous provisions. 		<p>consultations for them to become abreast with project components, and the roles they will play during implementation.</p> <ul style="list-style-type: none"> The capacities of the MoCTI PCU and relevant agencies staff on World Bank ESF will also be built at the early stage of project implementation to enable them to collaborate effectively in addressing this gap. Supervision and monitoring of implementation of the ESMP and the hierarchy of measures figuring in ESS1 should be ensured,
ESS2: Labor and Working Conditions				
<ul style="list-style-type: none"> To promote safety and health at work, fair treatment, non-discrimination, and equal opportunity of project workers including vulnerable workers such as women, persons with disabilities, children 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 	<p>ESS2 promotes fair treatment, non-discrimination, and provision of equal opportunities for workers engaged on projects it supports. It strongly encourages protection of all project workers, including vulnerable groups such as women, persons with disabilities, children (of working age) and migrant workers, contracted workers, and primary supply workers, as appropriate. It provides certain requirements that the project</p>	<p>The Employment and Employed Act (2023) provides for the consolidation and improvement of the law relating to labor and employment, and for all the matters necessary to promote equal opportunity and eliminate discrimination in employment and occupation. The Act covers the following matters: business; contract of employment or service; earnings; discrimination; employer; equal remuneration; national minimum wage; strike; trade dispute; violence and</p>	<p>The Sierra Leone Employment Act of 2023 likely addresses various elements to bring it closer to the WB ESS2 on labor and working conditions. However, it may still have areas of partial or total non-compliance, including enhanced grievance systems, comprehensive health and safety standards, reliable enforcement of anti-discrimination</p>	<p>For World Bank-funded projects, supplementary measures may be necessary to align with ESS2 requirements fully:</p> <ul style="list-style-type: none"> The project will adopt and enhance the project GRM dedicated to labor, which addresses concerns promptly. An Occupational health and Safety plan and a Labor Management Plan tackling working conditions, occupational health and safety, child labor, etc., have been developed as part of this report to guide project

Scope/Objective	Description of Bank Policy	Description of the main Government of Sierra Leone Regulation	Gaps Identified	Gap Bridging Actions
<p>consistent with national law.</p> <ul style="list-style-type: none"> • To provide project workers with accessible means to raise workplace concerns. • OHS Hazard identification and right of employees to remove themselves from such workplaces without being punished. 	<p>must meet in terms of working conditions, protection of the work force (especially the prevention of all forms of forced and child labor), and provision of a grievance mechanism that addresses concerns on the project promptly and uses a transparent process that provides timely feedback to those concerned.</p> <p>Under ESS 2, workplace processes will be put in place for project workers to report work situations that they believe are not safe or healthy, and to remove themselves from a work situation which they have reasonable justification to believe presents an imminent danger to their life or health. Project workers who remove themselves from such situations will not be required to return to work until necessary remedial action to correct the situation has been taken. Project workers will not be retaliated against or otherwise subject to reprisal or negative action for such reporting or removal.</p>	<p>harassment; wage.</p> <p>The Constitution of Sierra Leone (1991) Act No. 6 guarantees fair working conditions, equal pay for equal work, and fair compensation. The Factories Act, 1974, which applies to factories, defined in the Act as any premises in which or within the close or curtilage or precincts of which persons are employed in manual labor.</p>	<p>policies, and guaranteed employment contracts. The Factories Act (1974) does not specifically cover activities under this project and is not enforced outside of industries.</p>	<p>implementers in managing labor-related issues in addition to Emergency procedures.</p> <ul style="list-style-type: none"> • Labor Management Procedures (LMP) including workers GRM as part of this ESMF will be prepared, consulted upon, disclosed and implemented by the Project to meet the requirements of the ESS. • Workers will be sensitized on the LMP and their rights to remove themselves from unsafe workplaces, and the fact that they will not be retaliated against if they do so in line with the LMP/ESS 2 provisions.

Scope/Objective	Description of Bank Policy	Description of the main Government of Sierra Leone Regulation	Gaps Identified	Gap Bridging Actions
ESS3 Resource Efficiency and Pollution Prevention and Management				
<p>To achieve the sustainable use of resources, including implementing measures that avoid or reduce pollution resulting from project activities</p>	<p>The ESS3 provides requirements for projects to achieve the sustainable use of resources, including energy, water, and raw materials, as well as implement measures that avoid or reduce pollution resulting from project activities. The standard places specific consideration on hazardous wastes or materials and air emissions (climate pollutants) given that the current and projected atmospheric concentration of greenhouse gases (GHG) threatens the welfare of present and future lives.</p>	<p>In addition to the Environmental Protection Act and its amendments, the National Environmental Policy and its amendment aim to promote sustainable resource use, reduce waste, and prevent environmental degradation through policies to control pollution from industrial, agricultural and urban sources. The National Water Resources Management Agency Act provides a framework for the sustainable use and conservation of water resources, with a focus on protecting water quality and preventing pollution. The act highlights regulation of water withdrawals, waste discharge, and conservation practices. The National Policy Roadmap on Integrated Waste Management Act incorporates management of municipal solid waste, hazardous healthcare waste, industrial waste, liquid waste and waste electrical and electronic equipment. The National Renewable Energy Policy encourages the development of renewable</p>	<p>While Sierra Leone’s environmental policies offer a foundation for addressing resource efficiency and pollution, key gaps relative to ESS3 requirements include the lack of rigorous resource efficiency targets across sectors; limited enforcement of pollution control standards with sector-specific guidelines, minimal frameworks for hazardous waste and materials management, and weak monitoring, reporting and enforcement mechanisms for continuous improvement.</p>	<p>Relevant WB EHS guidelines will be adopted to achieve sustainable use of resources and reduce pollution from the construction, operation, and decommissioning works. These will be specified in ESMPs, and contractors will be required to adopt relevant provisions in their site-specific Environmental Management Plans.</p>

Scope/Objective	Description of Bank Policy	Description of the main Government of Sierra Leone Regulation	Gaps Identified	Gap Bridging Actions
		energy, supports pollution reduction and promotes the efficient use of resources.		
ESS4 Community Health and Safety				
<ul style="list-style-type: none"> • 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. • To promote quality and safety, and considerations relating to climate change, in the design and construction of infrastructure, including dams. • To ensure that safeguarding of personnel and property is carried out in a manner that avoids or minimizes risks to the project-affected communities. 	<p>This standard recognizes that project activities, project equipment and infrastructure increase the exposure of project stakeholder communities to various health, safety and security risks and impacts and thus recommends that projects implement measures that avoid or limit the occurrence of such risks. It provides further requirements or guidelines on managing safety, including the need for projects to undertake safety assessments for each phase of the project, monitor incidents and accidents and prepare regular reports on such monitoring. ESS4 also provides guidance on emergency preparedness and response.</p>	<p>The National Action Plan for Health Security in 2018, The Public Health Ordinance (1960) and Public Health Act (Amended in 2004) revise and consolidate all the laws and regulations pertaining to the prevention of disease, promote, safeguard, maintain and protect the health of humans and animals, and provide public health information to be disclosed to communities for related matters.</p>	<p>The regulations do not consider assessment of events and measures to deal with occurrences and emergencies. The regulations lack effective implementation strategies, emergency preparedness, community engagement, and integrated approaches.</p>	<p>Anticipated impacts from the project are assessed and mitigated as part of this ESIA/ESMP. Contractors will also be required to adopt requirements stated for health-related issues, including implementation of the proposed occupational and community health and safety plans. The MoCTI PCU and SPV shall ensure that:</p> <ul style="list-style-type: none"> • Projects undertake safety assessments for each phase, • Incidents and accidents are monitored and reported, and regular monitoring reports are prepared. • Incidents and accidents are investigated, and shortcomings are identified and taken into account to avoid such mishaps in the future. • An emergency preparation and response plan are prepared as part of this report and will be implemented.
ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement				

Scope/Objective	Description of Bank Policy	Description of the main Government of Sierra Leone Regulation	Gaps Identified	Gap Bridging Actions
<ul style="list-style-type: none"> • Avoid involuntary resettlement or, when unavoidable, minimize involuntary resettlement by exploring project design alternatives • Avoid forced eviction • Mitigate unavoidable adverse social and economic impacts from land acquisition or restrictions on land use by: (a) providing timely compensation for loss of assets at replacement cost; and (b) assisting displaced persons in their efforts to improve, or at least restore their livelihoods and living standards in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher. • Improve living conditions of poor or vulnerable persons who are physically displaced, through provision of adequate housing, access to services and facilities, and security of tenure. • Conceive and execute resettlement activities as sustainable development 	<ul style="list-style-type: none"> • Resettlement activities should be planned and implemented with appropriate disclosure of information, meaningful consultation, and participation of those affected. • Applies to permanent and temporary displacement, listing types of infringements • Applies to land users and owners • - Recognizes customary land ownership and the impacts of access restrictions on livelihoods. • Involuntary resettlement will refer to both physical displacement (relocation or loss of shelter) and economic displacement (loss of assets or access to assets that leads to loss of income sources or other means of livelihood) as a result of project-related land acquisition and/or restrictions on land use and will cover those who do not have formal claim to the land that they use or live on. 	<ul style="list-style-type: none"> • The 2015 National Land Policy (NLP) provides conditions for land acquisition, ownership, transfer, amount required for land lease and purchase etc. It went further to disclose the two inherited land tenure systems - dual land tenure (freehold in Freetown and leasehold in the provinces). Similarly, the National Land Policy Act and the Customary Land Rights (CLR) Act, 2022 also strengthen land governance in Sierra Leone. 	<ul style="list-style-type: none"> • Ownership is shown with a signed survey plan and letter/ a deed • Only those with legal rights are eligible for replacement land or compensation. • The act does not have a clear regulation or guideline for the preparation of the land acquisition and resettlement action plan. • Not clear how the security of tenure should be treated in the context of involuntary resettlement. 	<ul style="list-style-type: none"> • A Resettlement Framework (RF) will be prepared and annexed to this ESMF for the project to be adopted. Compensation will be based on full replacement value • All Project Affected Persons (PAPs), regardless of legal status, are included in compensation and assistance schemes. • Resettlement Plans (RPs) must ensure secure tenure at resettlement sites, with legal documentation provided. • Eligibility and entitlement outlined in the RF will be applicable for the Project. The eligibility criteria based in ESS5 include: (a) Who have formal legal rights to land or assets; (b) Who do not have formal legal rights to land or assets but have a claim to land or assets that is recognized or recognizable under national law; or (c) Who have no recognizable legal right or claim to the land or assets they occupy or use. • When there exist adequate information about the

Scope/Objective	Description of Bank Policy	Description of the main Government of Sierra Leone Regulation	Gaps Identified	Gap Bridging Actions
<p>programs, providing sufficient investment resources to enable displaced persons to benefit directly from the project, as the nature of the project may warrant.</p> <ul style="list-style-type: none"> • 				<p>Project locations, scope of investment and the corresponding risks, the Project will prepare, consult with stakeholders, disclose implement and monitor a Resettlement Plan and/or Livelihood Restoration Plan as per the requirement of ESS5, as stated in the RF.</p> <ul style="list-style-type: none"> • When implementing a project, the most stringent has to be materially consistent with ESS5. If there is a difference or conflict between Sierra Leone’s national laws and ESS5 regarding land acquisition, resettlement, or compensation, the project must apply the requirements that are most protective of affected people, if they are consistent with ESS5. • Establishment of project-level GRMs, with clear procedures and transparency
ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources				
<ul style="list-style-type: none"> • To protect and conserve biodiversity and habitats. • To apply the mitigation hierarchy and the precautionary approach in 	<p>ESS6 promotes the conservation of biodiversity or natural habitats and supports the protection and maintenance of the core</p>	<p>The Forestry policy and its amendment in 2022, the National Protected Area Authority and Conservation Trust Fund Act (2012), the</p>	<p>Adequate provisions are covered by national laws and policies. While policies exist, there are challenges in</p>	<p>The project will take measures to protect and conserve biodiversity and habitats and to meet all requirements specified in the ESS6 – as the deployment of submarine</p>

Scope/Objective	Description of Bank Policy	Description of the main Government of Sierra Leone Regulation	Gaps Identified	Gap Bridging Actions
<p>the design and implementation of projects that could have an impact on biodiversity.</p> <ul style="list-style-type: none"> To promote the sustainable management of living natural resources. 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. 	<p>ecological functions of natural habitats and the biodiversity they support. It also encourages projects to incorporate into their development, environmental and social strategies that address any major natural habitat issues, including identification of important natural habitat sites, the ecological functions they perform, the degree of threat to the sites, and priorities for conservation.</p>	<p>National Biodiversity Strategy and Action Plan, the Conservation of Wildfire policy are policies that provide measures for protecting biodiversity and ensuring the sustainable management of living natural resources. They promote co- management activities that require working with local communities to take governance actions that reduce the risk of biodiversity loss. The Forestry Act (1988) and the Forestry Regulation (1990). The Act is being updated.</p>	<p>implementing and enforcing these policies effectively, and challenges in conducting comprehensive assessment and monitoring, especially with the lack of up-to-date data and long-term financing.</p>	<p>and terrestrial cables that may interact with natural habitats, including sensitive coastal and marine ecosystems. These environments may support critical biodiversity, such as mangroves, seagrass beds, coral reefs, marine fauna, and other coastal wetlands that provide essential ecosystem services and underpin local livelihoods. The ESMF includes screening procedures to identify subprojects that may affect natural habitats or biodiversity. Where such risks are identified, site-specific instruments — including ESIA, ESMPs, and Biodiversity Management Plans (BMPs) — will be prepared to define detailed measures for avoidance, minimization, and restoration</p>
ESS8 Cultural Heritage				
<ul style="list-style-type: none"> To protect cultural heritage from the adverse impacts of project activities and support its preservation. To address cultural heritage as an integral aspect of sustainable development. To promote meaningful consultation with stakeholders regarding cultural heritage. To promote the equitable 	<p>This standard sets out general provisions on cultural heritage preservation and recommends protecting cultural heritage from the adverse impacts of project activities. It addresses physical or tangible cultural resources, which are defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that</p>	<p>The Environmental Protection Agency Act and its amendments include provisions for cultural heritage in the context of ESIA (mandates consideration of cultural heritage in project planning). The National Land Policy 2015 recognizes the importance of cultural and historical sites, encouraging the integration of cultural heritage considerations</p>	<p>National regulations and policies do not sufficiently address cultural heritage as an integral part of sustainable development and promotion of equitable sharing of benefits. The policies have limited recognition and protection of</p>	<p>Stipulations in ESS8 will be strictly adhered to. Adverse impacts on cultural heritage from the project activities will be identified in the ESIA, and provisions will be made to support its preservation through the proposed mitigation measures. All contracts will include a Chance Find Procedure. Contractors shall be instructed</p>

Scope/Objective	Description of Bank Policy	Description of the main Government of Sierra Leone Regulation	Gaps Identified	Gap Bridging Actions
<p>sharing of benefits from the use of cultural heritage.</p>	<p>have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be in urban or rural settings, and may be above or below ground, or underwater. It also addresses intangible cultural heritage such as practices, representations, expressions, instruments, objects and cultural spaces that communities recognize as part of their cultural heritage. Projects involving significant excavations, demolition, movement of earth, flooding, or other environmental changes are to take cognizance of this standard in the ESMF.</p>	<p>in development projects. The Monuments and Relics Act (1962, amended in 1967) also provides for the cultural heritage of archaeological, historical, and other scientific interest.</p>	<p>indigenous people’s cultural heritage and lack a structured mechanism for community involvement and benefit-sharing in heritage management. The policies also lack a clear emergency procedure for cultural heritage protection. Intangible cultural heritage is not covered in Sierra Leonean legislation either.</p>	<p>about the importance of preserving archeological and cultural heritage, the needed measures and procedures, including the Chance Find Procedure.</p>
ESS10 Stakeholder Engagement and Information Disclosure				
<ul style="list-style-type: none"> To establish a systematic approach to stakeholder engagement that will help the borrower identify stakeholders and build and maintain a constructive relationship with them as project-affected parties. To assess the level of stakeholder interest and support for the project and to enable stakeholders’ 	<p>ESS10 seeks to encourage open and transparent engagement between the borrower and the project stakeholders PAP throughout the project lifecycle. The standard establishes a systematic approach to stakeholder engagement that potentially helps the borrower to identify stakeholders and build and maintain a constructive</p>	<p>The EPA Act (2022) requires parties seeking permits to implement environmentally sensitive projects to develop an ESIA and organize public disclosures following procedures that allow stakeholders at different levels to understand sources of risks and agree with proposed measures for monitoring and mitigation.</p>	<p>Sierra Leone regulations cover some aspects of stakeholder engagement, but significant gaps exist in comparison with ESS10, such as the lack of continuous engagement through all project phases, inadequate mechanisms to ensure inclusive consultation,</p>	<p>Aligning with ESS10 would require strengthening stakeholder engagement:</p> <ul style="list-style-type: none"> The project shall develop a standalone Stakeholder Engagement Plan (SEP) that sets a plan for consultations throughout the project lifecycle, with all categories of stakeholders including vulnerable groups. The SEP shall also include a GRM

Scope/Objective	Description of Bank Policy	Description of the main Government of Sierra Leone Regulation	Gaps Identified	Gap Bridging Actions
<p>views to be considered in project design and environmental and social performance.</p> <p>To promote and provide means for effective and inclusive engagement with project-affected parties throughout the project life cycle on issues that could potentially affect them.</p> <ul style="list-style-type: none"> • 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. • To provide project-affected parties with accessible and inclusive means to raise issues and grievances and allow the borrower to respond to and manage such grievances. 	<p>relationship with them, as well as disclose information on the environmental and social risks and impacts to stakeholders in a timely, understandable, accessible, and appropriate manner and format. It recommends that stakeholder engagements commence as early as possible in the project development process and continue throughout the lifecycle of the Project. This allows for stakeholders' views to be considered in project design and environmental and social performance. The borrower is also expected to implement a grievance mechanism to receive and facilitate resolution of concerns and grievances.</p>	<p>The Local Government Act and its amendment in 2022 promotes community participation in local development and governance and encourages city councils to involve residents in decision-making, particularly for infrastructure or services impacting the local community. The Right to Information Act (2013) provides for the disclosure of information held by public authorities or people providing services to the public. It requires public disclosure processes that foster transparency and meaningful engagement.</p>	<p>especially for vulnerable groups, limited provisions for proactive information disclosure to the public, absence of formal, accessible, and effective grievance mechanisms and weak documentation and reporting requirement for engagement activities.</p>	<p>based on the existing grievance redress mechanism for resolving grievances for the Sierra Leone WARDIP SOP2</p> <ul style="list-style-type: none"> • The GRM is a decentralized and transparent system which ensures quick resolution of complaints and disputes; it also has the structure for disclosing vital information to requisite stakeholders. • It also provides a means for effective and inclusive engagement. This instrument which satisfies almost all the requirements of ESS10 will be applied during project implementation to bridge the gaps in national regulations and policies.

3.9 Relevant International Maritime Environmental and Protocols

The deployment of new submarine cable systems landing stations and associated infrastructure in Sierra Leone is subject to a comprehensive set of international environmental and social protocols, conventions, and standards. These frameworks are designed to ensure that such infrastructure is developed sustainably, with minimal harm to people and the environment, and with due consideration for social inclusion and stakeholder engagement.

- **United Nations Convention on the Law of the Sea (UNCLOS):** Governs activities in international waters, including the laying of submarine cables. Sierra Leone must comply with UNCLOS provisions for cable deployment within its Exclusive Economic Zone (EEZ) and territorial waters
- **International Cable Protection Committee (ICPC) Guidelines:** Provides best practices for cable routing, protection, and recovery, emphasizing avoidance of sensitive marine habitats and minimizing disruption to marine life
- **RAMSAR Convention (Wetlands Protection):** Protects internationally important wetlands, such as the Sierra Leone River Estuary, ensuring that cable landings do not harm critical habitats
- **Basel Convention (Hazardous Waste):** Regulates the transboundary movement and disposal of hazardous waste, including e-waste from cable equipment and landing stations
- **Stockholm Convention (Persistent Organic Pollutants):** Controls the use and disposal of chemicals that can persist in the environment, relevant for managing pollutants from network equipment
- **Convention on Biological Diversity (CBD):** Requires conservation and sustainable use of biodiversity, influencing project siting and mitigation measures
- **UN Framework Convention on Climate Change (UNFCCC):** Commits Sierra Leone to climate change mitigation and adaptation, including climate-resilient infrastructure design
- **ILO Conventions:** Sierra Leone adheres to International Labour Organization standards on labor rights, occupational health and safety, and protection against forced and child labor
- **Convention on the Rights of the Child:** Ensures that infrastructure projects do not harm children's rights, including access to services and protection from exploitation
- **Convention on the Rights of Persons with Disabilities (CRPD):** Mandates accessible infrastructure and equal participation for people with disabilities
- **Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW):** Requires gender-sensitive approaches, including protection against gender-based violence and ensuring women's access to project benefits
- **SOLAS (Safety of Life at Sea, 1974):** Sets safety standards for ships, including those used in cable deployment.
- **Convention on the International Regulations for Preventing Collisions at Sea (COLREG), 1972:** International Regulations for Preventing Collisions at Sea, relevant for navigation of cable-laying ships.
- **African Convention on the Conservation of Nature and Natural Resources (adopted in 1968):** The objective of the Convention is to encourage conservation, utilization and development of soil, water, flora and fauna for the present and future welfare of mankind, from an economic, nutritional, scientific, educational, cultural and aesthetic point of view

3.10 Institutional Framework

The following government institutions associated with the WARDIP SOP2 project are described on the potential environmental and social issues. The role of each institution, with respect to the implementation and monitoring of the ESMF, is summarized in table 9.

Table 9: Project Institutional Framework

Institution	Role and Responsibilities
Ministry of Finance (MoF)	The MoF has a broad responsibility for Project implementation and compliance with the legal agreement between the Bank and the GoSL. It has a strategic oversight of financial management, procurement, and monitoring and evaluation functions of the project. The Ministry of Finance is the organ of government responsible for financial management of government revenue and other finances. It is the beneficiary of the project.
Ministry of Communications, Technology and Innovation (MoCTI)	The Ministry of Communications, Technology and Innovation (MoCTI) in Sierra Leone is the government's lead agency responsible for driving the country's digital transformation agenda, promoting the development and adoption of information and communication technologies (ICT), and fostering innovation across sectors. MoCTI is the Implementing Agency for WARDIP SOP 2.
National Communications Authority (NatCA)	The National Communications Authority (NatCA) is Sierra Leone's independent regulatory authority for the communications sector, established to oversee, regulate, and promote the development of telecommunications, digital infrastructure, and related services.
Ministry of Environment and Climate Change (MoECC)	The Ministry of Environment in Sierra Leone is responsible for overseeing and coordinating matters related to environmental protection and management in the country. Its primary role is to provide policy direction, guidance, and support to promote sustainable development practices that safeguard the environment and natural resources.
Ministry of Fishery and Marine Resources	The MFMR is responsible for meeting the legal obligations set out in the Fisheries and Aquaculture Act (2018) and related regulations (2019). It governs Sierra Leone's fisheries and aquaculture sectors and is organized into divisions, namely, Statistics; Policy and Planning; Fish Processing and Quality Management; Monitoring, Control, and Surveillance; Marine Artisanal Fisheries; and Inland Fisheries and Aquaculture.
The Environment Protection Agency (EPA)	EPA is a statutory agency for the protection of the environment and for other related matters. The EPA has the overall responsibility of permitting and monitoring the project's compliance with the standards and legislation relating to environment, and the implementation of the ESMF as stipulated in the revised EPA Act of 2022
Sierra Leone Maritime Administration	The Sierra Leone Maritime Administration (SLMA) is the national authority responsible for regulating and overseeing maritime affairs in Sierra Leone. It was established by an Act of Parliament in July 2000 as an autonomous body under the Ministry of Transport and Aviation.
The Sierra Leone Ports and Harbours Authority	The Sierra Leone Ports and Harbours Authority role is mainly to facilitate and regulate port and harbor operations that the project may need (e.g., vessel access, berthing, pilotage, staging), and to coordinate maritime safety within port limits.

Institution	Role and Responsibilities
The National Protected Area Authority (NPAA)	The National Protected Area Authority (NPAA) is the statutory body that manages national parks, protected areas, and designated wetlands. For a new submarine cable and a cable landing station, NPAA’s role triggered where the alignment, shore approach, landing works, or associated on-shore infrastructure overlap with, are within, or could materially affect protected areas particularly the Western Area Peninsula National Park (WAPNP) and any designated wetlands/Ramsar sites.
Ministry of Lands, Housing and Country Planning (MLHCP)	Responsible for the issuance of building permits. Ensures that construction meets safety and building standards in line with national regulation. Provide policy direction and guidance for effective planning, sound environmental protection, and land management. The MLHCP is responsible for ensuring sustainable management and utilization of land re-sources, and the project may re-quire land acquisition or use of land for infrastructure development.
Ministry of Labour and Social Security (MLSS)	<p>The Ministry contributes to Sierra Leone's socio-economic development by developing and implementing policies, legislation, and programs focused on promoting social security and protection, preventing workplace accidents and diseases, fostering sound labor and employment relations, enhancing vocational guidance and job counseling, upholding the dignity of employers and employees, and maintaining essential labor statistics.</p> <p>In the context of the project, ESIA/ESMP, MLSS’s role lies in monitoring labor practices, overseeing employment conditions for workers and the implementation of the LMP, and ensuring occupational health and safety standards through implementation of the OHS Plan.</p>
Ministry of Health and Sanitation (MoHS)	MoHS’ vision is to ensure a functional national health system delivering efficient, high-quality healthcare services that are accessible, equitable and affordable for everybody in Sierra Leone and the overall goal is to maintain and improve the health of its citizens (MoHS, 2021). MoHS is responsible for ensuring the health and well-being of citizens, and the project may have implications for public health, particularly in terms of key health- related issues
Ministry of Local Government and Rural Development (MLGRD)	MLGRD is mandated to provide an effective link between national development priorities and local-level development initiatives and to uphold a democratic local government system reflecting a decentralized approach and facilitating the provision of efficient and effective delivery of quality services at the local level (MLGRD, 2021). The MLGRD is responsible for promoting local development and decentralization, and the project may require coordination with local authorities to ensure that project benefits are shared equitably.
Ministry of Social Welfare, Gender and Children’s Affairs (MSWGCA)	The Ministry is responsible for responding to the social needs pertaining to Gender inequalities, social depravity of groups like the disabled, women’s rights, children’s rights, religious rights among others in Sierra Leone.
Ministry of Tourism and Cultural Affairs (MTCA), Monuments and Relics Commission	<p>The Ministry promotes sustainable tourism for economic growth and socio-cultural empowerment to preserve, protect and promote cultural diversity with a view to reviving and strengthening national consciousness, understanding and appreciation of cultural heritage and artistic creativity, as well as enhance its contribution to poverty reduction and overall development.</p> <p>The Monuments and Relics Commission has the mandate of providing for the preservation of Ancient, historical and natural monuments, relics and other objects of archaeological, ethnographical, historical or other scientific interest. It has the</p>

Institution	Role and Responsibilities
	responsibility of ensuring the preservation, protection and promotion of Sierra Leone's cultural heritage assets. It will be responsible for making sure that project staff and workers, especially those working on earth movements and excavations, are to be inducted on the identification of potential heritage items/sites and the relevant actions for them with regards to the chance find procedure during the project induction.
Ministry of Works and Public Assets (MOWPA)	Responsible for the issuance of works guidelines for construction.
Western Area Rural District Council (WARDC)	The Western Area Rural District Council (WARDC) is a local government authority in Sierra Leone. It is one of the administrative units within the Western Area of Sierra Leone. The council governs and provides public services to areas within its jurisdiction. The Chairman is the head of WARD-C, supported by the Chief Administrator, who advises on the technical decision concerning the administration and general operations of the Council. The Chief Administrator supervises the professional staff of WARD-C and also serves as the vote controller ensuring prudent management of resources for council.
The National Disaster Management Agency (NDMA)	The NDMA was established in 2020 by the Disaster Management Department within the Office of National Security (DMD-ONS) by the National Disaster Management Agency Act of 2020 to manage disasters and similar emergencies throughout Sierra Leone; to establish national, regional, district and chiefdom disaster management committees; to establish a National Disaster Management Fund to provide finances for the prevention and management of disasters and similar emergencies throughout Sierra Leone; and to provide for other related matters (GoSL, 2020). The MLGRD is responsible for promoting local development and decentralization, and the project may require coordination with local authorities to ensure that project benefits are shared equitably.
Sierra Leone Roads Authority (SLRA)	The SLRA has the legal power to define the width of the right of way and to vest all rights to this land in the Authority. This includes land that is reserved for future road expansion and the installation of utility services like water pipes, electricity, and fiber cables.
Joint Maritime Committee (JMC), Sierra Leone	According to the Feed Salone Strategy for the Fisheries and Marine Resource Sectors in Sierra Leone report (2025), the JMC was established in 2009 by an MoU between the Office of National Security, the Ministry of Defence, the Sierra Leone Police, the MFMR, the Ministry of Finance, the National Revenue Authority, the SLMARAD, the Sierra Leone Ports and Harbours Authority, and the Immigration Department. This partnership was based on the understanding that protecting the ocean's natural resources and related food security are national security issues. The JMC supports operational activities including MCS and the MFMR's actions to counter IUU fishing. It runs a remote automatic identification system (AIS) and vessel monitoring system (VMS) for industrial fishing vessels, collecting log reports on fishing activities from industrial vessels by radio and from the MFMR's on-board observers.
Electricity Generation and Transmission Company (EGTC)	EGTC is responsible for the generation and transmission of electricity and the sale of electricity to the Authority subject to a power agreement approved by the commission.
Electricity Distribution and Supply Authority (EDSA)	EDSA is responsible for the supply, distribution, and retail sale of electricity for the entire country except for areas in which the Commission has issued a distribution License to another appropriately qualified person.

Institution	Role and Responsibilities
Sierra Leone Police (SLP)	SLP are responsible for controlling operations and enforcing regulations. SLP supports enforcement of environmental and social protection measures and regulations, especially in preventing and controlling non-compliances and illegal activities in the project area.
Sierra Leone National Fire Force (SLNFF)	SLNFF is responsible for enhancing effective management and protection of fire disasters against human resources and property, and hence reducing poverty and contributing to economic growth, through efficient firefighting, search and rescue and disaster preparedness mechanisms in the country.
Sussex Community	<p>Sussex village is in the Western Area Rural District of Sierra Leone. The village's economy is primarily driven by fishing, followed by small businesses, with the population being equally split between the Sherbro people and the descendants of the Creole. The community is predominantly Christian</p> <p>The governance structure is led by Village Headman who is supported by key figures in the community, including the Mamie Queen/Chair Lady, who plays a vital role in representing women's interests and promoting community development. Additionally, the Youth Leader contributes to the village's growth and development by engaging young people in various initiatives and activities.</p> <p>The council's governance structure is designed to ensure effective service delivery. The council has also launched a 2024-2028 Development Plan, which outlines a strategic framework for sustainable urban and rural development, focusing on key areas such as eco-nomic growth and transportation, enhancing Urban Infrastructure and Social Services, etc</p>
SPV company	WARDIP SOP2 is designed to mobilize private capital and deliver connectivity via PPPs. When a Special Purpose Vehicle (SPV) is established for these PPP investments, its role is to act as the ring-fenced project company that develops, finances, owns, and operates open-access wholesale digital infrastructure (e.g., national backbone and cross-border links), sells nondiscriminatory capacity to market players, and meets the technical, regulatory, and reporting obligations set under the PPP and national/regional rules. The SPV would have an Environmental, Social, Health and Safety Risk Management System (ESHSRMS) to ensure systematic identification, assessment, and management of ESHS risks across its operations, consistent with all relevant ESSs.acceptable to IDA financing for submarine cable deployment including procurement and financial management.
Mobile Network Operators (MNOs)	Mobile Network Operators (MNOs) are expected to act as key private-sector partners across the program's three market layers connectivity, data, and online services by investing in and operating infrastructure, complying with strengthened and harmonized rules (competition, QoS, cybersecurity, data protection), interconnecting across borders, and enabling broader usage of mobile broadband and digital services.
Non-Governmental Organizations (NGOs)	Local NGOs are licensed by the MoPED and work on national issues of concern through advocacy, awareness raising, lobbying, support to vulnerable groups, etc. They will play a role in and support in receiving and handling grievances related to GBV and SEA/SH and managing livelihood restoration programs.
Community Based Organizations (CBOs)	Local CBOs are licensed by local councils; their role focuses on issues impacting the community, to address their needs and reach marginalized groups. They conduct advocacy campaigns on local issues of concern.
World Bank (WB)	The WB is supporting Sierra Leone's efforts to enhance access to infrastructure and basic services in Project target areas, strengthen disaster preparedness and response

Institution	Role and Responsibilities
	systems, improve community health conditions and contribute towards institutional strengthening & human capital development for service delivery, tools & facilities for water resource management, improvement in urban water & sanitation delivery.

3.11 Required Licenses

Table 10 provides a list of statutory requirements that will be obtained prior to project commencement.

Table 10: Licenses Required

S/N	List of statutory approvals or licenses to be obtained	Responsible Agency
	Operator authorization	
1	Telecommunications operator licenses Infrastructure operator licenses or submarine cable landing licenses or equivalent	National Telecommunications Regulatory Authority/Ministry
2	Studies/surveys/reports on land and marine environment and archaeology (e.g. environmental assessments, environmental impact assessments, etc.)	
3	EIA license	Environmental Protection Agency
	Submarine cable license: seaward of BMH, drill pipe, offshore conduit, etc. (first point of entry on beach) to relevant maritime claim (jurisdictional boundary)	
4	Permit to own (occupy) (i.e. the right to occupy, own or use the coastline and seabed). Of-ten called "Permit in Principle" (PIP) for marine installations).	The relevant government authorities.
5	Regulatory permits (i.e. non-exclusive permits required for submarine construction or installation activities).	The relevant government agencies and immigration authorities.
6	Vessel operating permits (i.e. approvals and authorizations to operate marine installation vessels)	If applicable: Port Authority, Customs and Immigration, Maritime Safety and Security Agency (e.g. Coastguard), Harbor Master, Hydro-graphic Office, Navy, Ministry of Defense, Historic/Cultural Preservation Authority.
7	Permit to Own (Occupy) (i.e. the right to occupy, own or use the coastline and seabed). Permit to study the sea route by cable and/or approval of the sea route prior to the study (sometimes called a permit in principle (PIP) for the study of the sea route).	Port Authority, Ministry for Coastal Zones and other licensing authorities.
8	Regulatory permits (i.e. non-exclusive permits required for shipping route survey activities).	The relevant government agencies and immigration authorities.
	Cable landing station (CLS) permit	
9	Vessel operating permits (i.e. approvals and authorizations to operate vessels as part of the study of shipping routes)	Where applicable: Port Authority, Customs and Immigration, Maritime Safety and Security Agency (e.g. Coastguard), Harbor Master, Hydrographic Office, Navy, Ministry of Defense, Historic/Cultural Preservation Authority.
10	License of ownership (occupancy) (i.e. the right to occupy, own or use the new cable station or the right to occupy a space in the existing cable station installation).	Private or public entity that currently owns the land or space of the existing cable station.
11	Regulatory authorizations (i.e. those required for CLS construction or installation activities).	Local authority responsible for town and country planning, public works and the building code
12	Construction equipment and personnel Operational approvals and authorizations	Where applicable Local authority responsible for land use planning, public works and the building code
	Outside Plant Permit (OSP): Land pipes, sub-pipes, Manholes, Handholes from cable station to Beach Manhole	

13	License to own (occupy) (i.e. the right to occupy, own or use land along the PSO route or the right to occupy space in existing PSO facilities).	Private or public entity that currently holds the ownership rights to PSO routes.
14	Regulatory permits (i.e. non-exclusive permits required for outdoor construction or installation activities).	The relevant government agencies and immigration authorities.
	Beach works permit includes OGB (Ocean Ground Bed) and any other applicable beach/shoreline/shoreline extremity. Does not include alterations to existing infrastructure, sea walls, BMH etc.	
15	Permit to own (occupy) (i.e. the right to own waterfront property or the right to occupy space in existing waterfront facilities).	Private or public entity that currently holds ownership rights to the shoreline.
16	Regulatory permits (i.e. non-exclusive permits required to terminate construction or installation activities).	The relevant government agencies and immigration authorities.
	Agreements (formal and informal) between users of the marine environment and the seabed (stakeholders) for the study of shipping routes and marine installations	
17	Pipeline crossing agreement(s)	Pipeline owner(s)
18	Crossing agreement(s) for hydrocarbon and mineral re-source concession blocks	Concession owner(s) or Ministry of Oil, Gas and Mining
19	Cable routing agreement(s)	Cable owner(s)
20	Agreements with the fishing interests concerned Military cable and/or exercise/training areas	Fishing Unions/Individuals Ministry of Defense, Navy
	Cross-referencing notifications (formal and informal) from users of the marine environment and seabed (stakeholders) for Marine Route Survey & Marine Installation	
21	Pipeline crossing; Marine Route Survey & Marine Installation Crossing notification	Pipeline owner(s)
22	Crossing of hydrocarbon con-cession blocks and mining re-resources; Marine Route Survey & Marine Installation Traverse Notification	Concession owner(s) or Ministry of Oil, Gas and Mining
23	Cable crossing; notification of crossing a maritime installation	Cable owner(s)
24	Agreements with the fishing interests concerned	Fishing Unions/Individuals
25	Military cable and/or exercise/training areas	Ministry of Defense, Navy

Source: Project WARDIP Submarine Cable | Feasibility study report - Sierra Leone (2025) by TACTIS

4. Environmental and Social Baseline

This chapter presents the descriptions of the biophysical and socio-economic environment across Freetown and Sussex areas in Sierra Leone. The physical and biological factors considered included climate, topography and geology, soils, hydrology, flora and fauna and socio-economic factors among others.

4.1 General overview of Sierra Leone

Sierra Leone is in West Africa between the Republic of Guinea in the north and the Republic of Liberia to the southeast. The western border stretches for 465 kilometers along the Atlantic Ocean. It is situated in the northern hemisphere between latitudes 7° and 10° N and longitudes 10° and 13° W and spans 72,325 square kilometers. Coastal plains, interior lowland plains, plateaus, hills, and mountains characterize Sierra Leone, and the country is endowed with substantial natural resources: mineral deposits, fertile agricultural land, and a deep natural harbor. Sierra Leone is divided into 5 administrative regions namely, the Northern, Eastern, Southern, North-Western Provinces and the Western Area. These regions are further divided into 16 administrative districts. The Western Urban and Western Rural are the districts in the Western Area.

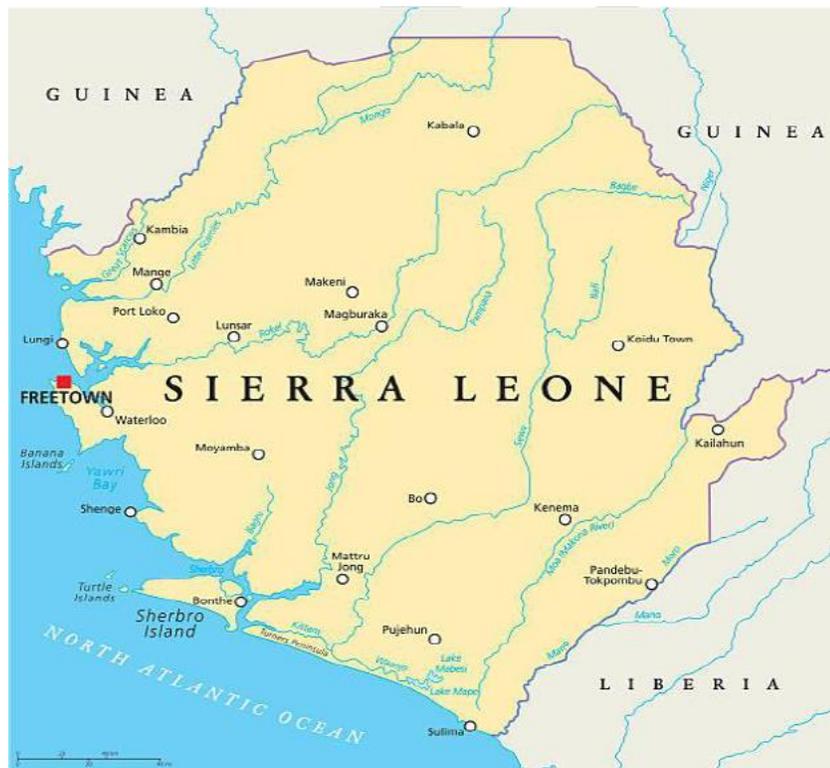


Figure 6: Map of Sierra Leone (Source: Feasibility study- Preliminary Environmental and Social report, 2025)

4.2 Environmental Baseline (National)

4.2.1 Climate

Sierra Leone has a tropical climate with distinct wet and dry seasons. The wet season starts in May and ends in November and is characterized by torrential rainfalls and high humidity. The dry season starts in

December and ends in April, which includes harmattan, when cool, dry winds blow in off the Sahara Desert. Figure 3 describes the minimum and maximum surface air temperature and precipitation.

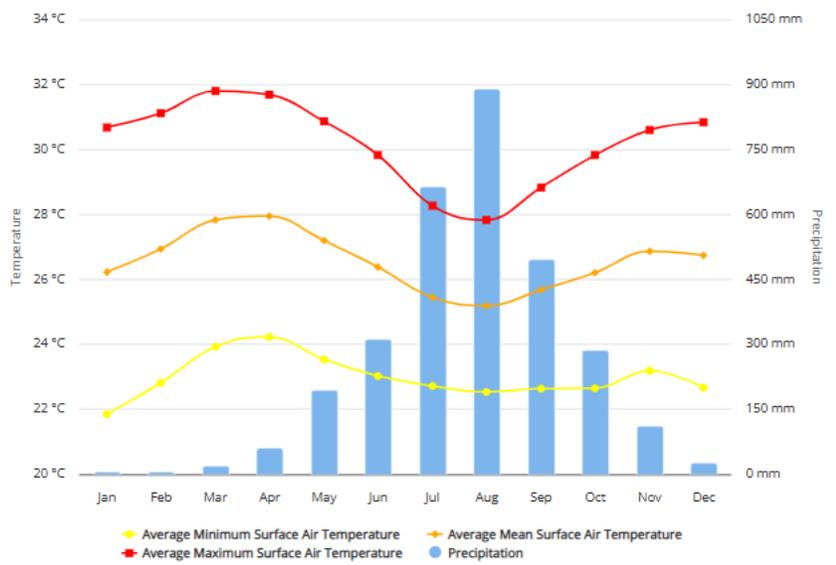


Figure 7: Monthly climatology of Average Minimum and Maximum Surface Air Temperature and Precipitation (1991-2020) in the Western Area Sierra Leone (Source: WBG Climate Change Knowledge Portal)

4.2.2 Temperature

The local climate is tropical, with coastal areas having hot and humid weather and inland areas having a more temperate climate. The average annual temperature is 26.7°C and the annual average rainfall is 2,746 mm (1961 – 1990). The rainy season is largely controlled by the movement of the tropical rain belt, Inter-Tropical Convergence Zone (ITCZ), which oscillates between the northern and southern tropics over the course of a year (WBG Climate Change Knowledge Portal)

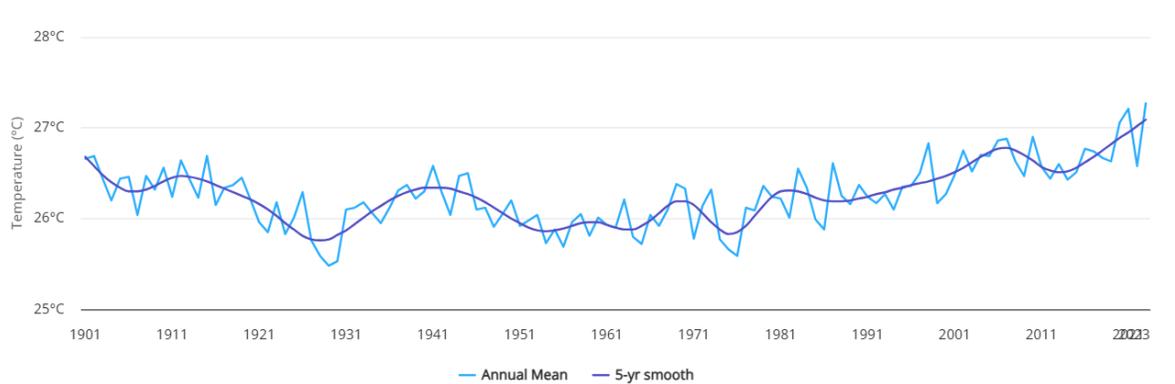


Figure 8: Observed annual mean surface air temperature (1901-2023) in the Western Area (Source: WBG Climate Change Knowledge Portal)

4.2.3 Land

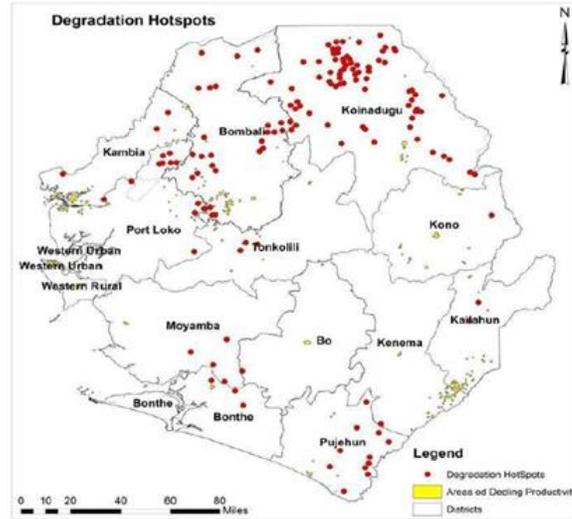


Figure 9: LDN hotspots (source: GoSL, 2018) adapted from the Updated NDC (2021)

4.2.4 Water Resources

The Sierra Leone coastal area can be divided into four main hydrological areas (Johnson and Johnson, 2004). These are the Scarcies River, Sierra Leone River, Sherbro River and the Gallinas and Mano Rivers hydrological areas.

- i. **The Scarcies River Hydrological Area:** The river is tidal and during the rainy season rises about 2.7m. The wide estuary mouth has mud banks and sand bars forming Yelibuya and Kortimaw islands. Further inland, it splits into the Great and Little Scarcies rivers which are relatively narrow and lined with mangroves.
- ii. **Sierra Leone River Hydrological Area:** The main rivers entering this hydrological area are the Rokel, Port Loko creek and Kumrabe creek.
- iii. **Sherbro River Hydrological Area:** Three major river systems, the Taia, Sewa, and Wange rivers enter the Sherbro River Estuary through a complex system of brackish water channels draining an extensive area behind the ancient beach ridges in the southeast region. The water divides around Sherbro Island and flows west into Yawri Bay and south along Turner’s Peninsula.
- iv. **Gallinas and Mano Rivers Hydrological Area:** The Mano River divides Sierra Leone from Liberia and drains a large catchment area in the south. The stronger surf and currents have formed an 8km spit between the open sea and the narrow lagoon fed by the rivers.

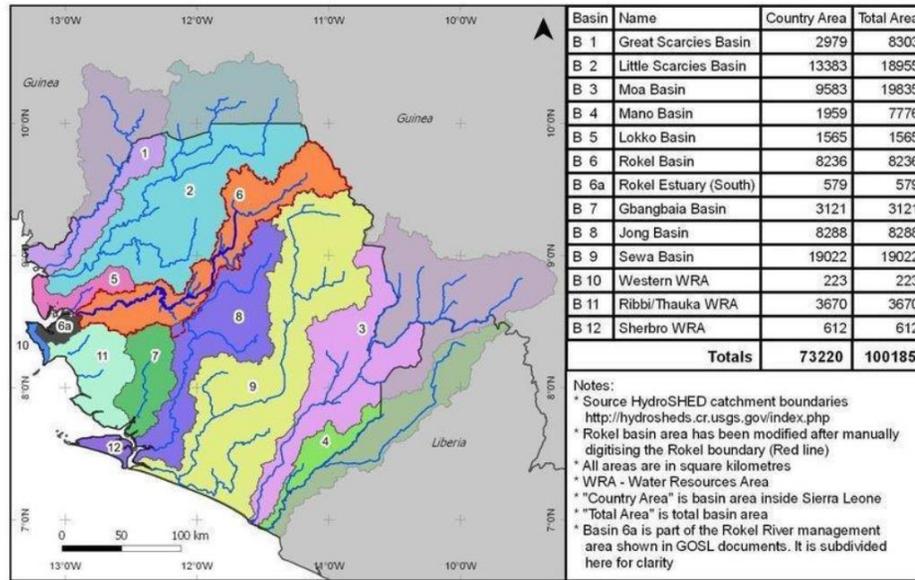


Figure 10: River basins of Sierra Leone (Sources: reproduced with permission from the Ministry of Water Resources/ASI (2015) adapted from the Updated NDC (2021)

4.2.5 Soils

The soil of Sierra is ferralitic and excessively leached because of the humid tropical conditions. This is particularly true for the upland soils with such common minerals, as calamite; aluminum and iron organic matter content is low, making the soils less suitable for cropping. In contrast the inland valley swamps are hydromorphic and relatively fertile and suited for rice cultivation (NBSAP 2004-2010).

4.2.6 Forests

According to the Global Forest Watch, from 2002 to 2023, Western Area lost 2.27 kha of humid primary forest, making up 23% of its total tree cover loss in the same time period. Total area of humid primary forest in Western decreased by 18% in this time period. In 2020, the Western Area had 41.0 kha of natural forest, extending over 57% of its land area. In 2023, it lost 453 ha of natural forest, equivalent to 266 kt of CO₂ emissions. In 2020, Western had 48.5 kha of land above 10% tree cover, extending over 69.3% of its land area. In 2017, Sierra Leone revised its National Biodiversity Strategy and Action Plan (NBSAP) to assess the status of biodiversity, including forest resources, and propose action plans for sustainable management.



Figure 11: Protected and conservation areas of Sierra Leone (UNEP 2015) adapted from the Updated NDC (2021)

4.2.7 Vegetation distribution

Sierra Leone’s vegetation comprises two major biogeographic ecosystems: the Sudan-Guinea savanna biome which occupies most areas of the north to the north-west; and the Guinea-Congo forest biome stretching across the south to north-eastern flank of the country and constitutes the westernmost extent of the Upper Guinea forest endemic area. Mixed elements of these two major biomes occur in places, mainly in the transition zones between the northern and southern sections. The current vegetation map of Sierra Leone (Figure 8) shows a vast area of degraded land (pale green), mainly comprising bush fallows (farm bush), covering approximately 50% of the land area.

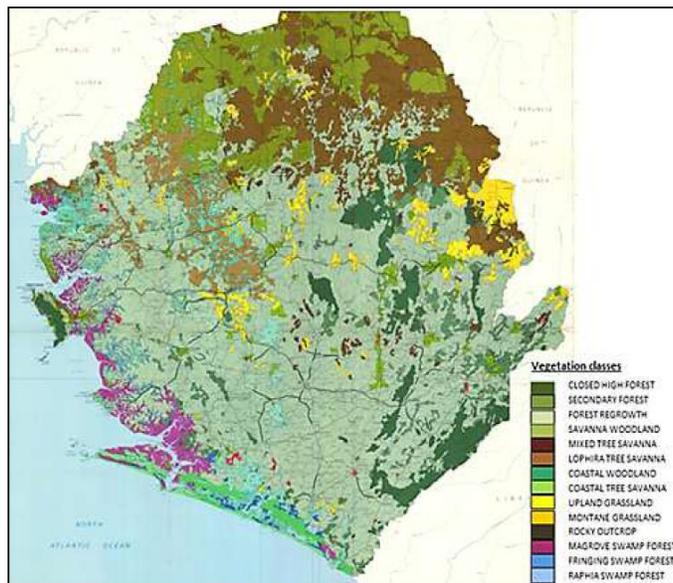


Figure 12: Vegetation map of Sierra Leone (Source: NBSAP (2017-2026))

4.2.8 Fauna Biodiversity

There are approximately 147 known species of wild mammals, 172 known breeding bird species, 67 known reptile species, 35 known amphibian species, 750 species of butterflies including the giant African swallowtail, one of the largest butterflies, and about 200 known species of fish (NDC, 2021). According to Sierra Leone’s Second National Biodiversity Strategy and Action Plan (2017-2026), Sierra Leone has over 2000 species of vascular plants including 74 endemics to the West African sub-region and 90 species listed as threatened and near threatened based on IUCN (2016).

4.2.9 Inland Protected Areas

The UNESCO World Heritage Convention describes the Western Area Peninsula National Park (WAP-NP), as occupying the center of the peninsula, covering about 17,000 hectares of closed forest. Hosting a range of hills with a highest peak at 971 meters, one of the eight biodiversity hot spots of the country and hosts 80-90% of Sierra Leone’s terrestrial biodiversity. Despite its protected status, it faces significant threats from human activities and climate change, making ongoing conservation efforts and community involvement vital for its future.



Figure 13: Map illustration of the MPA and proposed project CLS locations at the projects terrestrial segment

The proposed project (terrestrial segment) is not expected to be carried out within the boundaries of the of the WAP-NP or in the buffer zone of the WAP-NP. The terrestrial segment of the project would be constructed on modified habitat as can be seen in the figure above .

4.2.10 Marine Protected Areas

In 2016, four main estuarine systems were designated as MPAs, recognized under national law, and are managed through Community Management Associations (CMAs), involving local fishers, government agencies, and NGOs. This includes:

1. Sierra Leone River Estuary: The Sierra Leone River Estuary is located near Freetown and covers over 259,000 ha, and designated as a Ramsar Wetland of International Importance since 1999
2. Scarcies River Estuary: The Scarcies River Estuary is located at Kambia District, northern Sierra Leone and has extensive mangrove forests (over 34,000 ha), nursery grounds for fish and crustaceans, important for local fisheries.
3. Sherbro River System: The Sherbro River System is located at Bonthe District, southern Sierra Leone. It has large mangrove areas (over 99,000 ha), supports shrimp, fish, and bird populations and sea turtle nesting areas.
4. Yawri Bay: The Yawri Bay is located at the Western Rural and Moyamba District. It contains mangrove swamps (over 24,000 ha), mudflats, and sandflats. Important for fish breeding and migratory birds.

Sierra Leone’s waters are endowed with an abundant range of species that include marine tropical finfish, mollusks, and crustaceans. Some 200 species of fish have been identified in the country’s EEZ, about 100 of which are relatively common and commercially exploited. Sierra Leone is extremely vulnerable to climate change due to a combination of heightened exposure and limited adaptive capacity. Wetlands,

4.2.11 Disaster Management

Sierra Leone is vulnerable to the increasing severity of droughts, floods and severe storms and their impacts on sectors such as agriculture, fisheries, as well as infrastructure and hydroelectric power production. Urban and rural seasonal flooding, recurrent flash flooding, and coastal flooding are the most observed, leading to seasonal flooding of agricultural fields and low-lying areas, flooding along the coast areas and flood waters overflowing into roads and into residents’ homes. Vulnerable areas include Western Area, Eastern, Southern and Northern regions. More specifically, the most affected areas in the recent past during these last years include: Kroo Bay, Susan’s Bay, Granville Brook, Lumley area in Western Area, Port Loko and Kambia Districts, the Newton catchment area, Pujehun and Bo areas, Kenema and Moyamba Districts, and coastal beaches of the Western Area Peninsula (Government of Sierra Leone 2018).

4.2.12 Overview of Fisheries and Aquaculture in Sierra Leone

According to the Feed Salone Strategy for the Fisheries and Marine Resource Sectors in Sierra Leone report (2025), the fisheries sector consists of artisanal, semi-industrial, and industrial fishing fleets. There are also inland fisheries, and a nascent recreational fishing sector linked to tourism. Fishing occurs throughout Sierra Leone’s marine waters, though the distribution of fishing fleets differs. The country has an exclusive economic zone (EEZ) of about 160,000 square kilometers and a coastline of five coastal districts. (Figure 2). Artisanal and semi-industrial fishers are allowed to fish within the country’s inshore exclusion zone (IEZ), which extends six nautical miles out from the EEZ baseline, with semi-industrial vessels ranging out to 12 nautical miles. Industrial vessels are not allowed to fish in the IEZ, meaning they are only legally allowed to operate in the area between six nautical miles and two hundred nautical miles (the outer limit of the EEZ). The fisheries sector is of great economic importance and provides livelihoods for about 14 percent of Sierra Leone’s population, with women playing key roles in processing and trade. Fish consumed domestically are overwhelmingly marine fishes and mostly consist of small pelagic species such as Sardinellas and bonga shad, which are caught by the artisanal fishing fleet.

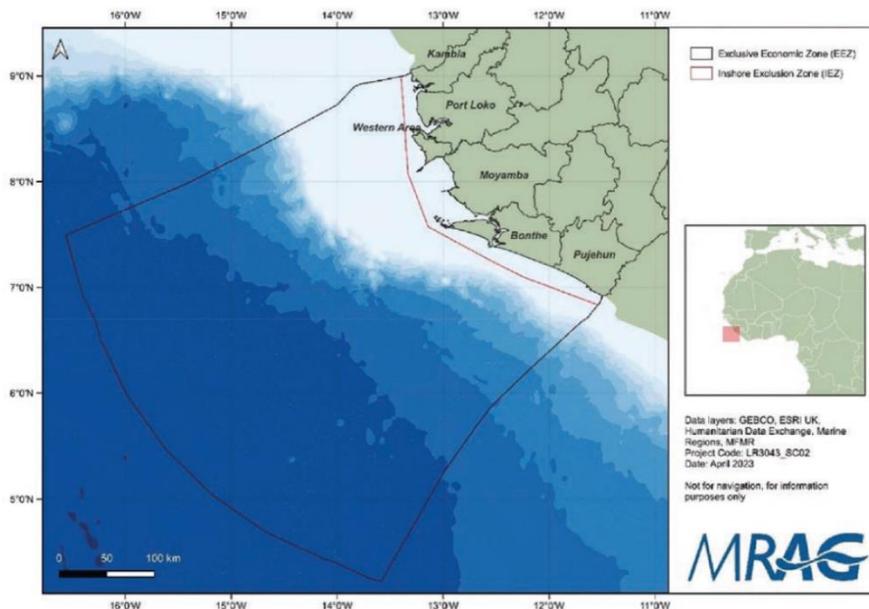


Figure 15: Sierra Leone’s inshore exclusion zone (boundary marked by a red line) and exclusive economic zone (boundary marked by a black line) (Source: Feed Salone Strategy for the Fisheries and Marine Resource Sectors in Sierra Leone report (2025)).

4.2.13 Sussex area (The Western Area Rural District)

The Sussex area is a small coastal town located in the Western Area Rural District. It is situated approximately 15 kilometres south of Freetown, and its proximity to the capital city makes it an important hub for economic activity. The area is known for its stunning beaches, mangrove forests, and diverse range flora and fauna.

Topography

The topography of Sussex is characterized by a low elevation, with minimal slopes and no significant landforms. The area's terrain is generally flat, with a gentle slope towards the ocean. The terrain also influences the local climate, with cooler temperatures in the hills and warmer temperatures in coastal areas. This topography has significant implications for land use and infrastructure development, requiring careful planning to ensure that development is sustainable and environmentally friendly.

Climatic Conditions

The climatic conditions in the area are typical of the tropical region, with high temperatures and high humidity levels throughout the year. The area experiences a rainy season from May to October and a dry season from November to April. The proximity to the Atlantic Ocean moderates temperatures and provides moisture, influencing the climate. This climate has significant implications for agriculture, with many crops being grown during the rainy season. Understanding these climatic conditions is crucial for planning and managing agricultural activities, as well as for ensuring food security in the region.

Vegetation

The vegetation in the area is characterized by a mix of mangrove forests, seagrass beds, and other coastal vegetation. These ecosystems provide important habitats for a wide range of marine species, including fish, turtles, and marine mammals. The vegetation is adapted to the high temperatures and humidity levels, but it is under threat from human activities such as deforestation and pollution. Preserving these ecosystems is essential for maintaining biodiversity and supporting the livelihoods of local communities that depend on them.

Ambient Noise Level

The ambient noise level in the area varies, with higher levels of noise in urban areas like Freetown and lower levels in rural areas like Sussex. In Sussex, the noise levels are generally low, influenced primarily by natural sounds such as waves and wind. This peaceful environment is conducive to both residential and recreational activities, making Sussex an attractive location for those seeking a quieter lifestyle.

Ambient Air Quality

The ambient air quality in the area is influenced by vehicular emissions, industrial activities, and natural sources like dust. In Sussex, the air quality is generally good, with minimal industrial or vehicular pollution. The area's air quality is primarily influenced by natural factors, making it a relatively clean environment. However, careful management is necessary to prevent degradation of air quality as development occurs.

Coastal Geology and Geomorphology

The coastal geology and geomorphology of the area are characterized by a mix of sandy beaches, rocky shorelines, and mangrove forests. The coastline is dynamic, with sediment transport and erosion occurring due to natural forces like waves and tides. This dynamic nature of the coastline requires adaptive management strategies to protect both natural ecosystems and human infrastructure.

Geology

The geology of the area is complex, with rocks ranging from granites to sedimentary deposits. The area's geology has been shaped by tectonic activity, weathering, and erosion. This geological history has significant implications for the area's soil composition, land use potential, and natural resource management.

Groundwater Aquifers

The groundwater aquifers in the area are an important source of freshwater for local communities. These aquifers are recharged by rainfall and are influenced by the area's geology and hydrology. In Sussex, the aquifers are characterized by a mix of shallow and deep aquifers, with the deep aquifers being more protected from contamination. Managing these aquifers sustainably is critical for ensuring a reliable water supply for drinking, irrigation, and industrial activities.

Hydrology

The hydrology of the area is characterized by a network of streams, rivers, and wetlands that flow into the ocean. The surface water bodies are influenced by rainfall and tidal fluctuations, playing an important role in the local ecosystem. The groundwater hydrology, influenced by the area's geology and rainfall, is also crucial, providing a source of freshwater for local communities. Protecting these water resources from contamination and managing them sustainably is essential for the health and well-being of the population.

Bathymetry

The bathymetry of the area is complex, with varying depths and slopes. The seafloor topography is influenced by geology and ocean currents, having significant implications for marine ecosystems and human activities such as fishing, shipping, and offshore construction. Understanding and managing the bathymetry of the area is crucial for ensuring that these activities are conducted safely and sustainably.

Wildlife

The wildlife in the Sussex area is characterized by a mix of marine and terrestrial species. The area's marine ecosystems support a diverse range of species, including fish, turtles, and marine mammals. The area's terrestrial ecosystems support a range of species, including birds and other small mammals. The biological environment in the Western Area Rural District and Freetown Peninsula are under threat from a range of human activities, including deforestation, pollution, and climate change. Conservation efforts are necessary to protect the area's ecosystems and wildlife.

Flora

The flora in the area is characterized by a mix of mangrove forests, seagrass beds, and other coastal vegetation. These ecosystems provide important habitat for a wide range of marine species and play a critical role in maintaining the area's ecosystem services.

Fauna

The fauna in the area is characterized by a diverse range of marine and terrestrial species. The area's marine ecosystems support a wide range of species, including fish, turtles, and marine mammals. The area's terrestrial ecosystems support a range of species, including birds, and other small mammals.

Fish

The fish fauna in the area is diverse, with a range of species found in the area's marine ecosystems. Some of the common fish species found in the area include:

- Demersal fish, such as groupers and snappers

- Pelagic fish, such as tuna and mackerel
- Reef fish, such as parrotfish and butterflyfish

The area's fish fauna is an important part of the local ecosystem and provides a source of food and income for many communities.

Sea Turtles

Sea turtles are an important part of the fauna in the area. The area's beaches provide important nesting sites for sea turtles, and the area's marine ecosystems support a range of sea turtle species. Some of the common sea turtle species found in the area include:

- Leatherback sea turtles
- Green sea turtles
- Hawksbill sea turtles

The area's sea turtles are vulnerable to a range of threats, including habitat destruction, entanglement in fishing gear, and climate change.

Birds

The bird fauna in the area is diverse, with a range of species found in the area's terrestrial and marine ecosystems. Some of the common bird species found in the area include:

- Seabirds, such as gulls and terns
- Shorebirds, such as sandpipers and plovers
- Forest birds, such as hornbills and turacos

The area's bird fauna is an important part of the local ecosystem and provides a source of food and income for many communities.

Soils

The soil is diverse, with a range of soil types such as sandy and clay soils found in the area. The area's soils are influenced by its geology, climate, coastal location, vegetation, and have significant implications for land use and agriculture, and are subject to erosion and sedimentation. The soil in the area is used for a range of purposes, including agriculture, urban development, and infrastructure construction. The area's soil requires careful management to ensure that they are used sustainably and do not degrade over time.

4.3 Socio-economic Environment

4.3.1 Overview of economy (National)

According to the results of the 2004 Sierra Leone Population and Housing Census, the population of Sierra Leone is estimated at about 4.9 million in an estimated 819,854 households. For the period 1985-2004, the population growth rate was estimated at 1.8 percent. About 64 percent of the population resides in rural areas.

Sierra Leone was ranked last among the 177 countries surveyed globally in the 2007/2008 United Nations Human Development Index, with a per capita GDP of about US\$806, a life expectancy of 41.8 years, and an adult literacy rate of 34.8 percent. The UNDP 2007/2008 Human Development Report estimates that in 2005 about 52 percent of the population lived on less than US\$1 a day (UNDP, 2007). The most recent household income and expenditure survey (2003-04) showed that about 70 percent of the population lives below the poverty line according to the National Poverty Line of Le 2,111 per day (SSL,2004).

Overall, poverty is highest in rural areas, with 79 percent of the rural population living below the poverty line. The most acute form of poverty, insufficient food, is concentrated mainly in rural areas. About 68 percent of the population cannot afford enough food to eat. Three out of four people (75 percent) in rural areas outside Freetown do not attain the minimum daily calorie intake (2700 calories). The poor in Sierra Leone can meet only about 71 percent of their basic needs.

The civil war resulted in a substantial reduction in the standard of living and, for many people, reduced access to food. A poor and undernourished population is more susceptible to various diseases. Thus, rising maternal and child mortality rates, increasing rates of illiteracy, and rising unemployment levels characterize the living conditions in many parts of Sierra Leone. The HIV/AIDS pandemic has also had a major impact on all sectors of the economy through loss of production and labour force. Against this background, the government of Sierra Leone in 2005 launched the Economic Recovery Strategy, aimed at restoring economic growth, generating employment opportunities, and reducing poverty levels (Poverty Reduction Strategy Paper, March 2005).

4.3.2 Population (National)

According to the 2024 World Population Prospects, United Nations (UN) the population of Sierra Leone was 8,642,022. . The growth rate in Sierra Leone has been above average throughout its history, and the steady increase in population is still going on today and the annual rate of change has been over 2% since around the turn of the century. The median age in Sierra Leone is 18.5 years, which is disproportionately young and makes for a very young working population. The average woman gives birth to roughly 4.5 children, and this high birth rate is the cause of the substantial population growth rate in the country.

The annual growth rate in the country is not expected to remain over 2% for much longer. Current projections suggest that the rate of growth will peak at 2.14% in 2020 before declining towards 1.22% by the year 2050, a drastic drop. The population numbers will still change drastically during this time, however. The same set of predictions state that the population of Sierra Leone will be 8,046,931 in 2020, 9,719,531 in 2030, 11,403,087 in 2040 and 12,971,626 by the year 2050.

4.3.3 Land ownership in Sierra Leone

Land can be owned from the following categories in Sierra Leone: Private land, state land, communal land, and family land. State land and private landownership operate in the Western Area. In the provinces, communal and family land ownership is prevalent. State or public lands are mostly unoccupied land, and land compulsorily acquired by the Government. Private land is land in which an individual has a freehold interest. Communal land referred to as chiefdom or community land is held in trust by the chief for the community and in the case of family land the main interest is vested in the family group with a common ancestry. In the provinces private freehold is gaining ground in the urban centres. Most chieftaincy land is held by extended families who have rights of access, use, and transfer by lease.

4.3.4 Gender Based Violence (GBV) in Sierra Leone

Although gender-based violence (GBV) is a global problem, recent research in West Africa suggests that this problem becomes particularly acute in post-conflict countries. It is widely estimated that during Sierra Leone's civil war from 1991-2002, up to 250,000 women and girls were victims of GBV. Rape was used systematically by all factions and, although peace was declared in 2002, the trauma of war has left scars which run through the fabric of households, families, and communities.

In the urban areas, about 70 percent of the population is self-employed and largely engaged in petty trading in the informal sector. Many of the women, and men, involved in informal trading do so on a hand-to-mouth basis to sustain the welfare and basic consumption needs of their households. More men have access to paid jobs, while women tend to occupy less well-remunerated enterprises within the informal sector. In Sierra Leone, 12.4 percent of parliamentary seats are held by women, and 19.2 percent of adult women have reached at least a secondary level of education compared to 32.3 percent of their male counterparts. In the urban slum setting in Freetown, mostly along the coastline, cross-border trade is an important source of livelihood support, with 63 percent of urban women engaged in informal economic activities, mostly petty trading, and farming (Howard 2016). These disparities result from cultural and social barriers that discriminate against women's full socioeconomic participation (African Development Bank 2016).

GBV in Sierra Leone is a persistent problem which studies have shown to affect nearly all Sierra Leonean women who experience it in one form or another during their lifetime. According to the Sierra Leone Demographic and Health Survey 2019, 61 percent of women aged 15–49 have experienced physical violence since age 15, and 7 percent have experienced sexual violence. When it comes to intimate partner violence (IPV), 62 percent of ever married women have, at least once in their lifetime, experienced physical, sexual, or emotional violence (SSL and ICF International 2020). The violence takes various forms including domestic (physical, economic, and emotional/psychological), communal/cultural, sexual, and structural (equal rights discrimination), with domestic violence being the most common.

Sierra Leone is also a highly patriarchal society, and institutionalized gender inequalities are exacerbated by discriminatory behaviours, particularly with relation to marriage, property rights, and sexual offences. The high levels of illiteracy and poverty among Sierra Leonean women prevent them from upholding many of their internationally recognized rights. Similarly, economic insecurity contributes to women's vulnerability to GBV, and their marginalization from local and national decision-making processes further limits their ability to redress these gender inequalities. With the onset of the COVID-19 pandemic, it was feared that the rates of GBV, which were already unacceptably high in Sierra Leone, would be exacerbated.

4.3.5 Sussex area (The Western Area Rural District)

Economy

The economy of Sussex is primarily driven by fishing and agriculture. Many residents engage in artisanal fishing, while others farm crops such as rice, cassava, and vegetables. The village's proximity to Freetown provides opportunities for trade and commerce. The fishing industry is a significant contributor to the local economy, with many households relying on fishing as a source of income and food. Agriculture is also an important sector, with crops being grown for both subsistence and commercial purposes.

The economy of the area is also influenced by its natural resources, including its coastal location and fertile soil. The village's coastal location provides opportunities for fishing and seafood processing, while the fertile soil makes it suitable for a range of crops. However, the economy of Sussex faces challenges such as limited access to markets, poor infrastructure, and climate change.

Livelihoods

The livelihoods of people in Sussex are diverse, with many residents relying on fishing, agriculture, and other natural resource-based industries. Some residents also engage in small-scale entrepreneurship, such as selling goods at local markets or providing services such as tailoring or carpentry. Many households in Sussex engage in multiple livelihood activities, such as farming and fishing, to make ends meet.

The livelihoods of the area are also influenced by their access to natural resources, including land, water, and fisheries. Many households rely on these resources for their livelihoods, and their management and conservation are critical for the sustainability of the local economy. However, the livelihoods of people in Sussex are challenged by limited access to markets, poor infrastructure, and climate change.

Infrastructure

The infrastructure in Sussex is limited, with unpaved roads and limited access to basic services such as healthcare and education. However, the village has a primary school and a few small shops. The lack of paved roads makes it difficult for residents to access markets, healthcare services, and other essential facilities, particularly during the rainy season.

The area's infrastructure is also influenced by its geography and climate. The coastal location of Sussex makes it prone to erosion and flooding, which can damage infrastructure and disrupt economic activity. The village's infrastructure requires careful planning and management to ensure that it is sustainable and resilient.

Social Services

Social services in Sussex are limited, with few healthcare and education facilities. Residents often have to travel to nearby towns or Freetown to access more advanced healthcare services and opportunities. The village's primary school provides basic education services, but many children do not have access to secondary education.

The lack of access to healthcare services is a significant challenge for residents of Sussex. Many households lack access to basic healthcare services, including maternal and child health services. The village's healthcare services require improvement to support the well-being of local communities and promote economic development.

Cultural Heritage

The cultural heritage of the area is rich and diverse, with a range of ethnic groups and cultural traditions. The area's cultural heritage is influenced by its history, geography, and economy, and is an important part of the local identity.

Fishing

Fishing is a significant economic activity in Sussex, with many residents engaging in artisanal fishing. The village's proximity to the ocean provides opportunities for fishing and seafood processing. Many households rely on fishing as a source of income and food, and the industry is an important contributor to the local economy.

The fishing industry in Sussex is characterized by artisanal fishing methods, with many fishermen using traditional fishing gear and techniques. The industry is also influenced by the village's coastal location, which provides access to a range of fish species. However, the fishing industry in Sussex faces challenges such as overfishing and destructive fishing practices, which can threaten the sustainability of the fisheries.

Agriculture

Agriculture is also an important economic activity in the area, with many residents farming crops such as rice, cassava, and vegetables. The village's fertile soil and favorable climate make it suitable for a range of

crops. Many households rely on agriculture as a source of income and food, and the industry is an important contributor to the local economy.

The agriculture sector in Sussex is characterized by small-scale farming, with many households farming for subsistence and commercial purposes. The sector is also influenced by the village's climate, which can be challenging for farmers due to unpredictable rainfall patterns and droughts. However, the agriculture sector in Sussex has potential for growth and development, particularly with the adoption of modern farming techniques and technologies.

Entrepreneurship

Many residents of Sussex engage in small-scale entrepreneurship, such as selling goods at local markets or providing services such as tailoring or carpentry. These activities provide important sources of income for many households and contribute to the local economy. The small-scale entrepreneurship sector in Sussex is characterized by informal businesses, with many entrepreneurs operating without formal registration or licenses. The sector is also influenced by the village's limited access to markets and financial services, which can make it difficult for entrepreneurs to access capital and expand their businesses. However, the sector has potential for growth and development, particularly with the adoption of modern business practices and technologies.

Internet Usage

The average value for Sierra Leone during the period 1990-2019 was 2.67 percent with a minimum of 0 percent in 1990 and a maximum of 16.8 percent in 2019. The latest value from 2019 is 16.8 percent. (Source: World Bank). Internet penetration in Sierra Leone stood at 29.7% in January 2021. This number has grown to 2.39 million internet users in Sierra Leone since 2020. The number of internet users in Sierra Leone increased by 399 thousand (+20%) between 2020 and 2021.

Mobile Services

According to data from the National Communications Authority (NatCA), the number of mobile telephony sub-scribers in 2023 was about 5.86 million, representing a penetration rate of around 69% of the Sierra Leone population. The penetration rate of mobile telephony reached more than 100% in 2020, following an increase of 1.4 million in the number of subscribers over the 2019-2020 period. Between 2020 and 2022, the number of sub-scribers fell by 1.5 million. This sudden drop in subscriber numbers is probably explained by the fact that there are fewer multi-SIMs. Regarding mobile internet, the number of mobile internet subscribers reached about 2.27 million in 2023, representing a penetration rate of around 27% of the Sierra Leone population. This represents an increase of over 1 million in the number of subscribers over the 2019-2023 period while the penetration rate increased by 9% over the same period.

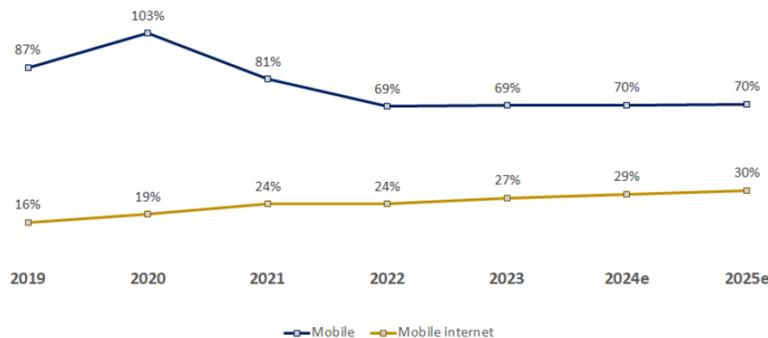


Figure 16: Penetration rate on mobile and mobile internet services (Source NACTA TACTIS Analysis, 2025)

Conflict and security

Sierra Leone experienced a devastating civil war from 1991 to 2002. Sierra Leone has made significant progress since the end of its civil war, with improved security, political stability, and economic recovery. However, the situation remains fragile, with ongoing risks from poverty, youth unemployment, political polarization, and disaster vulnerability. Freetown, as the capital and largest city, reflects these national trends: it is generally secure but faces periodic unrest, especially during times of economic or political stress.

Ethnic and religious groups

Sierra Leone is home to about sixteen ethnic groups, each with its own language and cultural traditions. In the Western Area, which includes Freetown and its surrounding communities like Sussex, the following ethnic groups are most prominent. This includes the Krio (Creole), Temne, Mende, Limba, Fula and other minorities groups. Sierra Leone is officially a secular state, and its constitution guarantees freedom of religion. The two dominant religions are Islam and Christianity, with a small percentage adhering to traditional African religions or other beliefs.

Civil society organization (CSO) or Non-governmental organization (NGO)

CSOs and NGOs in Sierra Leone are active and functional in addressing social, gender, and livelihood issues. They play a critical role in advocacy, service delivery, capacity building, and monitoring, often in partnership with government and development agencies. Examples include Gender Equality and Women's Empowerment (GEWE), Campaign for Good Governance (CGG) and Rainbo Initiative. While their impact is significant, challenges remain in terms of sustainability, coordination, and reaching the most vulnerable.

4.3.6 Other Vulnerable Groups

According to the 2018 Integrated Housing Survey, 162,208 persons with disability are within the working ages of 15–64 years. Of this population, a total of 93,843 (57.8 percent) persons were employed the last week preceding the survey. Of the 57.8 percent, 74.4 percent are self-employed, and 15 percent are engaged in help without pay in households or businesses. Only 6.7 percent are regular employees. Child labour is common in Sierra Leone as children living in the poorest households in Freetown and other major cities are most often forced into providing labour. Many children living in Freetown are used as hawkers, spending long hours selling various items and pulling wheelbarrows, instead of being at school. This is in contravention of the ILO Convention 182 which prohibits the use of child labour. Street trading in the city of Freetown is a very serious problem.

According to the UNDP, approximately 2.7 million Sierra Leoneans are youth aged 15–35 years. The unemployment rate is higher among youth than those aged 35 and above. A lack of skills and experience is cited as one of the main reasons for the high youth unemployment rate. An ILO survey (SWTS Country brief, Sierra Leone. ILO, January 2017) registered a high youth labour underutilization rate, particularly among young women: it was 72.8 percent for young women and 59.9 percent for young men. The share of underutilized labour potential consisted of 48.5 percent of the youth population in irregular employment (either in self-employment or paid employment with contract duration less than 12 months), 11.8 percent unemployed, and 5.9 percent inactive non-students. More than three in four (78.5 percent) employed youth remain in vulnerable employment as own account workers (34.6 percent) or unpaid family workers (43.7 percent).

5. Potential Environmental and Social Risk Impacts and Standard Mitigation Measures

This chapter presents a summary of the potential positive and negative impacts and risks as well as mitigation measures for the planning/design and implementation phases, as well as the project components that have potential environmental and social issues.

5.1 Project Activities with Potential Environmental and Social Risks and Impacts

5.1.1 Potential Positive Impacts

The project is expected to bring several benefits to Sierra Leone, including.

- Increased Bandwidth Capacity - The project will increase Sierra Leone's bandwidth capacity, enabling faster and more reliable internet connection. This will facilitate communication, education and economic development.
- Improved International Telecommunication Reliability - The project will improve the reliability of international telecommunications, enabling businesses and individuals to communicate more effectively with the rest of the world. This will enhance economic growth, trade and investment.
- Economic Benefits - The project is expected to contribute to economic growth and development in Sierra Leone by enabling businesses to access new markets and opportunities. This will create jobs, increase revenue, and improve the overall standard of living.

5.1.2 Potential Adverse Risks and Impacts

The environment is rated Substantial given the breadth of activities supported across multiple countries. The project involves construction of digital infrastructure, including submarine cable deployment, landing stations, and terrestrial fiber extensions in Benin, Liberia and Sierra Leone as well as upgrades to data centers and the development of cloud-ready infrastructure. Key environmental concerns identified at this stage include: (i) effects on sea water quality; (ii) risks associated with the disturbance of marine and other coastal ecosystem and biodiversity loss during construction and operation; (iii) construction waste disposal and e-waste management; (iv) occupational health and safety (OHS) risks for workers, and community health and safety (CHS) risks during both construction and operation; (v) air and noise pollution nuisances; (vii) water pollution; and (viii) high energy consumption (viii) sedimentation and turbidity during nearshore works (ix) risks of hydrocarbon leaks from marine vessels and (v) noise and vibration. While no permanent or irreversible impacts are anticipated, risks are significant in scale but expected to be site-specific, temporary, and manageable through international industry standards, energy optimization, sustainable procurement, and adoption of climate-smart and resource-efficient design.

The social risk of the Project is rated Substantial. Physical works in Sierra Leone may involve minor land acquisition and associated economic displacement, as well as livelihood impacts on coastal communities and fishermen due to temporary restrictions on fishing grounds during submarine cable installation and landing station construction. Other social risks include labor influx, poor working conditions, occupational health and safety issues, and potential disruption to community health and safety. The risk screening results for SEA/SH are substantial as there will be civil works taking place requiring an influx of labor in economically fragile communities where poverty could be a push factor in sexual exploitation including Gender-based violence (GBV) risk which is widespread in Sierra Leone.

5.1.3 Cumulative environmental and social risks and impacts

The cumulative environmental and social risks and impacts of deploying new submarine cable systems landing stations and land network from CLS to the cities in Sierra Leone are substantial. Key risks include habitat disturbance, pollution, disruption to fishing and livelihoods, social exclusion, and health and safety concerns. These risks are manageable with planning, stakeholder engagement, and adherence to the World Bank Environmental and Social Standards and international best practices.

5.1.4 Mitigation Measures

The Project will apply the mitigation hierarchy—avoid, minimize, mitigate, and compensate—to manage environmental and social risks during design, construction, and operation. The ESMF, RF, LMP, SEP and ESCP will guide site-specific environmental and social risk management, supported by independent audits and robust grievance redress mechanisms. Prior to the selection of cable route and location of landing site, a detailed assessment of biodiversity risks and impacts, including a fine-scale map of sensitive marine and coastal habitats (e.g., turtle nesting beaches and other critical habitats in waters up to 25 m depth) as part of the Project’s technical feasibility studies. , The landing station and cloud infrastructure will be designed to meet green standards (e.g., EDGE certification, renewable energy integration).The key mitigation measures include (i) schedule cable laying and the terrestrial segment civil works during periods of low ecological sensitivity (e.g outside breeding/nesting seasons (ii) route cables to avoid critical habitats, marine protected areas, coral reefs, mangroves, and known breeding/nesting sites (iii) develop and implement a comprehensive OHS plan covering incident investigation, reporting, emergency preparedness (iv) implement traffic management plans and provide alternative routes to minimize risks to the community (v) utilize existing Grievance Redress Mechanism (GRM) for community complaints, including SEA/SH incidents (vi) monitor air and noise levels during construction and operation (vii) schedule works during periods of low sea wave action to minimize sediment dispersion (viii) conduct an assessment of the electronic waste generation during project implementation, and if required, an Electronic Waste Management Plan (ix) monitor energy consumption at the CLS and BMH and implement energy-saving measures (x) ensure all vessels comply with MARPOL provisions and national regulations for pollution prevention (xi) use low-noise equipment and vibration dampening techniques (xii) prepare and implement a SEA/SH Action Plan, including codes of conduct and training. Contractors will apply codes of conduct and SEA/SH action plans. On the social side, inclusion strategies, awareness campaigns, and citizen engagement platforms will help manage digital exclusion risks.

Table 12 presents the potential adverse environmental and social risks and impacts and mitigation measures for activities that will have physical footprint.

Table 12: Potential Environmental and Social Risks and Impacts and Mitigation Measures during the design, construction and operations phases

Proposed Activity: Laying submarine fiber-optic cable (Marine Segment) (Construction Phase)				
S/n	Potential Environmental Risks and Impacts	Recommended Mitigation Measures	Responsibility (Implementation)	Responsibility (Monitoring)
	<p>Disturbance to Marine Habitats and coastal ecosystems including fishing and tourism:</p> <ul style="list-style-type: none"> ▪ Laying submarine cables can disrupt benthic habitats, including coral reefs, seagrass beds, and areas used by marine mammals and turtles for breeding or feeding such as in Marine Protected Areas (MPAs) and Biodiversity Sensitive Areas. ▪ Increased turbidity during installation may affect water quality and aquatic life ▪ Laying and trenching of cable may disturb benthic habitats, particularly if routes pass over sandy seabeds, rocky outcrops, or biologically sensitive areas. ▪ Cumulative impacts may arise if multiple cables or other infrastructure (e.g., pipelines, ports) are present or planned in the same area, leading to habitat fragmentation and reduced ecosystem resilience. <p>Impacts on Fish and shellfish</p> <ul style="list-style-type: none"> ▪ Physical disturbance of the seabed during cable laying (trenching, ploughing, jetting) can destroy or alter benthic habitats where shellfish and some fish species live or spawning seasons ▪ Sessile (immobile) species, such as shellfish, are especially vulnerable to being buried or crushed along the cable route. ▪ Cable installation stirs up sediments, increasing turbidity (cloudiness) in the water ▪ Suspended sediments can clog the gills of fish and shellfish, reduce feeding efficiency, and smother eggs or larvae. 	<ul style="list-style-type: none"> • Cable Route Survey and Marine Survey: Conduct Route Selection and Marine Survey: Conduct detailed marine biodiversity surveys and route planning to avoid critical habitats (e.g., coral reefs, turtle nesting sites, marine protected areas). Cable routes should avoid these sensitive habitats, especially during nesting seasons. • Schedule installation outside critical periods (e.g., turtle nesting/hatching seasons) • Prepare and implement Biodiversity Management Plans (BMPs) (Appendix 5: Indicative Outline of a Biodiversity Management Plan) if critical habitats cannot be avoided, and monitor impacts during and after installation • Monitoring: Continuous environmental monitoring during installation, including turbidity, noise, and presence of marine mammals 	MoCTI PCU Contractor	MoCTI PCU /Relevant agencies
	<ul style="list-style-type: none"> • Conduct detailed marine surveys to identify and avoid sensitive habitats (e.g., spawning grounds, shellfish beds, coral reefs, seagrass meadows) • Conduct thorough environmental assessments/site-specific Biodiversity Management Plans. • Schedule cable installation outside of critical periods for fish and shellfish, such as spawning or migration seasons • Avoid work during peak fishing seasons to reduce disruption to local fisheries. • Use low-impact installation techniques (e.g., precision ploughing, jetting) to reduce sediment plumes. • Erect temporary sediment curtains or barriers to localize turbidity and protect sensitive areas • Implement spill prevention and response plans, train crews in hazardous material handling 	MoCTI PCU Contractor	MoCTI PCU / Relevant agencies	

- Filter-feeding shellfish are particularly sensitive to sediment plumes, which can reduce oxygen levels and food availability
- Construction vessels and machinery generate underwater noise and vibration, which can disturb fish, causing them to leave feeding or breeding areas
- noise can disrupt spawning or migration, especially for sensitive species
- Accidental spills of fuel, lubricants, or other hazardous materials from vessels can contaminate water and sediments, harming aquatic life
- Wastewater discharge and improper waste disposal during installation can also degrade water quality

Impacts on ocean seabed

- Disturbance of sediments may release contaminants (e.g., heavy metals, hydrocarbons) previously trapped in the seabed, potentially affecting water quality and marine life
- Cable installation stirs up sediments, increasing turbidity (cloudiness) in the water. This can smother benthic organisms, reduce light penetration, and affect photosynthetic species like seagrass
- Construction vessels and machinery generate underwater noise and vibration, which can disturb marine life, including fish and marine mammals

Impacts on turtles, sea grass meadows

- Submarine cable landings on beaches can disturb nesting sites, especially if construction occurs during the turtle nesting season
- Artificial lighting from construction activities may disorient hatchlings, causing them to move toward land rather than the sea, reducing survival rates
- Vessels and machinery used in cable installation may strike or injure turtles in nearshore waters.
- Increased noise and activity can cause turtles to abandon nesting or feeding areas

- Ensure all vessels comply with international pollution prevention standards (e.g., MARPOL).
- Inform local fishing communities in advance about installation schedules and exclusion zones.
- Provide alternative access or compensation if fishing grounds are temporarily inaccessible
- Restore disturbed areas where feasible, e.g., replanting seagrass or rehabilitating shellfish beds
- Monitor water quality, turbidity, and benthic recovery during and after installation.

- Use modern mapping and navigation systems to plan cable routes that minimize ecological disturbance.
- Use low-impact installation techniques (e.g., precision ploughing, jetting) to reduce sediment plumes and limit the width of the disturbed corridor
- Erect temporary sediment curtains or barriers to localize turbidity and protect sensitive areas.
- Schedule cable installation outside of critical periods for marine life, such as spawning or migration season
- Monitor water quality, turbidity, and benthic recovery during and after installation.

- Develop and implement site-specific Environmental and Social Impact Assessment (ESIA) along with the Environmental and Social Management Plans (ESMPs) and Biodiversity Management Plans (BMPs) that include monitoring, reporting and costing (See templates in appendix 2, 4 and 5 respectively).
- Conduct pre-construction surveys to identify turtle nesting beaches. Select cable landing sites away from known nesting areas whenever possible
- Use detailed marine surveys (bathymetry, side-scan sonar, ecological mapping) to identify and avoid seagrass meadows.
- Schedule beach works outside of nesting and hatching seasons to minimize disturbance

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<ul style="list-style-type: none"> ▪ Beach crossing and trenching for cable landings can degrade or destroy nesting habitat, especially if not carefully sited 	<ul style="list-style-type: none"> • Use shielded, low-intensity lighting directed away from the beach to prevent disorientation of hatchlings 		
<ul style="list-style-type: none"> ▪ Cable laying (trenching, ploughing, jetting) can uproot or bury seagrass, leading to loss of habitat for fish, turtles, and invertebrates. 	<ul style="list-style-type: none"> • Implement daily monitoring during nesting season. If a nest is discovered, halt work and consult local conservation authorities for appropriate action, which may include relocating the nest 		
<ul style="list-style-type: none"> ▪ Sediment plumes from cable installation can smother seagrass, reduce light penetration and photosynthesis, and affect overall meadow health 	<ul style="list-style-type: none"> • Train vessel operators to spot turtles and maintain safe speeds and distances 		
<ul style="list-style-type: none"> ▪ Physical Damage to Sensitive Habitats: Anchoring, cable burial, and repair activities may damage the seabed and associated habitats. 	<ul style="list-style-type: none"> • Cable Protection: In shallow waters, bury cables or use conduit pipes to minimize damage from anchoring and trawling 	Contractor	MoCTI PCU / Relevant agencies
<ul style="list-style-type: none"> ▪ Navigation Hazards: Cables may interfere with fishing activities and marine traffic if not properly routed and marked. 	<ul style="list-style-type: none"> • In shallow waters, bury cables or use conduit pipes to minimize damage from anchoring and trawling 	Contractor	MoCTI PCU / Relevant agencies
<ul style="list-style-type: none"> ▪ Pollution and accidental spills: Risks include oil and hydrocarbon spills from installation vessels, improper disposal of construction debris, and increased turbidity from seabed disturbance 	<ul style="list-style-type: none"> • Develop site-specific ESMPs, including waste management (appendix 12), spill prevention, and emergency response protocols • Ensure compliance with environmental regulations. • Implement vessel and equipment maintenance protocols, spill response plans, and use biodegradable hydraulic fluids. (See appendix 24 Sample Chemical Storage Plan (CSP)) 	MoCTI PCU Contractor	MoCTI PCU / Relevant agencies
<ul style="list-style-type: none"> ▪ Occupational Health and Safety (OHS): The main occupational risks during offshore cable installation are related to vessel operations, handling heavy equipment, and potential slips, trips, or falls on deck 	<ul style="list-style-type: none"> • Use only MARPOL-compliant, fully certified, and accredited cable-laying vessels • Ensure all crew and workers are trained in marine safety, emergency procedures, and use of life-saving equipment • Mandatory use of life jackets, harnesses, and other flotation devices for all personnel working on deck or near open water. • Safety lines and barriers on deck to prevent accidental falls • Availability of rescue boats, lifebuoys, and rapid response equipment on board. • Work scheduling to avoid adverse weather and sea conditions • Regular man-overboard drills and emergency response training • Inclusion of OHS requirements in contractor ESMPs (Environmental and Social Management Plans). 	Contractor	MoCTI PCU / Relevant agencies
<ul style="list-style-type: none"> ▪ Noise and Vibration: Underwater noise from cable-laying machinery can disturb marine mammals and fish populations. 	<ul style="list-style-type: none"> • Plan activities in consultation with communities so that noisiest activities are undertaken during periods that will result in least 	Contractor	MoCTI PCU / Relevant agencies

<p>Construction of land networks from CLS to cities may generate noise and vibration, affecting nearby residents.</p>	<p>disturbance; Limit construction activities to daytime hours and using noise barriers can help mitigate noise pollution.</p> <ul style="list-style-type: none"> Noise and vibration impacts are typically temporary and can be mitigated through scheduling and equipment selection. 		
<p>Cable landing station (CLS) and land network from CLS to the cities (Terrestrial Segment)</p>			
<p>Coastal Erosion and Habitat Alteration:</p> <ul style="list-style-type: none"> The installation of the submarine cable system may require the clearing of mangrove, seagrass, and other vegetation at the landing point The installation of submarine cable landing infrastructure, while essential for national connectivity, introduces additional risks of erosion and habitat alteration that must be carefully considered and managed 	<ul style="list-style-type: none"> Routing the cable through less erosion-prone zones to minimize habitat disturbance Use Horizontal Directional Drilling (HDD) to minimize disturbance to beaches and nearshore habitats Restoring mangroves and vegetative buffers at the landing site to stabilize soils. Designing shore facilities with soft engineering approaches (e.g., dune restoration, bio-shields) rather than hard infrastructure where possible. Monitoring shoreline changes before, during, and after construction to detect early signs of erosion. 	<p>Contractor</p>	<p>MoCTI PCU / Relevant agencies</p>
<p>Redistribution of silts and sediment from disturbance of the seabed leading to navigation problems near shore: Disturbance of the seabed during submarine cable installation can lead to the redistribution of silts and sediments. This process may temporarily increase turbidity and result in the movement of sediment plumes, which could potentially affect water quality and visibility.</p>	<ul style="list-style-type: none"> Employ cable-laying methods that minimize seabed disturbance, such as ploughing or directional drilling, especially in areas with high vessel traffic or sensitive habitats. Schedule installation activities during periods of low marine traffic and favorable weather conditions to reduce the risk of navigation problems and allow for rapid dispersion of sediment plumes. Monitor turbidity and sediment plumes during installation. Adjust operations if sediment levels exceed thresholds that could impact navigation or marine ecosystems. 	<p>Contractor</p>	<p>MoCTI PCU / Relevant agencies</p>
<p>Vegetation clearance and soil disturbance: Cable trenching may cause soil erosion and habitat loss.</p> <p>Clearing for cable trenches and station construction can result in loss of vegetation, soil erosion, and habitat fragmentation</p> <p>Construction of land networks from CLS to cities may involve trenching, excavation, and installation of cables, which can temporarily disturb land, vegetation, and local habitats.</p>	<ul style="list-style-type: none"> Minimize vegetation clearance; implement soil erosion and sediment control measures Limit vegetation clearance, implement erosion control measures (e.g., silt fences, replanting). 	<p>Contractor</p>	<p>MoCTI PCU / Relevant agencies</p>
<p>Water Pollution: Risks of spills and improper waste management during construction</p>	<ul style="list-style-type: none"> Develop and implement waste management plans for construction debris and hazardous materials (appendix 12) 	<p>Contractor</p>	<p>MoCTI PCU / Relevant agencies</p>

<p>▪ Dust and traffic from trenching and construction equipment: Increased vehicle movement and construction activities may pose risks to road safety and community health particularly during the dry season when winds are stronger.</p>	<ul style="list-style-type: none"> • Route cables along existing rights-of-way (roads, utility corridors) to minimize new land disturbance. • Traffic management plans: control vehicle speeds, signage, and safe access routes (See appendix 23 for sample TMP). • Proper site management and dust suppression measures are therefore essential to safeguard community health and livelihoods 	<p>Contractor</p>	<p>MoCTI PCU / Relevant agencies</p>
<p>▪ Construction of land networks from CLS to cities may involve the movement of construction vehicles and machinery can disrupt local traffic, increase accident risks, and pose hazards to both workers and communities.</p>			
<p>▪ Vegetation clearance and soil disturbance: Cable trenching may cause soil erosion and habitat loss.</p>	<ul style="list-style-type: none"> • Minimize vegetation clearance; implement soil erosion and sediment control measures 		
<p>▪ Clearing for cable trenches and station construction can result in loss of vegetation, soil erosion, and habitat fragmentation</p>	<ul style="list-style-type: none"> • Limit vegetation clearance, implement erosion control measures (e.g., silt fences, replanting). 	<p>Contractor</p>	<p>MoCTI PCU / Relevant agencies</p>
<p>▪ Construction of land networks from CLS to cities may involve trenching, excavation, and installation of cables, which can temporarily disturb land, vegetation, and local habitats.</p>			
<p>▪ Waste Generation: Construction generates solid and liquid waste, including hazardous materials (e.g., used oil, scrap metal)</p>	<ul style="list-style-type: none"> • Develop and implement a Waste Management Plan, including safe disposal of hazardous waste (appendix 12) 		
<p>▪ Construction of land networks from CLS to cities may generate solid and hazardous waste, and may cause minor spills (e.g., hydrocarbons).</p>		<p>Contractor</p>	<p>MoCTI PCU / Relevant agencies</p>
<p>▪ Marine Debris – accidental disposal or spillage from cable-laying vessels, including ropes, nets, and construction offcuts, which could end up in the marine environment.</p>			
<p>▪ Electromagnetic Fields (EMF): Operational cables emit EMFs, which may affect certain marine species</p>	<ul style="list-style-type: none"> • Use cables with metallic sheaths or armoring, which help contain and reduce the emission of electric fields. While magnetic fields are harder to shield, proper cable design can minimize their strength • Ensure that the electric field in seawater remains below internationally accepted thresholds • Incorporate EMF mitigation and monitoring requirements in the Environmental and Social Management Plan (ESMP) and ensure contractors and operators are trained. 	<p>Contractor</p>	<p>MoCTI PCU / Relevant agencies</p>

Climate Risks

- Coastal zones highly exposed to flooding from heavy rainfall, storm surges, and long-term sea-level rise. Flooding can damage landing stations, disrupt connectivity, and cause loss of equipment and data.
 - Increasing frequency and intensity of storms and high winds can cause physical damage to both submarine cables (especially near-shore) and landing stations.
 - The Western Peninsula is prone to landslides and coastal erosion, which can undermine the stability of cable routes and landing station sites.
 - Rising temperatures can affect the longevity and efficiency of network equipment, increase cooling requirements, and stress energy supply systems.
- Emphasize the need for resilience-focused investments and adaptive planning.
 - Select landing station sites outside high flood hazard zones and above projected sea-level rise lines. Use deep anchors and elevated platforms for critical infrastructure
 - Bury cables in gently sloping, sandy or silty seafloors to minimize exposure. Avoid areas with strong currents and high marine traffic to reduce risk of damage
 - Use weather-resistant, waterproof materials and climate-resilient design standards for buildings and equipment
 - Maintain coastal vegetation and mangroves to buffer against flooding and erosion

Operations and Maintenance Phase: Marine Segment

Seabed Disturbance: O&M activities such as cable repairs may disturb the seabed, affect benthic habitats and increase turbidity.

- Avoid sensitive habitats (coral reefs, seagrass beds, marine protected areas)
- Bury cables using armoring to protect against fishing gear and anchors.
- Regularly inspect cable routes and monitor marine life for changes.

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Noise Pollution: Vessel movements and underwater operations generate noise, which can temporarily disturb marine mammals and fish.

- Use low-noise equipment and schedule operations to avoid sensitive periods for marine fauna.

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Pollution Risk: Accidental spills of fuel, lubricants, or chemicals from vessels during maintenance pose a risk to water quality and marine life. Waste from cable repairs

- Ensure vessels comply with MARPOL standards, maintain spill response kits, and implement waste management plan

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Operations and Maintenance Phase: Terrestrial Segment

Energy Consumption: due to continuous operation of servers, cooling systems, lighting, and security infrastructure.:

- Use servers, cooling systems, and lighting with high energy efficiency ratings
- Source electricity from solar, or other renewables where feasible
- Ensure electrical systems are serviced to maintain efficiency

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Low GWP and No-ODS Refrigerants: Cooling systems (HVAC, air conditioning, and refrigeration) often use hydrofluorocarbons (HFCs) or

- Replace HFC/HCFC refrigerants with low GWP, non-ODS options
- Install sensors and conduct regular checks to prevent and address leaks.

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hydrochlorofluorocarbons (HCFCs), which are potent GHGs and ozone-depleting substances (ODS).

Greenhouse Gases (GHGs): Direct emissions from on-site fuel combustion (e.g., generators).

- Train technicians in safe refrigerant management and ensure proper recovery and recycling at end-of-life

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Solid Waste: The CLS produces small amounts of domestic waste (e.g., packaging, office waste) and wastewater

Hazardous Materials: Maintenance may involve handling hazardous materials (e.g., batteries, lubricants). Codes of practice for e-waste and hazardous waste management should be in place

- Implement WMP for solid and hazardous waste (appendix 12), including e-waste from equipment (appendix 13)
- Set up dedicated, labeled storage areas for e-waste
- Partner with certified e-waste recyclers for safe disposal and recycling
- Maintain emergency procedures for fire, electrical faults, and hazardous material spills.
- Install smoke detectors, fire alarms, and automatic suppression systems
- Store flammable materials and refrigerants in ventilated, secure areas away from ignition sources
- Conduct routine operations to minimize noise, mainly from air conditioning and backup generators.

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Noise Impacts: Routine operations generate minimal noise, mainly from air conditioning and backup generators.

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Potential Social Risks and Impacts (Construction phase)

Recommended Mitigation Measures

Responsibility (Implementation)

Responsibility (Monitoring)

Land acquisition and resettlement including displacement, loss of livelihoods: Construction of the terrestrial link may require land acquisition, potentially leading to physical or economic displacement of residents or businesses.

Construction of land network from CLS to the cities may disrupt local businesses, traffic, and community activities, especially in densely populated urban areas.

Cumulative impacts arise if multiple projects require land in the same area, increasing displacement and social tension

Cultural heritage risks: Risk of disturbing archaeological or cultural sites during excavation and trenching activities

- Resettlement Framework: Use existing rights-of-way and public land where possible; prepare a Resettlement Framework (RF) (annex 1 23) and site-specific Resettlement Plans (RPs) (appendix 2) if needed
- Consult with local fishing communities to minimize disruption and provide compensation or alternative livelihoods if necessary. (Appendix 10: Livelihood Restoration Plan (LRP) Template)

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- Include protocols for handling unexpected discoveries of cultural or archaeological significance. Chance finds procedures must be in place

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<p>Interference with Fishing Activities and Livelihood Disruption: Temporary exclusion zones and disturbance may affect artisanal and commercial fisheries, especially near the coast. Fishermen and coastal communities may lose access to fishing grounds or experience reduced catches due to cable installation and landing station construction. Cumulative impacts occur if several projects restrict access to fishing grounds or alter fish populations.</p>	<ul style="list-style-type: none"> • Compensation and Livelihood Restoration: Provide fair compensation and support for affected fishermen and other groups, including alternative livelihood programs if needed (Appendix 10: Livelihood Restoration Plan (LRP) Template) • Stakeholder Engagement: Consult with local fishing communities to minimize disruption and provide compensation or alternative livelihoods if necessary 	<p>MoCTI Contractor</p>	<p>PCU</p>	<p>MoCTI PCU</p>
<p>Labor Influx and SEA/SH: The presence of outside workers can lead to social tensions, increased risk of sexual exploitation and abuse (SEA), gender-based violence (GBV), and communicable diseases</p>	<ul style="list-style-type: none"> • Labor Management Procedures (LMP): Establish fair hiring practices,, provisions for safe and equitable working conditions.---- worker grievance mechanisms, and occupational health and safety protocols • SEA/SH Action Plan: Prepare and enforce a SEA/SH Action Plan, including codes of conduct for workers, training, and survivor-friendly reporting channels 	<p>MoCTI PCU Contractor</p>		<p>MoCTI PCU</p>
<p>Exclusion of Vulnerable Groups: Risk that women, youth, and marginalized groups may not benefit from employment or project opportunities</p>	<ul style="list-style-type: none"> • Prepare and implement the SEP. • Ensure that vulnerable and marginalized individuals/groups are included in the project activities. Implement measures to prevent elite capture and ensure equitable access to benefits. • Community Sensitization: Conduct awareness campaigns on project risks, benefits, and available support services. 	<p>MoCTI PCU Contractor</p>		<p>MoCTI PCU</p>
<p>Community Health and Safety: Construction activities may increase risks of accidents, disease transmission, and other health hazards. Construction of land networks from CLS to the cities can expose communities to health and safety risks, including communicable diseases, accidents, and hazardous materials.</p>	<ul style="list-style-type: none"> • Enforce strict prohibition of child labor and implement labor management procedures (appendix 2) • Develop and implement a SEA/SH Action Plan • Implement health screening and monitoring for workers. • Provide personal protective equipment (PPE) and enforce hygiene protocols • Prepare and enforce traffic management plans (appendix 23) • Develop emergency response procedures for accidents, spills, and natural disasters. 	<p>MoCTI PCU Contractor</p>		<p>MoCTI PCU / Relevant agencies</p>
<p>Health and safety risks: Construction activities could increase risks to workers and nearby residents. Marine Risks: Risks of drowning, vessel collisions, and accidents during offshore cable laying, especially under rough sea conditions</p>	<ul style="list-style-type: none"> • Ensure adequate protection for workers, including the use of personal protective equipment (PPE), and compliance with occupational safety regulations. Regular safety training and monitoring should be conducted. • Proper training, protective equipment, and adherence to safety protocols 	<p>Contractor</p>		<p>MoCTI PCU / Relevant agencies</p>

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<p>Child Labor: There is a risk of child labor in the project works</p>	<ul style="list-style-type: none"> • Implement worker health and safety standards (PPE, training, emergency response plans). (Appendix 16: Occupational Health and Safety (OHS) Procedures) • Age verification criteria should be enforced to prevent child labor All workers must provide official identification (e.g., birth certificate, national ID) to verify age before employment. 	<p>Contractor</p>	<p>MoCTI PCU / Relevant agencies</p>
<p>Spread of Diseases: The influx of contract workers may lead to the spread of sexually transmitted diseases (like HIV/AIDS) and unwanted pregnancies</p>	<ul style="list-style-type: none"> • Implement measures to prevent the spread of diseases, including health screenings and awareness programs for the contractor workers and community members 	<p>Contractor</p>	<p>MoCTI PCU / Relevant agencies</p>
<p>Social Conflicts: There may be social conflicts in some areas that could hinder the implementation of the activities.</p>	<ul style="list-style-type: none"> • Prepare and Implement a Stakeholder Engagement Plan (SEP) and accessible Grievance Redress Mechanism (GRM) for affected communities • Engage local authorities and communities in the implementation of the project to manage and mitigate social conflicts. • Community Sensitization: Conduct awareness campaigns on project risks, benefits, and available support services. 	<p>MoCTI PIU Contractor</p>	<p>MoCTI PCU / Relevant agencies</p>
<p>Gender-Based Violence (GBV): The influx of contractor workers and the provision of social support programs can be associated with increases in GBV.</p>	<ul style="list-style-type: none"> • Develop and implement a GBV Prevention and Response Action Plan. Establish Codes of Conduct for all workers involved in the project and implement grievance mechanisms that are accessible to survivors of GBV. The project will develop and implement LMP. (see sample Appendix 20: Sample Code of Conduct for Contractors’ GBV/SEA/SH Prevention and Response in appendix 20). 	<p>MoCTI PIU Contractor</p>	<p>MoCTI PCU / Relevant agencies</p>
<p>Operations and Maintenance Phase</p>			
<p>Disruption to Marine Activities: Repair vessels and marker buoys may temporarily restrict fishing and shipping.</p>	<ul style="list-style-type: none"> • Maintain open communication about O&M schedules and impacts. • Provide timely updates during service disruptions 	<p>Contractor</p>	<p>MoCTI/ Relevant agencies</p>
<p>Safety Risks: It is expected that the CLS is a secure facility, with limited public access. Risks to community health and safety may be minimal, but emergency response procedures should be in place</p>	<ul style="list-style-type: none"> • Ensure emergency response procedures should be in place for fire, electrical faults etc 	<p>Contractor</p>	<p>MoCTI/ Relevant agencies</p>
<p>Traffic: Occasional maintenance may bring service vehicles to the CLS site and may have minimal disruptions to local traffic patterns.</p>	<ul style="list-style-type: none"> • Ensure traffic impacts are managed appropriately in conjunction with the traffic agencies 	<p>Contractor</p>	<p>MoCTI/ Relevant agencies</p>
<p>Social Inclusion and Vulnerable Groups: There may be issues of digital exclusion for disabled, elderly, illiterate, or poor populations if broader connectivity programs are not inclusive</p>	<ul style="list-style-type: none"> • Ensure that digital connectivity benefits are accessible to all, including vulnerable groups. 	<p>MoCTI</p>	<p>MoCTI/ Relevant agencies</p>

Stakeholder Engagement and Grievance Redress:	<ul style="list-style-type: none"> • Implement the stakeholder engagement plan (SEP) and maintain accessible grievance mechanisms. 	MoCTI/ Contractor	MoCTI/ Relevant agencies
Potential Environmental and Social Risks and Impacts	• Recommended Mitigation Measures	Responsibility (Implementation)	Responsibility (Monitoring)
Decommissioning of Submarine Cables	<ul style="list-style-type: none"> • 		
Cable Removal: If cables are recovered, impacts are similar to installation localized seabed disturbance, temporary turbidity, and potential disruption to marine life and fisheries.	<ul style="list-style-type: none"> • See mitigation measures for the installation/construction phase (marine and terrestrial segment) • Sussex beach may be used by sea turtles for nesting. Lighting and construction activities should be managed to avoid disturbing hatchlings and nests 	Contractor	MoCTI/ Relevant agencies
Navigation Safety	<ul style="list-style-type: none"> • Coordinate with maritime authorities, issue navigation warnings, and mark vessels and work areas clearly 	Contractor	MoCTI/ Relevant agencies
Community Livelihoods	<ul style="list-style-type: none"> • Ensure that local businesses, tourism, and artisanal fishers are consulted and impacts minimized or compensated 	Contractor	MoCTI/ Relevant agencies

5.2 Special Assistance for Vulnerable PAPs

Disproportionately impacted groups who mostly vulnerable due to their distinct livelihood strategies, ways of living and other socio-economic dynamics. For these individuals/ groups, in addition to resettlement, compensation and livelihood restoration programs, additional mitigation mechanisms are required. i.e. assistance in the compensation payment procedure, assistance in moving properties and identifying the resettlement plot (as needed), assistance in building activities, assistance during the post-resettlement period and health care if required, particularly during the moving and transition periods. The Project will consider, but not limited to the following mechanisms.

- The continuous awareness creation efforts of the project will ensure constant information flow especially to vulnerable groups including poor women, elderly and persons with disabilities. Hold separate focused group discussions (FGDs) with women and other vulnerable groups identified by the E&S assessment.
- Promote transparent procedures and avoid discrimination in recruitment process, ensure terms of employment and working conditions to include protection for vulnerable workers (e.g. women and persons with disabilities).
- Contractors to adapt the Labor Management Procedures to ensure availability of clear recruitment protocols, written employment contracts with clear working conditions, protection of vulnerable workers, prohibit the use of forced and child labor, availability of Grievance Mechanism for workers complaints etc.
- Engage CBOs and NGOs who are active in the Project implementation areas to help provide outreach programs and tailored programs to vulnerable groups and individuals.
- A systematic and functional GRM should be adopted to address the concerns of aggrieved parties (PAPs, vulnerable groups including women, gender-sensitive issues, workplace concerns and community concerns).

Moreover, the project will work on suitable design and standards for the proposed deployment of new submarine cable systems and landing stations will address the needs of girls, women, boys, and people with disabilities (such as brails, radio broadcasts, using sign languages, etc.).

By enforcing gender sensitive infrastructure, WARDIP SOP2 will emphasize gender and social inclusion, and services for women, girls and disability conditions.

6. Environmental and Social Monitoring

The aim of monitoring is to determine whether interventions have been effective in dealing with the negative impacts, whether further interventions are needed, or whether monitoring is to be extended in some areas. Monitoring indicators will be very much dependent on specific project contexts. The MoCTI PCU, designated Environmental and Social Specialists, will be responsible for overall monitoring and reporting on compliance with the ESMF ensuring that the subproject is screened, their environmental and social instruments are prepared, cleared and disclosed prior to approval. The SPV will ensure that the Environmental and Social Specialists, as well as the ESHSRMS, are in place. The MoCTI PCU and SPV will also ensure that contractors executing the work are implementing the specific ESMP for the subprojects that require it and submit reports on ESMP implementation as required.

The MoCTI PCU and SPV will keep records of complaints received, resolved, accidents, and other environmentally or socially related topics of relevance and importance for this project. This data will be reflected in biannual reports on safeguard compliance to be furnished to the Bank. The Bank will conduct periodic audits of the projects and access documented information.

As per the commitment specified in the ESCP, any project-related fatalities or serious injuries will be reported to the World Bank within 48 hours after learning of the incident and in accordance with ESCP obligations and World Bank procedures. All employers under this project are therefore required to maintain insurance for workers and third-party liability. The monitoring indicators with verified indicators and responsible institutions are as in Table 13.

The actual impacts caused by project implementation should be closely monitored during the construction and operation of the project to examine the effectiveness of the mitigation measures. The goals of monitoring are to measure the success rate of the project, determine whether interventions have resulted in dealing with negative impacts, and whether further interventions are needed, or monitoring is to be extended in some areas. Table 13 describes the Monitoring and Evaluation Framework for the ESMF.

Table 13: Monitoring and Evaluation Framework for the ESMF

S / N	PHASE	INSTITUTION RESPONSIBLE	PERFORMANCE INDICATORS	METHOD OF MEASUREMENT	PERIOD TO BE CONDUCTED
1	PREPARATION/ PRE-CONSTRUCTION PHASE	MoCTI PCU, SPV /independent consultant Monitoring by government entities (EPA, MoCTI PCU, SPV and relevant government agencies)	Number/% of Staff/ Consultants/ Engineers who received training on ESMF, ESMP, environmental, and social accountability training, Number of Subprojects with environmental and social screening checklist filled, reviewed and approved ESMP, and other site-specific plans including ESIA, RP, etc prepared. Establishment 96 and functionality of GRM.	Training attendance registry and records log of all subprojects, indicating whether E&S screening and E&S instruments were conducted GRM logs, resolution tracking	Before commencement of any civil works and contractor mobilization to site

S / N	PHASE	INSTITUTION RESPONSIBLE	PERFORMANCE INDICATORS	METHOD OF MEASUREMENT	PERIOD TO BE CONDUCTED
2	CONSTRUCTION PHASE	MoCTI PCU, SPV /Contractor/ Independent Consultant	<p>Turbidity (NTU), Oil/Hydrocarbon Spills (mg/L or liters), Water Quality (pH units, mg/L), Underwater Noise (dB), Benthic Habitat Disturbance (Area (m²), Solid Waste Generation (kg or tons), Hazardous Waste (kg or liters), Dust µg/m³ (PM10/PM2.5), Noise (dB), Soil Erosion</p> <p>Community Health and Safety, /Accident/Incident Reporting (Number of incidents), Traffic and Access (Number of disruptions), Grievance Redress Mechanism (GRM) (Number of complaints resolved/pending) / SEA/SH (Number of cases, % workers trained), Worker Age Verification (% compliance), Stakeholder Engagement (Number of meetings, number of participants)</p> <p>Number/ % of Staff/ Consultants/ Contractors/ Engineers/ community representatives who received training on ESMP, environmental, social accountability training Grievance redress mechanism operational and effective (no. of grievances logged, resolved, pending, etc.) GRC established and operational.</p> <p>Contractor’s staff sensitized Gender base violence (GBV).</p>	<p>Water sampling, turbidity meter, Water sampling (pH, DO, BOD, COD, heavy metals) Hydrophone, sound level meter, Remote sensing, Waste logs, dust monitor, Sound level meter, Visual inspection,</p> <p>Incident logs and surveys, Traffic counts, observation, GRM logs, ID checks, Meeting logs, attendance records</p> <p>training attendance registry and records</p> <p>GRM logs, resolution tracking</p> <p>Record attendance at GBV sensitization sessions; GBV training statistics in contractor monthly reports.</p> <p>register of all contractor staff, with signed CoC forms</p> <p>existence of CESMP for each contract,</p>	During civil works implementation

S / N	PHASE	INSTITUTION RESPONSIBLE	PERFORMANCE INDICATORS	METHOD OF MEASUREMENT	PERIOD TO BE CONDUCTED
			<p>Number of Contractor staff who have signed CoC</p> <p>CESMP prepared and implemented by contractor</p> <p>Stakeholder consultations undertaken with project affected people. Standard operating procedures for best environmental practices established</p> <p>Waste management plan developed and implemented</p> <p>Emergency Response Plan prepared and implemented.</p>	<p>with date of preparation and approval by PIU</p> <p>records of consultation events and reports</p> <p>implementation through site inspections and interviews</p> <p>existence of Waste Management Plan (WMP)</p> <p>Emergency Response Plan (ERP) is prepared/ regular drills and record participation</p>	
3	OPERATION AND MAINTENANCE PHASE	Contractor The implementing agencies involved in the Project (MoCTI PCU, SPV and relevant government agencies)	<p>Are environmental and social monitoring mechanisms in place such as energy usage, refrigerant inventory and leakage, e-waste volumes and emergency drills conducted?</p> <p>Is disaster and emergency mechanism in place?</p> <p>Training provided to E&S staff of relevant government agencies on ESMP implemented</p> <p># of cases of traffic accidents</p> <p>ESMP measures being implemented.</p> <p>No. of complaints recorded, resolved, pending, from communities</p>	<p>utility meters installed at project sites or facilities.</p> <p>register of all refrigeration and air conditioning equipment,</p> <p>Implement and monitor an E-Waste Management Plan, log of all emergency drills</p> <p>conducted/report</p> <p>Periodic drills and records</p> <p>Traffic Incident Reporting Logs</p> <p>Grievance Redress Mechanism (GRM) log</p>	Operational and Maintenance phase to project closure

S / N	PHASE	INSTITUTION RESPONSIBLE	PERFORMANCE INDICATORS	METHOD OF MEASUREMENT	PERIOD TO BE CONDUCTED
4	DECOMMISSIONING PHASE	The implementing agencies involved in the Project MoCTI PCU/ Contractor and relevant government agencies	Decommissioning plan been conducted. Disaster and emergency mechanism in place Standard operating procedures for best environmental practices established. # of complaints registered, resolved, referred, etc. from communities.	Existence of Decommissioning Plan Periodic drills and records Grievance Redress Mechanism (GRM) log	During decommissioning of the project

6.1 Environmental and Social Monitoring Reporting Arrangements

The Environmental and Social Specialists of the MoCTI PCU are responsible for conducting E&S monitoring of E&S implementation by construction contractors, including consultations and feedback from relevant stakeholders involved as per principles and requirements prescribed in the project’s ESMF including RF, LMP and SEP. Regular E&S monitoring and reporting requirements are summarized in Table 14.

Table 14: Environmental and Social Monitoring and Reporting Requirements

No	Report Prepared by	Submitted to	Frequency of Reporting
1	Contractors	MoCTI PCU and SPV	Monthly on ESHS performance in accordance with the metrics specified in the respective bidding documents, contracts
2	Supervision consultant	MoCTI PCU and SPV	Monthly on ESHS performance in accordance with the metrics specified in the respective bidding documents, contracts
3	Environmental and Social (GBV) Specialists in MoCTI PCU. Environmental and Social Specialists (SPV)	MoCTI PCU and SPV	Monthly, as soon as possible, as required
4	MoCTI PCU	WB	Quarterly reports, in line with the ESCP throughout Project implementation, starting with the Project Effective Date: This will include regular monitoring reports on the environmental, social, health and safety (ESHS) performance of the Project, including but not limited to the implementation of the ESCP, status of preparation and implementation of E&S instruments required under the ESCP, stakeholder engagement activities, and

			<p>functioning of the grievance mechanism(s) including those related to the resettlement and cases of Sexual Exploitation and Abuse, Sexual Harassment (SEA/SH) and Violence against Children (VAC).</p> <p>Number and status of resolution of incidents and accidents</p> <p>Bi-annually for M&E report</p>
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In addition to the regular reporting schedule, in line with the ESCP, reporting arrangements are needed for serious incidents, causing death, injury, or other major problems. The MoCTI PCU and SPV must notify the World Bank within 48 hours after becoming aware of the incident or accident, including the complete investigation form, complete Root Cause Analysis (proportionate to the severity of the incident), and undertake immediate mitigation measures as well as medium- and longer-term corrective actions to prevent the incident from recurring. See Appendix 15 for Sample Incident Form.

7. Environmental and Social Management Procedures and Implementation Arrangements

7.1 Environmental and Social Risk Management Procedures

To ensure environmental and social impacts and risks of sub-projects/activities under Components 2 are properly screened and identified, risks should be managed and reported on, in line with ESS1 and the national laws. . These requirements have been reflected in the of Sierra Leone WARDIP SOP2 Environmental and Social Commitment Plan (ESCP) which outlines necessary actions by the MoCTI PCU and SPV to meet WBG environmental and social standards. The ESCP has been prepared and disclosed in country and on the World Bank external website.

The environmental and social risk management procedures will be implemented through the Project’s subproject selection process. In summary, the procedures aim to do the following:

7.2 Subproject Assessment and Analysis – E&S Screening

Screening is a key step for an initial identification of environmental and social (ES) risks and impacts of a project and is carried out at an early stage of any Environmental and Social Assessment (ESA) process. As a first step, all proposed activities should be screened to ensure that they are within the project boundaries. For all activities, the MoCTI PCU and SPV should use the Screening Form in Appendix 1 to identify and assess potential environmental and social risks and impacts and identify the appropriate mitigation measures for the subproject. The Screening Form lists the various mitigation measures and plans that may be relevant for the specific project activities (such as, the Environmental and Social Impact Assessment including an Environmental and Social Management Plan, and a Biodiversity Management Plan. Given that the overall project risk rating is Substantial, any subprojects categorized as High risk will not be eligible for funding. In addition, the MoCTI PCU and SPV should identify the documentation, permits, and clearances required under the government’s Environmental Regulation of the Environment Protection Agency Sierra Leone (EPASL).

7.3 Subproject Formulation and Planning – E&S Planning

Based on the process above and the Screening Form (Appendix 1), the MoCTI PCU will adopt the necessary environmental and social management measures already included in the Annexes of this ESMF and will be a mandatory part of construction contract or bidding documents (Appendix 3), or develop relevant site-specific environmental and social management plans.

The consultants engaged by the MoCTI PCU will prepare the ESIA/ESMPs, and other applicable documents as needed. The MoCTI PCU will provide approval and compile ESIA/ESMPs and other applicable forms. The contents of the ESIA/ESMPs will be shared with relevant stakeholders in an accessible manner, and consultations will be held with the affected communities on environmental and social risks and mitigation measures. The ESIA/ESMPs must be cleared by the World Bank before procurement or civil work begins. If certain subprojects or contracts are being initiated at the same time or within a certain location, an overall ESMP covering multiple subprojects or contracts can be prepared. The SPV will ensure that the Environmental and Social Specialists, as well as the ESHSRMS, are in place.

The MoCTI PCU and SPV will also complete the documentation, permits and clearances required under the government’s Environmental Regulation before any project activities begin. Staff who will be working

on the various subproject activities should be trained in the environmental and social management plans relevant to the activities they work on. The MoCTI PCU and SPV should provide such training for field staff.

The MoCTI PCU and SPV should also ensure that all selected contractors, subcontractors, and vendors understand and incorporate environmental and social mitigation measures relevant to them as standard operating procedures for civil work. The MoCTI PCU and SPV should provide training to selected contractors to ensure that they understand and incorporate environmental and social mitigation measures; and plan for cascading training to be delivered by contractors to subcontractors and vendors. The MoCTI PCU should further ensure that the entities or communities responsible for ongoing operation and maintenance of the investment have received training on operations stage environmental and social management measures as applicable.

7.3.1 Environmental and Social Instruments

For subproject activities, based on the results of the environmental and social screening, MoCTI PCU may be required to prepare site-specific instruments such as Environmental and Social Impact Assessments (ESIAs) (Appendix 2), Environmental and Social Management Plans (ESMPs) (Appendix 4), Biodiversity Management Plans (BMPs) (Appendix 5), and Resettlement Plans (RPs)(Appendix 6). These instruments shall be prepared, consulted upon, and disclosed prior to the implementation of the specific activity for which they are required. In addition, other specific Environmental and Social (E&S) management plans may be prepared, as necessary, in line with the applicable Environmental and Social Standards (ESSs)—such as Occupational Health and Safety (OHS) Plans (Appendix 16), Waste Management Plans (Appendix 162), e-Waste Management Plans (Appendix 13), Traffic Management Plans (Appendix 23), or Community Health and Safety Plans.

The MoCTI PCU shall carry out an appropriate ESA to assess the risks and impacts of the project activities throughout the project life cycle. The ESA shall be proportionate to the nature and significance of such risks and impacts. It will be conducted pursuant to EPA Acts 2008/2010 and applicable national requirements and shall meet the ESS requirements as stated in the ESF. Sample TORs for the preparation of an ESIA and ESMP are contained in Appendix 2 and 4 respectively.

7.4 Implementation and Monitoring – E&S Implementation

During implementation, MoCTI PCU and SPV will ensure that the approved site-specific ESIA/ESMP will be included as part of the bidding documents and contract conditions to ensure that environmental and social obligations are contractually binding on contractors. In addition, it should be required that each contractor prepare a Contractor Environmental and Social Management Plan (C-ESMP) (See Appendix 22-Sample Outline of Contractor ESMP), consistent with the approved ESMP and relevant E&S instruments, prior to the start of any site activities.

The MoCTI PCU and SPV will conduct regular monitoring visits. The MoCTI PCU and SPV working to implement the project will ensure that monitoring practices include the environmental and social risks identified in the ESMF and will monitor the implementation of E&S risk management mitigation plans as part of regular project monitoring.

At a minimum, the reporting will include (i) the overall implementation of E&S risk management instruments and measures, (ii) any environmental ~~to~~ social issues arising as a result of project activities and how these issues will be remedied or mitigated, including timelines, (iii) Occupational Health and

Safety performance (including incidents and accidents), (iv) community health and safety, (v) stakeholder engagement updates, in line with the SEP, (vi) public notification and communications, (vii) progress on the implementation and completion of project works, and (viii) summary of grievances/beneficiary feedback received, actions taken, and complaints closed out, in line with the SEP. Reports from the local council levels will be submitted to the MoCTI PCU at the national level, where they will be aggregated and submitted to the World Bank on a quarterly basis.

Throughout the Project implementation stage, the MoCTI PCU and SPV will continue to provide training and awareness raising relevant stakeholders, such as staff, selected contractors, and communities, to support the implementation of environmental and social risk management mitigation measures.

The MoCTI PCU and SPV will also track grievances/beneficiary feedback (in line with the SEP) during project implementation to be used as a monitoring tool for implementation of project activities and environmental and social mitigation measures.

If the MoCTI PCU and SPV becomes aware of a serious incident in connection with the project, which may have significant adverse effects on the environment, the affected communities, the public, or workers, it should notify the World Bank 48 hours after learning about the incident or accident and provide available details upon request in line with the ESCP.

7.5 Review and Evaluation - E&S Completion

Upon completion of Project activities, the MoCTI PCU and SPV will review and evaluate progress and completion of project activities, and all required environmental and social mitigation measures. Especially for civil works, the MoCTI PCU will monitor activities with regard to site restoration and landscaping in the affected areas to ensure that the activities are done to an appropriate and acceptable standard before closing the contracts, in accordance with measures identified in the ESMPs and other plans. The sites must be restored to at least the same condition and standard that existed prior to commencement of works. Non-compliance issues must be closed out before final payment or contract closure. . The MoCTI PCU will prepare the completion report describing the final status of compliance with the E&S risk management measures and submit it to the World Bank.

7.6 Technical Assistance Activities

Targeted technical assistance will also be provided to further strengthen both public and private stakeholders in implementing these structures effectively. In addition to supporting the second submarine cable, the project will provide technical assistance to explore alternative international and cross-border connectivity routes to further enhance network resilience. By reducing reliance on a single path, these measures will mitigate the risk of service disruption from extreme weather events, flooding, or coastal erosion. Activities include assessing the feasibility of leveraging existing regional infrastructure—such as the Côte d'Ivoire–Liberia–Sierra Leone–Guinea (CLSG) transmission line under the West African Power Pool (WAPP), which includes embedded OPGW fiber—for cross-border connectivity. Using OPGW fiber not only provides cost-effective redundancy but also significantly cuts GHG emissions by avoiding new trenching and civil works. The project will support route planning, infrastructure audits, and risk assessments to identify reliable terrestrial paths and reduce single points of failure.

The MoCTI PCU will ensure that the consultancies, studies (including technical feasibility studies), capacity building, training, and any other technical assistance activities under the Project are carried out in

accordance with terms of reference acceptable to the World Bank and that are consistent with the ESSs and comply with the terms of reference.

7.7 Contingency Emergency Response Component

Under Component 6, a CERC is included in the project in accordance with Investment Project Financing (IPF) Policy, paragraphs 12 and 13, for Situations of Urgent Need for Assistance and Capacity Constraints. This will allow for rapid reallocation of [loan/credit/grant] uncommitted funds in the event of an eligible emergency. To meet CERC activation requirements, the Government will prepare a CERC Manual, submit an Emergency Action Plan (EAP), and meet the E&S requirements agreed in the EAP and ESCP.

According to the project ESCP, a CERC ESMF shall be prepared within 3 months for the project’s effectiveness. If the CERC is activated, the CERC ESMF should be updated before CERC activities may begin and should thereafter be implemented throughout the Project implementation.

7.8 Implementation Arrangements

The MoCTI PCU will be responsible for Project implementation, including ESF. In Sierra Leone, the existing Project Coordination Unit (PCU) of the ongoing Sierra Leone Digital Transformation Project (P177077) will serve as the PCU of the WARDIP SOP2. Building on its current mandate and capacity, the PIU will be responsible for core implementation functions, including environmental and social risk management. The MoCTI PCU will recruit and maintain one Social & GBV specialist to complement the work of the existing Environmental Specialist. The SPV will recruit and maintain qualified staff, including one Environmental Specialist and one Social Specialist to oversee the implementation of the ESHSRMS. The PCU will also coordinate closely with the SPV to ensure that a defined portion of IDA proceeds is channeled as equity to the SPV on behalf of the Government of Sierra Leone and will also operate in accordance with the ESMF.

Activities having an environmental footprint shall obtain an Environmental Impact Assessment (EIA) license to start work. There are mechanisms in place to ensure compliance. EPASL has developed an environmental regulation through the Bank’s support and has benefitted from training on the ESF. There is familiarity with the Bank’s ESF by EPASL.

The ESMF implementation will involve the following roles and responsibilities and provides details by relevant parties during project implementation. Table 15 show the implementation arrangements for the ESMF. Figure 16 is a schematic representation of the institutional/implementation arrangements of the ESMF/ESMP/RP/LMP

Table 15: Implementation Arrangements

Level/ Responsible Party	Roles and Responsibilities
MoCTI PCU	<ul style="list-style-type: none"> • Ensure project activities do not fall under the Negative List(e,g cable routing through legally protected marine areas, Ramsar sites, or critical habitats, construction or trenching in areas of high biodiversity value or designated conservation zones, activities that would result in irreversible loss or fragmentation of sensitive marine or coastal ecosystems.) (See Appendix 1b). Fill out Screening Forms (Appendix 1a) for relevant subproject activities • Supervise and monitor the environmental and social risk management system and activities of national Special Purpose Vehicle (SPV). • Ensure that the Environmental and Social Specialists are in place at the SPV

- Oversee daily implementation and monitoring of environmental and social mitigation measures and report progress and performance monthly.
 - Provide training to local contractors and communities on relevant environmental and social mitigation measures, roles, and responsibilities.
 - If contracting is managed regionally, ensure that all bidding and contract documents include all relevant E&S management provisions per screening forms, ESMPs, and ESCOPs.
 - Planning and implementation of ESMP
 - Ensuring that the social and environmental protection and mitigation measures in the ESMP
 - are incorporated in the Construction Environmental and Social Management Plan (CESMP)
 - Ensuring that the Construction Supervision Consultant commits and retains dedicated staff as
 - social and environmental managers to oversee C-ESMP implementation
 - Supervision and monitoring of the progress of activities of the consultants and contractors for
 - the implementation of different components of ESMP
 - Provide guidance to Construction Supervision Consultant and contractors in conducting
 - subsequent monitoring and reporting and in undertaking corrective options
 - Responsible for modifications to the ESMP when unforeseen changes are observed during
 - implementation.
 - Ensure submission of periodical environmental and social management and monitoring
 - reports to the steering committee and the World Bank.
 - Promote improved social and environmental and social performance through the effective use
 - of management systems.
 - External communications with other implementing partners, government ministries and
 - agencies, and non-government organizations on the matters related to environmental and
 - social management under the project.
- SPV
- Develop, disclose, implement and maintain an Environmental, Social, Health and Safety Risk Management System (ESHSRMS) to ensure systematic identification, assessment, and management of ESHS risks across its operations, consistent with all relevant ESSs
 - Ensure that the Environmental and Social Specialists are in place
 - Prepare and submit monthly monitoring reports on ESHS performance in accordance with the metrics specified in the respective bidding documents, contracts
 - Notify the World Bank within forty-eight (48) hours of becoming aware of any incident or accident related to the Project
 - Prepare and implement an OHS Management Plan to assess and manage the OHS risks and impacts of the Project as part of their C-ESMPs
 - Establish and operate a grievance mechanism for Project workers, as described in the LMP
 - Conduct an assessment of the electronic waste generation during project implementation, and if required, an Electronic Waste Management Plan
 - Prepare and implement a Traffic and Road Safety Management Plan (TRSMP) as part of their C-ESMPs
 - Prepare the Pollution Prevention Plan as part of the C-ESMP prior to the commencement of civil works
 - Prepare and implement a SEA/SH Action Plan, to assess and manage risks of SEA/SH.
 - Assess the security risks associated with Project implementation, including the risks of engaging security personnel to safeguard project workers, sites, assets, and activities and if required, prepare a Security Management Plan
 - Implement the chance find procedures, as part of the ESMP of the Project
 -
- Construction Supervision Consultant
- directly responsible for contract administration and day-to-day project supervision including environmental and social management.

Contractors/Sub-Contractors

- The Construction Supervision Consultant will consist of an environmental and social unit that will advise the MoCTI PCU on ESMP implementation and monitor the work of the contractors in the field.
- Engage environment and social specialists to ensure proper implementation of ESMP provisions.
- Undertake regular monitoring of the contractor's environmental performance, as scheduled in the ESMP.
- Conduct periodical environmental audits.
- Prior to construction, review and approve C-ESMPs/method statements prepared by the contractors.
- Supervise site environmental management system of the contractors and provide corrective instructions.
- Monitor the implementation of the C-ESMP and review the environmental management and monitoring reports prepared by the contractor.
- Review and report on C-ESMP implementation by the contractor.
- prepare quarterly progress reports
- Comply with the Project's environmental and social mitigation and management measures as specified in ESMPs, ESCOPs, and contract documents, as well as national and local legislation.
- Take all necessary measures to protect the health and safety of workers and community members, and avoid, minimize, or mitigate any environmental harm resulting from project activities.
- Evaluate and review the ESMP developed from the main ESIA process and internalize the provisions for implementation based on the realities of the project.
- Customize the project ESMP and generate a Contractor Environmental and Social Management Plan (C-ESMP), and other method statements and management plans according to requirements of ESMP and get them approved by Construction Supervision Consultant.
- Procure necessary equipment for environment measurements or engage an appropriate expert personnel member for the activity in specific environment quality aspects including air quality, noise, water, and soil quality,
- Recruit qualified environmental and social safety officers to ensure compliance with environmental and social contractual obligations and proper implementation of CESMP.
- Provide sufficient funding and human resources for proper implementation of CESMP; and
- Prepare monthly reports related to environmental and social management and monitoring for review and verification by the Construction Supervision Consultant.

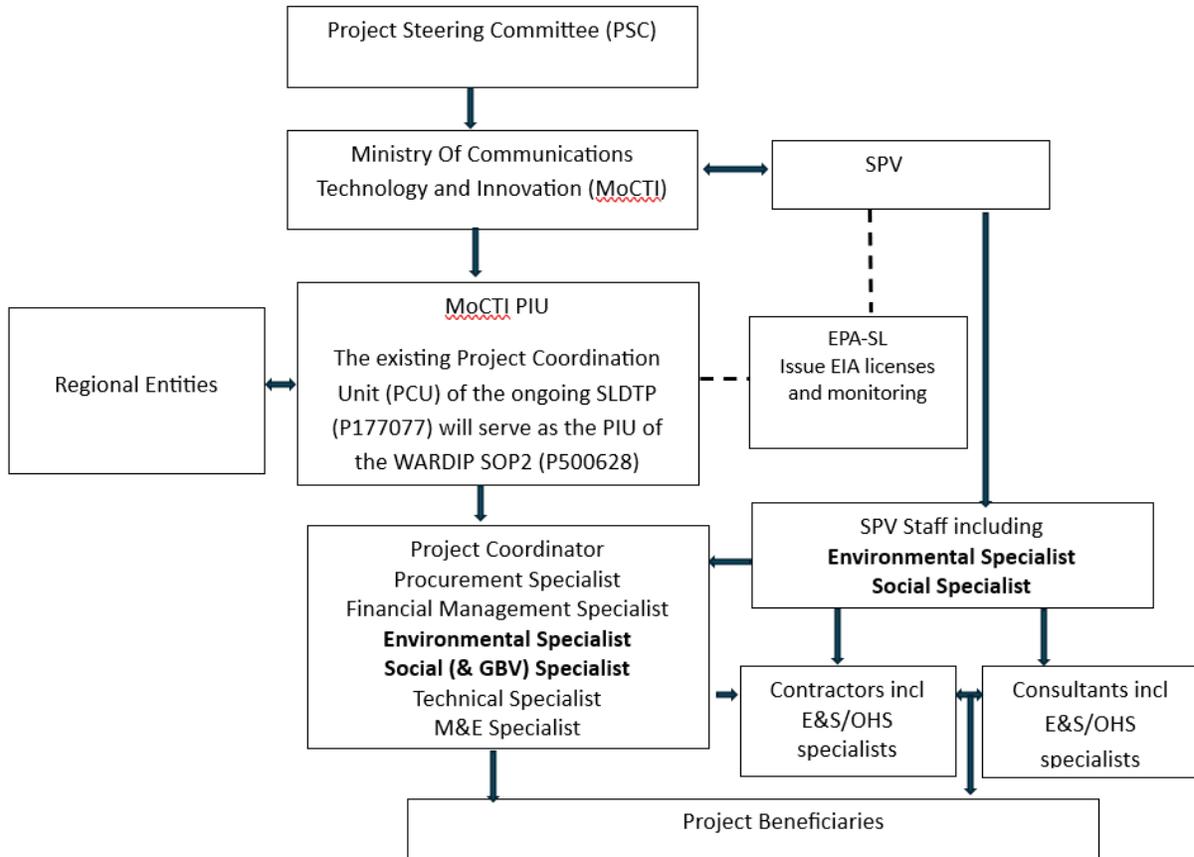


Figure 17: Schematic representation of the institutional/implementation arrangements of the ESMF/ESMP/RP/LMP

7.9 Proposed Training and Capacity Building

7.9.1 Capacity Assessment

The Sierra Leone Digital Transformation Project (SLDTP, P177077) is a World Bank-financed operation with the objective to expand access to broadband internet, enhance digital skills, and improve government capacity to deliver public services digitally. The project is implemented by the Ministry of Communications, Technology, and Innovation (MoCTI), with a dedicated Project Coordination Unit (PCU) responsible for overall project management, including procurement, financial management, monitoring and evaluation, and environmental and social (E&S) safeguards management. The PCU has been operational since project effectiveness in December 2022 and has managed a range of activities under the World Bank’s Environmental and Social Framework (ESF), including the preparation, disclosure, and implementation of key E&S instruments.

The PCU’s experience in preparing, implementing, and monitoring ESF instruments under World Bank-financed digital projects ensures readiness to manage similar requirements for WARDIP SOP2. The PCU has established procedures for E&S screening, stakeholder engagement, GRM, and compliance monitoring, which can be readily adapted to the regional context. The PCU’s engagement in capacity building and adaptive management demonstrates a commitment to continuous improvement in ESF implementation.

Institutions involved have some E&S risk management experience from previous projects but require systematic ESF institutional capacity assessment, including gender aspects and proportionate capacity building plans (human resource, soft skills training, and logistics). The MoCTI PCU, SPV and implementing partners shall establish an E&S risk management in accordance with the ESF.

Successful implementation of the Project will depend, among others, on the effective implementation of the environmental and social risk management measures outlined in this ESMF. Training and capacity building will be necessary for the key stakeholders in order to ensure effective implementation of the ESMF, LMP, RF, SEP, and other environmental and social documents. An initial training approach is outlined in the table below. To the extent possible, training on environmental and social risk management will be integrated into the project cycle and operational procedures. Table 16 presents the proposed training and capacity building approach with an estimated budget of One Hundred and Fifteen thousand United States Dollars only **US\$ 115,000**.

Table 16: Proposed Training and Capacity Building Approach

Training Required	Who to train	Responsible Party	Budget (US\$)
World Bank ESF and ESSs certification	MoCTI PCU	Ghana ESF Center of Excellence	10,000
Deep dive training on resettlement and ESF	MoCTI PCU	Ghana ESF Center of Excellence	10,000
OHS Management	MoCTI PCU	Ghana ESF Center of Excellence	10,000
Environmental and Social Risk Management Instruments disclosure	MoCTI PCU	MoCTI PCU	5,000
Training themes <ul style="list-style-type: none"> • Project E&S Screening • GBV/SEA/SH awareness, monitoring, and reporting • OHS Management/ESMP Training for Contractors • Waste Management/Hazardous material management • Emergency Preparedness and Response • Security Risk and Awareness • Biodiversity Management • Chance finds procedures • Incident investigation and reporting • E&S monitoring and reporting • Grievance redress mechanism • Stakeholder engagement and project communications • Deep dive training on resettlement and ESF. • SEA/SH Sensitization, monitoring and reporting 	MoCTI PCU	MoCTI PCU supported by consultants as necessary for one year	20,000
	MoCTI PCU /Contractors/sub-contractors	Refresher year 2	10,000
		Refresher year 3	10,000
		Refresher year 4	10,000
		Refresher year 5	10,000
Environmental, Social, resettlement and OHS audit (midterm of the project and end of the project)	MoCTI PCU 108	MoCTI PCU	10,000

Training Required	Who to train	Responsible Party	Budget (US\$)
Cable route mapping, marine habitat surveys, cable laying techniques, landing station design and O&M	MoCTI PCU	MoCTI PCU supported by consultants as necessary	10,000
Climate risks and disaster preparedness	MoCTI PCU	MoCTI PCU supported by consultants as necessary	10,000
Total			115,000

N.B. Project resources should be available to train E&S staff. Budget will not include salaries of staff.

7.10 Estimated Budget

It is estimated that a total amount of Five Hundred Sixty-One Thousand Seven Hundred Fifty United States Dollars (**US\$ 561,750**) will be required to implement activities identified in the ESMF. The project will allocate budget for the preparation of instruments, such as ESIA, ESMP, RP and other site-specific instruments as required. The following table lists estimated cost items for the implementation for the ESMF, which have been included in the overall project budget.

Table 17: ESMF Implementation Budget

No	Activity	Indicative Cost (US\$)
1	ESMF Disclosure	10,000
2	Hiring a dedicated Environmental Specialist and a dedicated Social and Gender-Based Violence (GBV) Specialist in the MoCTI PCU (full time) per year	TBD
3	Capacity Building and Training Program (presented in table 16)	115,000
4	Environmental Screening and Preparation of ESIAs/, ESMPs (incl. BMP- marine and coastal biodiversity, fisheries and climate change impacts), other site-specific plans and disclosure	150,000
5	Resettlement Plans (RPs), RP implementation other site-specific plans and disclosure	70,000
6	Preparation and implementation of the GBV/SEA/SH Prevention and Response Action Plan	40,000
7	Cost of obtaining clearances or permits	30,000
8	Environmental and social safeguards monitoring and reporting	40,000
9	Operating cost of the GRM	40,000
10	Consultation of stakeholders	20,000
11	Environmental and Social Audit and disclosure	20,000
	Contingency (5%)	26,750
	TOTAL	,561,750

8. Stakeholder Engagement, Disclosure, and Consultations

A separate Stakeholder Engagement Plan (SEP) has been prepared for the Project, based on the World Bank’s Environmental and Social Standard 10 (ESS 10) on Stakeholder Engagement. The SEP can be found on the MoCTI website and WB external website.

This ESMF, with annexes on the RF and LMP as well as the SEP and the Environmental and Social Commitment Plan (ESCP) that have been prepared for this project, have been disclosed in draft form stakeholder consultations on the stated websites. Key feedback, if any, on the disclosed ESMF is listed here [summary of feedback].

8.1. Stakeholder Consultation Undertaken During Project Preparation and E&S Instruments

Stakeholder consultations were undertaken for WARDIP 2 for Sierra Leone. The subsections below capture summarized findings from these stakeholder engagement activities. It had the following objectives: (i) Consult key people, the MoCTI PCU, as well as other key partners and stakeholders to inform about the preparation of the proposed program; (ii) Discuss the preliminary content of the WARDIP SOP2, solicit stakeholder inputs and fill requisite gaps; (iii) Present the program preparation timeline.

8.1.1 Pre- Appraisal Meeting

As part of the Project preparation, the Task Team has conducted a pre-appraisal meeting for WARDIP-2 Sierra Leone on October 14, 2025. The meeting involved the MoCTI PCU and officials of MoCTI. It had the following objectives: to ensure key aspects of the project design are covered including discussions on the Environmental and Social aspects of the project and to go over the key documents, including PAD, and ESCP, components and activities relevant to Sierra Leone.

8.1.2 Key feedback from Stakeholder Consultation during E&S Instruments Preparation

Stakeholder engagements during the E&S instruments preparation were held between October 13-17, 2025, co-led by the MoCTI PCU and the World Bank and includes the relevant government institutions associated with the project. The consultations had the following objectives: (i) consult key relevant institutions, the MoCTI, and existing PCU of SLDTP, as well as other stakeholders to inform about the preparation of the proposed project; (ii) discuss the preliminary content of the WARDIP SOP2, solicit stakeholder inputs and fill requisite gaps (Table 18. Feedback from Stakeholder Consultation).

Table 18: Feedback from Stakeholder Consultation

No	Stakeholder	Insights and recommendations
1	MoCTI- Chief Director, Project Coordinator and E&S specialist (PMU SLDTP/MoCTI PCU)	<ul style="list-style-type: none"> There is an existing GRM to address concerns and feedback from all stakeholders under the SLDTP. It is essential that a multi-uptake channel GRM is adapted for the needs of the project. Local fishing communities live within shallow waters of the Sussex community. The SLRA provide permits to allow the ROW for burial of the cable on the terrestrial segment. To monitor vessels at sea, Automatic Identification System (AIS) are equipped on vessels for maritime traffic management, operations and monitoring of vessels especially during project construction and operations

No	Stakeholder	Insights and recommendations
2	MoCTI- Director, Communications	<ul style="list-style-type: none"> • Sussex, for the proposed CLS, is a fishing community. • A cyber security regulation in Sierra Leone is required which should be based on the Cyber Security and Crime Act, 2021 which establishes the legal and institutional framework to prevent, detect, investigate, and prosecute cybercrime, strengthen national cyber resilience, and protect critical information infrastructure across key sectors including a legal basis to identify and designate Critical Information Infrastructure (CII) and to protect it against cyber risks. • More emphasis should be put on big fishing vessels that may be along the sub marine route including artisanal fishing activities • The project might lead to generation of electronic waste. SLDTP is currently undertaking an e-waste survey which would lead to the preparation of an e-waste management policy framework for Sierra Leone.
3	Sierra Leone Maritime Administration (SLMARA)	<ul style="list-style-type: none"> • The SLMARA is the national authority established to regulate and develop shipping and maritime transport (coastal, inland, and sea), ensures safety of navigation, protecting the marine environment within 12-24 nautical miles • The agency was involved in managing an incident that occurred in 2023 that involved a sunken vessel near a undersea cable. • A joint Maritime Committee (JMC) is made up of all maritime institutions and include: SLMA, Port Authority, Fisheries, The Navy, Marine Police, Office of the National Security, Immigration, the EPA, including observers from the British High Commission and the American Embassy. • Some exemptions are provided of vessels on Government projects • The SLMARA issues permit vessels to operate. • There is a need to improve surveillance of fishing vessels including safety and incidents of theft at sea.
4	The Sierra Leone Ports and Harbors Authority	<ul style="list-style-type: none"> • The Deputy Harbor Master stated that the agency investigates shipping vessels and all ports and maritime activities in Sierra Leone noting that once the coordinates of the second submarine cable and routes are established by the project, the agency ensures that vessels are managed and operated adequately to avoid obstruction and indiscriminate dropping of anchors by vessels of which divers go into the seabed to examine • A major challenge is that most fishing vessels drop their anchors at non-designated positions at sea which may cause damage to the cable • Adequate consultation and notifications/local announcements are required in Sussex community in collaboration with community chiefs and fishing communities to ensure that local fishing canoes do not deviate into the proposed project corridor/ROW

No	Stakeholder	Insights and recommendations
5	Environmental Protection Authority (EPA)	<ul style="list-style-type: none"> The EPA noted that the first submarine cable was conducted under the EIA process prescribed by the 2008/201 Act, while the proposed second submarine cable is subject to the 2022 EIA Act. There are fee requirements for obtaining EIA permits and subsequent monitoring of the works. On project-related land acquisition, the National Resettlement Secretariat (NRS) handles coordination and oversight of development-induced resettlement policy implementation within the Ministry of Economic Planning and Development. Impacts to consider during the ESIA preparation should include breeding grounds for marine species along the project corridor, seabed disturbance. Climate impacts on the proposed investments need to be climate proofed in terms of the materials used for the fibre coating, impacts from ocean currents, temperature gradients and considerations about the eroding shoreline Social aspects should assess impacts on fishing communities because Sussex is a large fishing community. Adequate stakeholder consultations in Sussex community should be considered during the E&S instrument preparation stage
6.	Sierra Leone ministry of fisheries and marine resources (MFMR)	<ul style="list-style-type: none"> The MFMR is a member of the EPA board and ensures that due diligence in the Fisheries Act and Regulations is carried out effectively. The Ministry regulates the fishing activities in Sierra Leone and issues licenses to industrial and artisanal fishers and the along the peninsula. The proposed cable route may interfere with breeding grounds and spawning areas of the marine environment requiring a Fisheries Impact Study.
7	CBOs/NGOs	<p>Following consultations with CSOs and NGOs, during the preparation of the SEP, some key points were raised.</p> <ul style="list-style-type: none"> Participants emphasized the need to simplify technical information so that it is accessible and understandable to the general public, recognizing the crucial role that media can play in promoting awareness of the project's benefits. They suggested establishing clear and effective channels for community feedback to ensure that concerns and suggestions from local residents are heard and addressed. Additionally, inquiry was made about the measures being taken to address community and environmental considerations at the project's landing site, highlighting the importance of responsible and inclusive project implementation.
	<p>Affected Communities & Local Stakeholders Member of Parliament (MP), Chairmen, Women's Leader, Fisher Men, Harbour Masters, Teachers, Fishmongers, Vulnerable Groups, Community Leaders, Religious Leaders,</p>	<p>Following consultations with affected communities and local stakeholders during the preparation of the SEP, several key points were raised.</p> <ul style="list-style-type: none"> Community members expressed a strong demand for tangible benefits from the project, including the expectation of lower utility tariffs, renovation of local schools and community centers, and the provision of vocational training opportunities for youth. There were concerns regarding the potential impact on livelihoods, particularly those related to fishing, trading, and access to the beach for both economic and recreational activities such as swimming.

No	Stakeholder	Insights and recommendations
	Youth, Social Workers, Petty Traders	<ul style="list-style-type: none"> • Issues surrounding land and ownership were highlighted, with calls for greater transparency in community decision-making processes to ensure fair and inclusive outcomes. • Stakeholders requested ongoing engagement and the active inclusion of all sub-communities specifically Sussex, Sherbro Town, Kingtom, and Baw Baw throughout the project lifecycle. • The security of the cable area was also discussed, with community members emphasizing their willingness to play a role in safeguarding these assets. • There was a suggestion to establish a steering committee comprising representatives from all communities to facilitate coordination, oversight, and equitable participation in project-related decisions.

8.2 Disclosure

The World Bank ESF / ESS require continuous engagements with stakeholders during the preparatory and implementation stages of all projects. After incorporating stakeholders’ views in all environmental reports for projects, they are made available to project affected groups, local NGOs, and the public at large. Public disclosure of ESIA documents or environmental reports is also a requirement of the Sierra Leone EIA procedures.

The ESMF was prepared in conjunction with the PCU within the Ministry of Communications, Technology, and Innovation (MoCTI), MDAs, CBOs/NGOs, and other relevant stakeholders. Stakeholder consultations have been undertaken in the preparation of this project as well as the ESMF. Upon approval of the draft final ESMF report by the proponent and World Bank, the report will be disclosed and made available to the public, including all stakeholder parties. The MoCTI PCU and its agencies will disclose the ESMF on their website, and the link shared with the Bank. EPASL requires the ESIA/ESMP to be prepared for specific project activities to be EPASL requires the ESIA/ESMP to be prepared for specific project activities to be disclosed across society, at the local, district and national levels for transparency and accountability, to inform decision on the EIA license.

ANNEX 1: RESETTLEMENT FRAMEWORK (RF)

1. OBJECTIVES AND KEY PRINCIPLES OF RESETTLEMENT PLANNING

MoCTI as the main project proponent and other relevant implementing entities should take all feasible measures to avoid or minimize adverse impacts from land acquisition and restrictions on land use associated with the WARDIP SOP2 in Sierra Leone. The fundamental objective of ESS5 is to follow the mitigation hierarchy and -- ensure that, if physical or economic displacement cannot be avoided, displaced persons are compensated at the replacement cost for land and other assets, and otherwise assisted as necessary to improve or at least restore their incomes and living standards. Other ESS5 objectives include to:

- Avoid forced eviction
- Improve living conditions of poor or vulnerable persons who are physically displaced, through provision of adequate housing, access to services and facilities, and security of tenure
- Conceive and execute resettlement activities as sustainable development programs, providing sufficient investment resources to enable displaced persons to benefit directly from the project, as the nature of the project warrants
- Ensure that resettlement activities are planned and implemented with appropriate disclosure of information, meaningful consultation, and the informed participation of those affected.

PAPs have access to the GM.

ESS5 also establishes key principles to be followed in resettlement planning and implementation. These include:

- (a) All displaced persons are entitled to compensation for lost assets, or to alternative but equivalent forms of resettlement and livelihood assistance in lieu of compensation; lack of legal rights to the assets lost will not prevent displaced persons from entitlement to such compensation or alternative forms of assistance. Those with legal or recognized rights are entitled to compensation for land; those without such rights are eligible for assistance and compensation for non-land assets.
- (b) Compensation rates refer to amounts to be paid in full to the eligible owner(s) or user(s) of the lost asset, without depreciation or deduction for fees, taxes, or any other purpose. Compensation has to be at current replacement rate.
- (c) Compensation for land, structures, unharvested crops, and all other fixed assets should be paid prior to the time of impact or dispossession.
- (d) When cultivated land is to be taken for project purposes, the MoCTI PCU and SPV (in partnership with other implementing agencies of the project) seeks to provide replacement land of equivalent productive value if that is the preference of the displaced persons.
- (e) Community services and facilities will be repaired or restored if affected by the project.
- (f) Displaced persons should be consulted during preparation of the RP, so that their preferences are solicited and considered.
- (g) The RP (in draft and final versions) is publicly disclosed in a manner accessible to displaced persons.
- (h) A grievance mechanism by which displaced persons can pursue grievances will be established and operated in a responsive manner.

- (i) Negotiated settlement processes are acceptable as an alternative for legal expropriation if appropriately implemented and documented.⁷
- (j) Land donation is acceptable only if conducted in a wholly voluntary manner and appropriately documented.⁸
- (k) MoCTI PCU and SPV (in partnership with other relevant implementing agencies of the project) bears official responsibility for meeting all costs associated with obtaining project sites, including compensation and other considerations due to displaced persons. The RP includes an estimated budget for all costs, including contingencies for price inflation and unforeseen costs, as well as organizational arrangements for meeting financial contingencies.
- (l) Monitoring arrangements will be specified in the RP, to assess the status and effectiveness of RP implementation.

2. METHOD FOR RF PREPARATION

The RF used both primary and secondary data collection methods. The key target population for the RF comprised of groups and individuals who may potentially be affected by the proposed components activities of WARDIP SOP2 in Sierra Leone including the vulnerable groups who reside in project intervention areas.

Relevant documents and studies reviewed such as the PAD, A-ESRS, ESCP, SEP prepared for the project. Applicable Sierra Leonean land acquisition and compensation related laws, policies, proclamations and regulations and WB ESF. Potential project target Cable Landing Stations were visited in Sussex community and a range of relevant stakeholder consultations including community groups in various consultation sessions were conducted to obtain opinions, feedback, concerns in relation to the project's E&S risks and impacts and in particular to land acquisition, restrictions on land use and involuntary resettlement associated to the project.

⁷ Appropriate principles for negotiated settlement transactions include (a) intended project sites are screened to identify competing claims to ownership or use, or other encumbrances that would impede two-party negotiations; (b) if the site is collectively or communally owned or used, the negotiation process includes those individuals or households who directly occupy or use it; (c) prior to negotiations, owners or users are informed by project authorities of their intent to obtain relevant land (and other assets) for project use; (d) owners or users are informed of their rights and options to pursue legal remedies or other actions, and sign a declaration indicating willingness to negotiate; (e) at the onset of negotiations, project negotiators present the owner or user with a proposed package of compensation or other beneficial considerations, along with an explanation as to the basis of this initial offer; (f) owners or users are informed that they may make counterproposals as they may see fit; (g) negotiations are conducted without resort to coercion or intimidation in any form; (h) an agreement establishing payment amounts or other agreed considerations is written, signed, and recorded; (i) payment of compensation and provision of any other agreed considerations is completed prior to taking possession for project use; and (j) owners or users retain the right of access to the grievance mechanism if they have complaints regarding any aspect of the negotiated settlement process.

⁸ Any land or asset donation for project use will be consistent with these principles: (a) the potential donor is informed that refusal is an option, and that right of refusal is specified in the donation document the donor will sign; (b) donation occurs without coercion, manipulation, or other pressure on the part of public or traditional authorities; (c) the donor may negotiate for some form of payment, partial use rights, or alternative benefits as a condition for donation; (d) donation of land is unacceptable unless provision is made to mitigate any significant impacts on incomes or living standards of those involved; (e) donation of land cannot occur if it were to necessitate any household relocation; (f) for community or collective land, donation can only occur with the consent of individuals directly using or occupying the land; (g) the land to be donated is free of encumbrances or encroachment by others who may be adversely affected; (h) any donated land that is not used for its agreed purpose by the project is returned to the donor in a timely manner; and (i) each instance of land donation is documented, including a statement identifying the land or assets donated and terms of donation, which is signed by each owner or user. Persons donating land or assets for project use may use the project grievance mechanism to raise complaints regarding any aspect of the donation process.

3. LEGAL AND REGULATORY FRAMEWORK

This section summarizes the relevant legal requirements and institutional processes that underpin land acquisition and resettlement of PAPs in Sierra Leone and the requirements of the World Bank and are presented in the next sub-sections. Details are also captured in Chapter 3 of this ESMF.

3.1. Constitutional, Legislative and Regulatory Provisions

Several instruments in the form of Acts, policies and regulations, including the 1991 constitution govern land acquisition and resettlement relation to developmental projects in Sierra Leone.

3.1.1. The Constitution of Sierra Leone

The 1991 constitution makes provision for the government to pursue social protection and prosperity for its people through the harnessing and management of all natural resources and protects individuals from deprivation of interest or right over property of any kind. It secures and guarantees private ownership and enjoyment of property. Section 21 of the constitution makes provision for compulsory acquisition of private properties under the condition that it promotes the public welfare of the citizens of Sierra Leone. Any acquisition of property in line with section 21 must be accompanied by prompt payment of adequate compensation, as well as providing the individual(s) access to the court or other impartial and independent authority for the determination of the entitled by person interest or right, and the amount of any compensation to which s/he is entitled and for the purpose of obtaining prompt payment of that compensation. However, the constitution does not make provisions for the development of a resettlement planning instrument/s.

Chapter III, Section 15, states that every person in Sierra Leone is entitled to the fundamental human rights and freedoms of the individual, that is to say, has the right, whatever his race, tribe, place of origin, political opinion, colour, creed or sex, but subject to respect for the rights and freedoms of others and for the public interest, to each and all of the following— a) life, liberty, security of person, the enjoyment of property, and the protection of law; b) freedom of conscience, of expression and of assembly and association; c) respect for private and family life, and d) protection from deprivation of property without compensation;

Except with his own consent, no person shall be hindered in the enjoyment of his freedom of expression, and for the purpose of this section the said freedom includes the freedom to hold opinions and to receive and impart ideas and information without interference, freedom from interference with his correspondence, freedom to own, establish and operate any medium for the dissemination of information, ideas and opinions, and academic freedom in institutions of learning.

Relevance to the Project: The Constitution is the document that regulates the actions and inactions of all residents in Sierra Leone; therefore, every activity undertaken in Sierra Leone is regulated by the Constitution, including the right to have and the protection of an ideal and comfortable housing and working space/ livelihood resources, etc.

3.1.2. Land Tenure and Ownership

Land administration in Sierra Leone is governed by a dual system of law, dispersed in about twenty statutes and regulations. In the Western Area of Sierra Leone, land tenure is governed by Property Statutes. Land is either State (publicly) owned or privately owned. The right of the state to public land is inalienable and indefeasible. Rights of occupation over public land may be granted under the warrant. The state has the power, conferred by the Unoccupied Lands Act, cap 117, to take possession of unoccupied land. In the provinces, customary law co-exists with statute. The recognition of the force of customary law in the provinces is established by section 76 (1) of the Courts Act 1965. Through customary law, ownership of

land is vested in the chiefdoms and communities, it can never be owned freehold. Land always belongs to the communities under the different forms of tenure under customary law. This principle is established by the Chiefdom Councils Act as well as by Section 28 (d) of the Local Government Act 2004.

Relevance to the Project: the land tenure determines and distinguishes between the dual systems of land ownership in the provinces; statutory law in the Western Area (including Freetown) and customary law in the provinces. The Cable Landing Stations at Sussex's in the Western Area Rural District is proposed on parcels of land that are situated Freetown. The cable landing stations at Sussex are proposed to be built on privately owned land. Establishing landownership is very relevant to the project. This ESMF includes procedures for screening subprojects to identify risks related to land acquisition and physical and economic displacement.

3.1.3 National Development Induced Resettlement Act 2023

This is an act to introduce uniform principles to guide the planning, implementation and monitoring of development induced resettlement activities and to provide for other related matters.

Part I defines an Affected Person, who as a result of a qualifying project or activity loses or is likely to lose, either in full or in part, permanently or temporarily, the right to own, use, or otherwise benefit from all or part of physical and non-physical assets, including, home, community, land resources, important cultural sites, commercial properties, tenancy, income-earning opportunities and social or cultural networks and activities.

Part IV – Section 12 (a) states that Resettlement shall be avoided at all costs and where it is unavoidable, it should be undertaken in a manner that will cause minimal disruption of the affected persons. Section 12 (f) of the Act requires resettlement to be carried out only after affected persons have been provided with full and fair compensation for incurring tangible and intangible losses. Section 13, Sub-Section XIV addresses resettlement impacts on vulnerable groups.

Part V – Licenses Resettlement Impact Assessment and Management Plan: Section 12 (K) requires that resettlement will only be carried out after the development and approval of a risk appropriate resettlement management plan. Section 14) requires that any person should not undertake a project that will lead to resettlement unless he/she holds a license issued under the Development Induced-Resettlement Act.

Part VI Section 13 Subsection (XXVIII) requires that a comprehensive framework for redressing grievances and resolving disputes that may arise in respect of the planning, implementation and monitoring of resettlement activities is established before the implementation of resettlement activities. Section 30 requires the proponent of a development project to bear all the responsibilities relating to the planning, implementation and monitoring of resettlement and upgrade activities approved under the resettlement management plan. An authorized officer should monitor and inspect all licensed projects to assess their impact on affected persons and to ascertain compliance with the Act.

Part VII (Compensation Framework), Section 34 Subsection 1 stipulates that any person affected by a development project shall have the right to payment of full compensation.

Part IV, Section 12 (e) stipulates disclosure of information, regular consultation and informed participation as part of resettlement planning and implementation.

Relevance to the Project: this is the overarching regulation that deals with the procedures of executing resettlement due to development projects. The Act requires the conduct of proper assessment of potential effects of resettlement on affected persons and determines the ideal compensation framework. The Act clearly requires compensation to be paid prior to the commencement of the development. Due to the existing activities in the Sussex area, a coastal community, such as fishing, or other land uses, the WARDIP 2 in Sierra Leone may induce resettlement of fishers, traders, agriculture activities, business activities etc. which should be done in compliance with the Act, hence the relevance of the Act to the project.

3.1.4 Right to Access Information Act 2023

Part II Section 11 subsection 1(c) of the Act stipulates the following: Before initiating any project or formulating any policy, scheme, program or law, publish or communicate to the public in general or to the persons likely to be affected by it in particular, the facts available to it or to which it has reasonable access which in its opinion should be known to them in the best interests of natural justice and promotion of democratic principles; 1 (d) - unless there are good reasons to the contrary, allow members of the public to attend its meetings at which decisions affecting them are made, and give adequate notice of the meetings.

Relevance to the Project: the Act requires consultation with all relevant stakeholders prior, during and after any investment or activity that will affect them. For WARDIP 2 in Sierra Leone, the affected persons due to the proposed project activities must be engaged in every step of the process including the relocation activities. This Act is thus very relevant to the project.

3.1.5 National Land Commission Act 2022

Being an Act to provide for the establishment of the National Land Commission, the District Land Commission and other land administrative bodies to secure effective and holistic land administration and to provide for other related matters. Section 59 subsection 2 requires the establishment of an inventory of state, private and community land across the country.

Part XI, Section 77: Subsection (1): The Commission shall establish a Grievance Redress Mechanism whereby a person can challenge decisions of the Commission in respect of land for which he/she has a right or claim. Subsection (2): any grievance redress mechanism established by the Commission shall be effective, accessible and affordable to all, and provide prompt resolution of an enforcement of outcomes of disputes over tenure rights. Subsection (3): Where a person is deprived of a land tenure right by the Government for a public purpose, compensation shall be provided to that person irrespective of the resolution provided by any grievance redress mechanism established by the Commission.

Section 78, Subsection (1): The Commission shall set up within each chiefdom Land Committee, a subcommittee to be known as the Land Adjudication Tribunal.

Relevance to the Project: the Land Commission Act requires that all pieces of land in every corner of Sierra Leone should be registered under the Land Commission that was established by the Act; the Commission will establish a national land register which may include all the relevant information of any parcel of land at local and national level. This is applicable to the proposed project locations in Sussex area.

3.1.6 Customary Land Right Act 2022

Being an Act to provide for the establishment and protection of customary land rights, the elimination of discrimination under customary law, and the management and administration of land subject to customary law and to provide for other related matters. Part III Section 5 (1) and (2) of the act guarantee

equal right to own, hold, use, inherit, succeed or deal with land under customary law and nullifies any law that excludes, inhibits women from owning, holding, using or transferring and inheriting land.

Relevance to the Project: The potential site for the terrestrial segment of the project in Sussex community may be possibly acquired for the construction of the submarine cable landing during the construction period. Land in the Western Area (including Sussex) is governed by statutory law (General Law/Common Law). Here, land can be privately owned, and transactions are formalized through registration and deeds. The Act is not applicable to the Western Area, including Sussex, where cable landing stations are located. Instead, statutory law governs land tenure and transactions in this region.

3.1.7 The Town and Country Planning Act 1948

This Act defines the rules for the definition of Planning Areas and Schemes. Cap 81, Part IV, no. 25 gives rights to any person whose property is seriously affected by a scheme or by the execution of any work under a scheme to be compensated by the amount by which his property is decreased in value under the condition that he makes a claim within a certain limited time (to be clarified based on engagement with Government for the RP). If the person is dissatisfied with the compensation received, he is allowed to appeal to the Supreme Court. Final judgment is subject to appeals applicable to the Supreme Court.

Relevance to the Project: the Act regulates planning, which is relevant to the project, because it ensures that construction of the submarine cable landing, should be done within planned areas. Therefore, the requirements of the Act are applicable to the selection of the location of project components activities.

3.1.8 The Local Government Act, 2022

Being an Act to consolidate with amendments, the law on local government, and to provide for the decentralization and devolution of functions, powers and services to local councils and for other matters connected therewith.

PART V – Section 20. (1) A local council shall be the highest political authority in the locality and shall have legislative and executive powers to be exercised in accordance with this Act or any other enactment, and shall be responsible, generally for promoting the development of the locality and the welfare of the people in the locality with the resources at its disposal and with such resources and capacity as it can mobilize from the central government and its agencies, national and international organizations, and the private sector.

(2) Without prejudice to the generality of subsection (1), it shall be the function of a local council to (a) mobilize the human and material resources necessary for the overall development and welfare of the people of the locality; (b) promote and support productive activity and social development in the locality; (c) initiate and maintain programs for the development of basic infrastructure and provide works and services in the locality.

PART XII Section 90. (1) A local council may make byelaws not inconsistent with the Constitution or this Act or any other enactment for the purpose of any function conferred on it by or under this Act or any other enactment.

Relevance to the Project: the Act gives the authority to the Local Councils to plan and undertake development projects in their jurisdiction.

3.1.9 The World Bank’s Environmental and Social Framework

The World Bank’s Environmental and Social Standard on Land Acquisition, Restrictions on Land Use and Involuntary Resettlement Policy (ESS 5) applies to permanent or temporary physical and economic displacement resulting from land acquisition or restrictions on land use undertaken or imposed in connection with the project’s implementation.

The World Bank’s Land Acquisition, Restrictions on Land Use and Involuntary Resettlement requirements as embedded in ESS5 outline the conditions under which the World Bank will fund a project if it displaces people or affects their social and economic wellbeing. The objective of the Bank’s Resettlement Policy is to ensure that the population displaced by a project receives benefits from it. According to ESS 5, the resettlement plan should include measures to ensure that PAPs are:

- Informed about their options and rights pertaining to resettlement
 - Consulted on, offered choices among, and provided with technically and economically feasible resettlement alternatives
 - Provided prompt and effective compensation at full replacement cost for losses
 - Aided (such as moving allowances) during relocation; and
 - Provided with residential housing, or housing sites, (in the context of this case, market sites) for which a combination of productive potential, location advantages and other factors is at least equivalent to the advantages of old sites.
- Have access to GM

3.2 Comparison of National Legislation and WB ESS5

Sierra Leone Laws only provide compensation for land and affected assets that is legally owned by PAPs. ESS5 applies for the compensation of assets to be affected by a project/program not only to those who own or have formal legal rights to the land from which they are being displaced, but also to those who as of a cut-off date occupy or utilize the land informally or without clear legal rights to do so. It is important to note that because of State ownership of lands in Sierra Leone, land use is only possible with the permission of local authorities (as given attorney by the President) on the basis of a lease or on other terms. Accordingly, land use issues are fully covered by land legislation and are governed by provisions of customary law/traditional practices and lease. According to Sierra Leone laws, those who use or occupy land outside the two lines of official permission will not be entitled to legal compensation. The State will have the right to seize the land from those “illegal land users”. Persons who take up the residence in the area after the cut-off date are not entitled to compensation or any other form of resettlement assistance.

World Bank in its ESS 5, highlights that particular attention should be paid to the needs of the most vulnerable groups among those displaced, especially those below the poverty line, the landless, the elderly, women and children, ethnic minorities, and also other categories of displaced persons whose interests may not be protected by national legislation with regard to the compensations for the land plots subject to withdrawal.

The most stringent must be materially consistent with ESS5. In case of discrepancy/conflict between the national law and ESS5, the latter will prevail.

It is anticipated that MoCTI PCU, SPV and other relevant implementing entities will commit to undertaking all necessary actions to ensure the full and effective implementation of Resettlement Plans (RPs) prepared in accordance with this Resettlement Framework (RF) once specific intervention areas are determined, as well as any additional measures required to achieve compliance with all relevant provisions of ESS5.

3.3 Sierra Leone Land Ownership

Land can be owned from the following categories in Sierra Leone: Private land, state land, communal land, and family land. State land and private land ownership operate in the Western Area Rural District. In the provinces, communal and family land ownership is prevalent. State or public lands are mostly unoccupied land, and land compulsorily acquired by the Government. Private land is land in which an individual has a freehold interest. Communal land referred to as chieftdom or community land is held in trust by the chief for the community and in the case of family land the main interest is vested in the family group with a common ancestry. In the provinces private freehold is gaining ground in the urban centres. Most chieftaincy land is held by extended families who have rights of access, use, and transfer by lease. Detailed socio-economic data for the project sites will be collected and presented during the RP preparation stage.

4 ASPECTS OF THE PROJECT ENTAILING RF/ RP REQUIREMENTS

The scope of land take for different proposed project activities is not known at this stage, hence this RF is prepared.

Based on the project subcomponent activities under subcomponent 2.2 outlined in the ESMF, it is anticipated to have generic impacts on assets including loss of and access to land, fishing activities, structures and livelihoods disturbance and access restriction on communities and persons.

As per ESS5, project-related land acquisition or restrictions on land use may cause physical displacement (relocation, loss of residential land, or loss of shelter), economic displacement (loss of land, assets, or access to natural and livelihood resources leading to loss of income sources or other means of livelihood), or both mainly due to the construction of the cable landing station and associated infrastructure which consists of the link between the Beach Manhole (BMH) and the Cable Landing Station (CLS) in Sussex community.

This Section will discuss the proposed project components that may require potential project land acquisition impacts causing physical and/or economic displacement including restrictions on access to legally designated parks and protected areas. Thus, below Subsections will aim to entertain the required mitigation measures for the specified potential project induced land acquisition or restrictions on land use impacts.

4.1 Synthesis of Project Activities Against Land Demand

Subcomponent 2.1: Legal, regulatory, and institutional capacity for telecommunications sector and digital economy (US\$ 0.15 million IDA)

This sub-component will support TA to update national legal and regulatory frameworks in line with evolving market dynamics and emerging technologies. In Sierra Leone, the project will support strengthening regulatory frameworks to ensure submarine cable landing rights for the SPV and open access of the cable infrastructure.

A Resettlement Plan (RP) will not be required as the project will support strengthening regulatory frameworks.

Subcomponent 2.2: International and core backbone network infrastructure (US\$13.55 million IDA & unguaranteed commercial financing)

This sub component will support the expansion of international and regional connectivity in Sierra Leone by supporting the design, financing, and deployment of new submarine cable systems and landing stations built on open access, energy efficiency, and climate resilience principles.

A Resettlement Plan (RP) will be developed and implemented for most of the activities described under this Subcomponent.

4 RECOMMENDED MITIGATION MEASURES

It is not possible at this stage to determine the number of Project Affected Populations. This will be determined based on identification of the specific sites where the Subcomponent activities will be implemented. Potentially affected communities will be involved in identifying any adverse impacts, assessing the significance of the impacts, and establishing criteria for eligibility to mitigate and/or pay compensation. The below Subsections will present the likely potential adverse land related impacts along with the recommended mitigation measures.

4.1 Access Restriction

For Subcomponent 2.2. the project proposes to expand international and regional connectivity in Sierra Leone by supporting the design, financing, and deployment of new submarine cable systems and landing stations built on open access, energy efficiency, and climate resilience principles. There may be temporary or permanent restriction of access to land, beaches, fishing grounds, or business premises and loss of income or livelihood for small business operators, vendors, fishers. Mitigation measures for access restriction may include the following:

- Small business operators and vendors (i) Provide advance notice of work and expected duration of access restriction (ii) Ensure that temporary relocation assistance is provided or support to continue business elsewhere during construction (iii) Provide compensation for lost income during the period of access restriction
- Fishers and coastal resource users (i) Conduct stakeholders and community consultation with fishing communities to identify critical fishing periods and areas (ii) Schedule cable laying activities to avoid peak fishing seasons (iii) Provide compensation for temporary loss of access to fishing grounds, if applicable (iv) Sensitize the communities and provide clear marking of cable routes to prevent accidental damage and ensure safety
- Residents and Land Users (i) Minimize physical displacement by prioritizing state land in Sussex, Western Area Rural District, Freetown and existing rights-of-way (ii) Provide compensation for any loss of access to land, property, or resources at full replacement cost (iii) Ensure assistance is provided for vulnerable groups (e.g., women, elderly, disabled) to ensure equitable treatment.

4.2 Land Acquisition and Involuntary Resettlement

For Subcomponents 2.2, the project's support to deploy a cable landing station and associated infrastructure may induce temporary and permanent land acquisition. At this stage, the specific sites are unknown, hence the nature and extent of involuntary resettlement impacts remain unclear. To address the potential project induced land acquisition impacts, the project will prepare, consult up on, and disclose RP/LRP. MoCTI PCU, SPV and other implementing entities will prepare and implement appropriate mitigation measures defined in a resettlement and livelihoods support plan tailored to the actual impacts of physical and/or economic displacement in accordance with the principles outlined in this RF, and in compliance with SL land laws and WB ESS5.

4.2.1 Preparing a Resettlement Plan (RP)

All projects causing physical or economic displacement through land acquisition or project-related restrictions on resource access or use are required to prepare a resettlement plan for World Bank approval. The MoCTI PCU will be responsible for the preparation and implementation of the RP (or RPs). The MoCTI PCU will exercise its authority to coordinate actions with any other involved implementing partner departments, agencies, jurisdictions, or project contractors to promote timely and effective planning and implementation.

RP preparation begins once the physical footprint of a proposed investment has been determined, establishing that a particular site (or sites) must be acquired for project use. First, the MoCTI PCU will screen proposed sites to identify current usage and tenurial arrangements and identifies the site (or sites) that will minimize physical and economic displacement (See Screening Form For Land Acquisition And Resettlement in appendix 8). Subsequently, MoCTI PCU will carry out, or causes to be carried out, a census survey to identify and enumerate all displaced persons on the selected site (or sites) and to inventory and value land and other assets that are to be acquired for project use. Below are the key steps and processes required in resettlement planning.

4.2.1.1 Categorization of Project Activities with respect to Land Needs

As far as land needs and resettlement requirements are concerned under sub-component 2.2, two different situations may be encountered in the course of the implementation of the WARDIP SOP2 in Sierra Leone:

- (a) The project components will be established on state-owned/Government (public land). In such cases, written confirmation of legal status and undisputed ownership, lands free from any encumbrance or encroachment will be required, confirmed by World Bank or independent agency (due diligence documentation) before these are approved.
- (b) The implementation of the project components may require land acquisition (e.g., involuntary land acquisition from individuals (privately owned) with freehold title, lease or customary holding and involuntary land acquisition from communities).

In situations where there is no land acquisition involved as stipulated in (a) above, it means that procedures required by the Sierra Leonean land laws do not need to be applied. The proposed processes will therefore need to be consistent only with WB ESF requirements. On the other hand, if land take is required, then both Sierra Leonean laws and procedures and WB requirements must be followed.

4.2.1.2 Screening of Project Activities

Subproject activities will be screened (based on Screening Form For Land Acquisition And Resettlement in appendix 8). to determine if there is a need for the preparation of any resettlement instrument (RP/LRP). MoCTI PCU and other project implementing entities, through the MoCTI PCU in consultation and coordination with, community heads, local councils, male and female community representatives will use the the screening form to determine the number of affected persons/assets under WARDIP SOP2 in Sierra Leone activity that is likely to generate resettlement related or compensation issues.

All Subcomponent activities should be screened prior to implementation. The result of the screening will determine whether there is a need for preparation of RP and/or LRP (designed to restore, and ideally improve, the income and living standards of people whose livelihoods are adversely affected by a project) for the identified sites.

All RPs will need World Bank’s review and approval prior to commencing resettlement activities, including payment of compensation. Resettlement activities including payment of compensation and relocation of affected persons must be completed before commencing civil works.

4.2.1.3 Conduct a Census of Affected Persons and Assets

Upon identification of the need for involuntary resettlement in a Subcomponent activity, the project will carry out a census to identify the persons who will be affected by the proposed activity/ies. This will help the project to determine the magnitude of impact, the type and scope of RP/LRP to prepare, who will be eligible for assistance early enough in the project cycle. It will also help to prevent an inflow of ineligible people living outside the project area of impact but who might want to take advantage and claim for assistance.

4.2.1.4 Defining a Cut-off date

MoCTI PCU (in partnership with other relevant project implementing agencies) will establish a cut-off date for eligibility to resettlement entitlements for the project, which can be defined as the date of completion of census and asset inventory of PAPs. Information regarding the cut-off date will be well documented and will be disseminated throughout the project area at regular intervals in written and (as appropriate) non-written forms and in relevant local languages.

Project affected persons, communities and relevant stakeholders will be informed of the cut-off date with warning that persons who will undertake any activities after the cut-off date. will be removed without compensation. This will help prevent any encroachment by opportunistic persons or groups and ensure transparency in the process.

4.2.1.5 Stakeholder Engagement during Resettlement Planning and Implementation

Consultations with stakeholders including PAPs will be an integral part in the RP preparation, implementation and monitoring processes at all stages. Stakeholders should have access to the RP developed for the project. Consultations should happen in the local language of the PAPs whenever possible; and engagement with women as well as other vulnerable individuals and groups should be undertaken separately and in a culturally acceptable manner. The consultation process should ensure sizeable participation of women, youth, and groups at risk of exclusion, and also ensure prior distribution of project information in a form that is accessible and understandable to community members. The stakeholder engagement will be done to offer the stakeholders opportunity to express their concerns and when possible be allowed to choose between options.

MoCTI PCU will disclose a draft RP to the displaced persons after WB’s review and approval. The final RP should be disclosed on MoCTI PCU and the respective implementing entities websites, designated locations, widely read Newspapers, as well as on WB external website.

4.2.1.6 Documentation/ Data Base

The RP should be complemented by a separate set of individual compensation files for each displaced household or person. These files are to be handled confidentially by the MoCTI PCU to avoid any prejudice to displaced persons.

Additional planning measures must be incorporated into the RP for project activities causing physical displacement, or significant economic displacement.

If project activities are causing physical displacement, the RP should include planning measures relating to the following, as relevant for project circumstances:

- (a) Description of relocation arrangements, including options available to displaced persons, and including transitional support for moving or other expenses
- (b) Description of resettlement site selection, site preparation, and measures to mitigate any impacts on host communities or physical environment, including environmental protection and management
- (c) Measures to improve living standards and otherwise address needs of relocating poor or vulnerable households, including measures to ensure that replacement housing is at least consistent with minimum community standards and is provided with security of tenure
- (d) Description of project design measures to improve living standards, access to or functioning of community services or facilities, or for providing other project-related benefits
- (e) Any measures necessary to address impacts of resettlement on host communities.

For project activities causing significant economic displacement,⁹ the RP describes the following (as relevant):

- (a) The scale and scope of likely livelihoods-related impacts, including agricultural production for consumption or market, all forms of commercial activity, and natural resource use for livelihoods purposes.
- (b) Livelihoods assistance options (for example, employment, training, small business support, assistance in providing replacement land of equivalent productive value, other) available to persons losing agricultural land or access to resources
- (c) Assistance measures available to commercial enterprises (and workers) affected by loss of assets or business opportunities directly related to land acquisition or project construction
- (d) Project measures to promote improvement of productivity or incomes among displaced persons or communities.

4.2.1.7 Eligibility for Compensation

According to the World Bank ESS 5, the eligibility categories include:

- (a) Who have formal legal rights to land or assets;
- (b) Who do not have formal legal rights to land or assets, but have a claim to land or assets that is recognized or recognizable under national law; or
- (c) Who have no recognizable legal right or claim to the land or assets they occupy or use.

According to the World Bank ESS5, PAPs are defined as any person who, as a result of the implementation of a project, loses the right to own, use, or otherwise benefit from a built structure, land (residential, agricultural, or pasture), or any other fixed or moveable asset, either in full or in part, permanently or temporarily. Therefore, the eligible individual(s) for compensation are those who will be impacted by:

- (a) The compulsory taking of land and other assets resulting in the following:
 - i) Relocation or loss of shelter,
 - ii) Loss of assets or access to assets; and
 - iii) Loss of income sources or means of livelihood whether or not the affected persons must move to another location.

⁹ Consideration of scale of loss of productive assets as well as changes in institutional, technical, cultural, economic, and other factors may be important in determining the significance of economic displacement. In general practice, however, loss of 10 percent or more of productive land or assets from a household or enterprise often is considered significant. Additional details regarding planning measures for economic displacement are provided in ESS5, Annex 1, paras. 24–29.

(b) The forceful denial of access to legally designated social, natural, economic services, with adverse impacts on livelihood of displaced individuals.

The PAPs shall be considered eligible for compensation irrespective of their tenure status, with respect to land that they own, occupy or use provided they own, occupy or use the affected land or structure prior to the cut-off-date.

An illustrative eligibility criteria and entitlement matrix for compensation and all other forms of assistance is summarized in a table and presented below, to be adopted by the RP.

Project Entitlement Matrix: Based on the national laws and ESS5, an entitlement matrix has been prepared and presented in the Table 1 below. Any missing values in the entitlement matrix will be determined at the time of the preparation of a RP. Appendix 9 presents a suggested outline for preparation of RP Entitlements Matrix.

Table 19: Eligibility Criteria and Entitlements

Affected Assets	Type of impact	Entitled Units	Eligibility Criteria	Entitlement
Land	Permanent acquisition of land	Landowner (individual, family, community)	Owns the affected plot of land under Sierra Leone laws including customary	<ul style="list-style-type: none"> ▪ In-kind compensation (land to land) for land-based displacement at a suitable location comparable to the previous land or better ▪ Cash compensation for land is determined by prevailing market rates where primary livelihood is not land based and where there is satisfactory demonstration of lack of adequate land or strong preference by the PAP. ▪ Land replacement for community Lands or if unavailable, compensation be paid to the community with their full consultation and participation. ▪ Cash compensation covering all administrative, land registration and transfer fees
	Temporary occupation of land	Landowner (individual, family, community) and legal occupier/tenant	Owns the affected plot of land under Sierra Leonean laws including customary	<ul style="list-style-type: none"> ▪ Compensation (in cash or kind)- for the period of occupation based on terms of occupancy as agreed among the parties. Compensation for loss of crops or assets on the land during the period of occupancy at full replacement cost.
Crops (food/cash crops and economic trees inclusive)	Destruction of or damage to standing crops	Owner or Farmer--egal or illegal occupier	Have grown the affected crop (regardless of related plot ownership)	<ul style="list-style-type: none"> ▪ Cash compensation for standing crops counted at valuation date and based upon updated current Survey Department rates ▪ Cost of replanting to the same maturity level, the estimated life and harvest from tree (fruit trees) ▪ Disturbance allowance of 10% of cash compensation amount or at a rate determined by WARDIP SOP2 in Sierra Leone. ▪ To the extent feasible, allow farmers to harvest crops before start of project interventions

Affected Assets	Type of impact	Entitled Units	Eligibility Criteria	Entitlement
Structures	Destruction of immovable structures	Owner---	Owns affected structure	<ul style="list-style-type: none"> ▪ Compensation at full replacement cost of structure ▪ Cost of moving (e.g. persons/ goods in the structure under or belonging to owner) ▪ Disturbance allowance of 10% of cash compensation for full replacement or at a rate determined by the WARDIP SOP2 in Sierra Leone.
		Occupant	Live in or use the affected structure on rental basis (Occupant different from owner)	<ul style="list-style-type: none"> ▪ Cost of renting a similar structure (e.g. for 6 months' duration) ▪ Cost of moving out to a new place ▪ Disturbance allowance of 10% of cost of renting similar structure or at a rate determined by WARDIP SOP2 in Sierra Leone
	Relocation of movable structures	Squatter	Live in or use the affected structure as at time of census	<ul style="list-style-type: none"> ▪ Compensation for full replacement cost
		Owner	Owns the affected structure	<ul style="list-style-type: none"> ▪ Cost of moving affected structure to new site ▪ Disturbance allowance of 10% of cost of moving similar structure or at a rate determined by the WARDIP SOP2 in Sierra Leone
		Occupant	Use or occupies the affected structure	<ul style="list-style-type: none"> ▪ Cost of moving occupants to new site ▪ Disturbance allowance of 10% of cost of moving occupants to new site or at a rate determined by WARDIP SOP2 in Sierra Leone [NB: if owner is same as occupant, he/she will not be entitled to this disturbance allowance].
Livelihoods	Agriculture - destruction of economic or cash crop	Farmer, Tenant and user of land	Use affected land for farming as livelihood sources (emphasis on perennial crops. Annual crops can be harvested prior to land entry or destruction)	<ul style="list-style-type: none"> ▪ Cash compensation for any temporary loss of income or livelihood incurred as a result of the project during the transition period (period required to reestablish farms elsewhere).
	Business	Business owner (may be distinct from owner of structure where business takes place)	Operate a business on Project affected land, regardless of the land ownership situation (including squatters)	<ul style="list-style-type: none"> ▪ Cash compensation for temporary loss of income or livelihood incurred because of the Project during the period required to re- establish the business to pre-project conditions ▪ Provide alternative resources with equivalent livelihood-earning potential and accessibility.

Affected Assets	Type of impact	Entitled Units	Eligibility Criteria	Entitlement
	Use of communal resources such as livestock grazing grounds (or involuntary restrictions to community assets)	User of such resources (can be individuals or communities)	Use communal resources as an element of livelihood	<ul style="list-style-type: none"> ▪ Assistance in identifying and accessing similar resources elsewhere possible ▪ Cash compensation for temporary loss of income incurred because of the Project during the period required to access similar resources elsewhere/period required to provide alternative livelihood assistance ▪ Provide livelihood assistance (access to loans, training etc.)
Cultural heritage resources (e.g. sacred site, cemeteries/ graveyards).	Relocation or removal of cultural heritage resource	Owner (individual or community)	Use or pay homage to cultural heritage resource/ sacred site	Avoid any impact on cultural heritage resources by finding alternative locations. If impact is unavoidable, ensure successful relocation or removal of cultural resource/ sacred site in accordance with Chance Find procedures prescribed under the ESMF.
Vulnerable groups. People with special needs, Elderly, physically challenged, long term sick, Female Household Head and people living with HIV/AIDS	All types of loses			<ul style="list-style-type: none"> ▪ Transition assistance – removing and dismantling of assets. ▪ Free transportation to relocation sites for moveable structures affected Assistance during the transition period. ▪ Extra arrangements for psychosocial care and counselling before movement.

5 VOLUNTARY LAND DONATION (VLD)

Voluntary land donation (VLD) is a process where an individual or community agrees to provide land for project-related activities without compensation. This process is strictly defined and involves several key principles to ensure that the donation is made freely and with full knowledge of the implications.

VLD should generally be discouraged given the overwhelming vulnerability of Project-Affected Persons (PAPs). It should only be authorized for formal and non-vulnerable owners in exceptional cases. Activities or project components have to clearly document (a) the potential donor or donors have been appropriately informed and consulted about the program and the choices available to them; (b) potential donors are aware that refusal is an option, and have confirmed in writing their willingness to proceed with the donation; (c) the amount of land being donated is minor and will not reduce the donor’s remaining land area below that required to maintain the donor’s livelihood at current levels; (d) no household relocation is involved; (e) the donor is expected to benefit directly from the program; and (f) for community or collective land, donation can only occur with the consent of individuals using or occupying the land. Procedures must be put into place to ensure that the donation is indeed voluntary, that the donor is the legitimate owner of land-use-rights on such lands, and that the donor is fully informed of the purpose of the donation and of the implications of donating the property. If the land is donated on a conditional basis,

the terms and conditions for the temporary use of the property must be clearly documented. (See Annex 3: Summary of the Intent and Process of Voluntary Land Donation (VLD))

6 SPECIAL ASSISTANCE FOR VULNERABLE PAPs

Disproportionately impacted groups who are mostly vulnerable due to their distinct livelihood strategies, ways of living and other socio-economic dynamics. For these individuals/ groups, in addition to resettlement, compensation and livelihood restoration programs, additional mitigation mechanisms are required. i.e. assistance in the compensation payment procedure, assistance in moving properties and identifying the resettlement plot (as needed), assistance in building activities, assistance during the post-resettlement period and health care if required, particularly during the moving and transition periods.

Within the project, the vulnerable or disadvantaged groups may include but are not limited to low-income households, women, youth, the elderly, persons with limited mobility or persons with disabilities. And female headed households. During the RP preparation period, vulnerable groups and individuals within the communities to be affected by the project will be further confirmed and consulted through dedicated means, as appropriate.

Moreover, the project will work on suitable design and standards for infrastructure that will address the needs of girls, women, boys, and people with disabilities. By enforcing gender sensitive infrastructure, WARDIP SOP2 in Sierra Leone will emphasize gender and social inclusion.

7 INSTITUTIONAL ARRANGEMENT FOR RP IMPLEMENTATION

The implementing agencies involved in the project are the MoCTI PCU. The MoCTI PCU will have overall responsibility for Project implementation and coordination among other implementing agencies. The existing Project Coordination Unit (PCU) of the ongoing Sierra Leone Digital Transformation Project (P177077) will serve as the PCU of the WARDIP SOP2. Building on its current mandate and capacity, the PCU will be responsible for core implementation functions, including environmental and social safeguards.

Table 20: Roles and Responsibilities in the Implementation of RP

Stage of RP Implementation	Responsible party(s)
Identification of project site	MoCTI PCU
Screening for resettlement planning	MoCTI PCU
Determine the need for RP/LRP	MoCTI PCU
Preparation of TOR for RP	MoCTI PCU
Procurement of consultant for RP	MoCTI PCU
Preparation of RP	Consultant
Stakeholder consultation and GM	MoCTI PCU
RP review	MoCTI PCU and WB
RP clearance	World Bank
RP in country clearance and permit	National Development Induced Displacement Secretariat
RP disclosure	MoCTI PCU
RP implementation	Consultant
Monitor RP implementation	MoCTI PCU
RP completion audit (ToR preparation)	MoCTI PCU
Conduct RP completion audit	Consultant

8 PROJECT GRIEVANCE REDRESS MECHANISM (GRM)

The Stakeholder Engagement Plan (SEP) prepared for the WARDIP SOP2 in Sierra Leone, contains the description of the project GRM that allows any project-affected person and other stakeholders to file grievances with the project as well as other project-related concerns. Additionally, the project will provide a separate worker GRM, as part of the Labor Management Procedures (LMP) that specifically addresses grievances related to all project workers. As per World Bank standards, the GRM operates to be responsive to SEA/SH cases with procedures further to be detailed in the SEA/SH Prevention and Response Action Plan. The GRMs aim to address concerns in a timely and transparent manner and effectively. It will be widely disseminated in all project areas, through means identified in the SEP. They will be readily accessible for all project-affected parties. They do not prevent access to judicial and administrative remedies. They are designed in a culturally appropriate way and can respond to all needs and concerns of project-affected parties. Refer to SEP.

9 STAKEHOLDER CONSULTATION UNDERTAKEN DURING PROJECT PREPARATION AND E&S INSTRUMENTS DEVELOPMENT

Stakeholder inputs are captured in ESMF, in Chapter 9.

10 MONITORING AND EVALUATION OF RP

MoCTI PCU in collaboration with other implementing entities will make arrangements for monitoring implementation of the Resettlement Plan (RP) and/or Livelihood Restoration Plan (LRP) and will provide periodic monitoring reports to the World Bank regarding the status of land acquisition and implementation of the developed resettlement plan/s. The implementation monitoring will examine the effectiveness of mitigation measures in achieving RP and ESS5 objectives and recommends corrective measures to meet objectives not yet achieved.

The monitoring modalities, institutional arrangements, the required budget and resources, monitoring indicators, monitoring timetable, etc. will be clearly defined during the RP development at specific sites, scope and magnitude of displacement impact are sufficiently known and of course prior to commencement of any physical work of the WARDIP SOP2 in Sierra Leone.

ANNEX 2: LABOUR MANAGEMENT PROCEDURES (LMP)

1. Overview of Labor Use on the Project

The Labour Management Procedures (LMP) apply to project workers including full-time, part-time and temporary workers. In accordance with the provisions of The Environmental and Social Standard (ESS 2) of the World Bank Environmental and Social Framework (ESF), projects employ different categories of workers which are defined below:

1.1 Number of project workers

The project will involve a large number of workers, but total number of project workers by category cannot be estimated at this stage. However, the category and characteristics of workers envisaged under the project are described in the next section.

Direct workers: These workers will include staff of the MoCTI PCU and the SPV, who are hired to implement the Project. The workers include staff at PCU and people employed or engaged by the PIU to carry out design and supervision, monitoring and evaluation, or community engagement in relation to the project. The existing Project Coordination Unit (PCU) of the ongoing Sierra Leone Digital Transformation Project (P177077) will serve as the PCU of the WARDIP SOP2 but will recruit and maintain one Social & GBV specialist to complement the work of the existing Environmental Specialist. The SPV will recruit and maintain qualified staff, including one Environmental Specialist and one Social Specialist to oversee the implementation of the ESHSRMS. Project implementation will be anchored in the existing PCU of the Sierra Leone Digital Transformation Project (P177077). Technical specialists will be recruited within this MoCTI PCU to support the new operation, while fiduciary, and M&E functions will continue to be managed by the established PCU housed at the Ministry of Communication, Technology and Innovation (MoCTI), with an estimated staff total of 13, which includes ancillary and support staff (secretaries, drivers and cleaners and messenger). During implementation, the number of workers will increase with the hiring of consultants and other specialists for specific tasks.

Contracted Workers. These are workers employed or engaged through third parties (contractors, sub-contractors, staff of supervision consultants, brokers, agents, or intermediaries) to perform work on the project, regardless of location as in the case of the deployment of the sub-marine cable, construction of landing station and installation of terrestrial fiber optic backbone infrastructure. The contracted workers include those who will be carrying out the studies and those who will carry out the work during project implementation.

Two broad categories of contracted workers are expected: (i) private organizations (contractors, sub-contractors) who will provide local capacity building, as well as implementation support services to the MoCTI PCU and other stakeholders; and (ii) those who work under the civil works contractors. Under the civil works, the workers would be hired in the implementation of infrastructure sub projects including the laying of the cables and building of the station. The estimated number of contracted workers is yet to be determined.

Primary supply workers: Primary supply workers will be engaged on the project as certain supplies of materials (i.e., submarine cables, equipment, construction materials sourced both locally and abroad etc.) will be required within the project. However, these impacts are not subject to ESS2 but will be looked through the lens of ESS1 and ESS4 and the area covered by relevant management plans (i.e., the Project level ESMF, Sub-Project specific ESMPs and any Contractors management plan as required by the ESMF).

For risks of child labor, forced labor and serious safety issues the borrower will require the supplier to assess these risks and the labor management procedures will lay out the responsibilities for monitoring primary supplier

Community workers: The project will not employ community workers.

1.2 Characteristics of Project Workers

The characteristics of the workers are very much dependent on the nature of project activities. Besides the deployment of the Submarine cable and landing station, the main activities are technical assistance and capacity building. The deployment of submarine cables will be contracted to private firms specializing in this field, which will require experts (engineers and technicians), engineers and other experts specializing in working in a marine environment. They would be migrant contracted workers working mainly at sea.

For civil work, a construction firm will be hired, and the work force will include experts (civil engineer, surveyor, site manager, construction supervisors), skilled and unskilled workers.

For the technical assistance and capacity building activities individuals or companies specializing in different fields may be contracted for the delivery of these services. The nature of the labor force will be experts and may include Telecommunication experts, Legal experts, financial experts, communication experts (for the outreach).

Given the nature and characteristics of the construction industry in Sierra Leone, it is likely that the labor will be predominantly male. Female workers will be engaged in the MoCTI PCU and SPV as direct workers. Women workers may also be hired in lead and support roles in outreach and communication programs to increase awareness of the facilities and opportunities of the expanded digital access for private business and for individuals. Many of the workers to be recruited will be local.

When the project's location has been determined during implementation and its potential impacts on local livelihoods, there is a preference for the recruitment of local labor, particularly from the affected fishing communities in and around the Sussex area, where the Beach Manhole (BMH), Cable Landing Station (CLS) and the land network from landing station to the cities would be situated. By prioritizing the hiring of local workers, especially those whose livelihoods may be impacted the project aims to support economic opportunities and foster positive community relations. Contractors and subcontractors will be encouraged to work closely with local leaders and community representatives to ensure transparent communication of job opportunities and fair access for members of the affected fishing communities.

1.3 Timing of labor requirement

The direct workers (MoCTI PCU staff) will be required full-time and for the entire project duration. Other experts/consultants will be hired on demand throughout the project period. Timing for involvement of contracted workers will be known at later stages. However, they will be engaged depending on implementation of various sub-components on specific time slots.

2. Assessment Of Key Potential Labor Risks

2.1 Project activities

The proposed project activities are:

- Deployment of new submarine cable systems
- Construction of landing station proposed in Sussex as the most suitable location. The length of this terrestrial segment should be limited to a maximum of a few kilometers (less than 2 km as far as possible). Its length will therefore depend on the physical location of the CLS and land network from CLS to the cities.

2.2 Key Labor risks: The key labor risks which may be associated with the project

i. Risk of accidents for workers

In the exercise of their duties, workers engaged by the project can be involved in accidents including road traffic accidents caused by non-compliance with the traffic regulations, faulty rolling stock, driver indiscipline. Measures to reduce these risks will include raising awareness of project workers on the need to respect the Highway Code; the regular maintenance of service vehicles and having in place a monitoring and maintenance book; and an up-to-date insurance policy. The prohibition of alcohol consumption during service hours and compliance with occupational health and safety measures are also important preventive measures. Workers should be required to sign Code of Conduct upon recruitment wherein each worker agrees to abide by occupational health and safety measures, as well as expected behaviors to prevent SEA/SH and maintain respectful community relations. This Code of Conduct will be included in their written employment contracts.

ii. Occupational Health and Safety (OHS) Risks

At the construction site for the landing station, the data center and the cybersecurity center, these contracted workers will be from the local population and hence the local population may need training for the construction of the facility as the risk of accidents leading to injuries remains high. To mitigate the risks, contractors will be required to develop and implement written labor management procedures, including procedures to establish and maintain a safe working environment as required by ESS2. They will be required under the Environmental and Social Management Plan (ESMP) to ensure workers use basic safety gear, receive basic safety training and other preventive actions as provided in the Project's Environmental and Social Management Framework (ESMF) as well as the World Bank's Environmental, Health, and Safety (EHS) Guidelines.

iii. Labor Risks Associated with SEA/SH & VAC

The presence of temporary workers within communities where there are significant differentials in earnings could give rise to sexual exploitation and abuse. Similarly, among project workers the power differentials may lead to SEA/SH. To address these risks, contractors will be required to have a written contract with their workers consistent with the objective of ESS2 and in compliance with this LMP, and sign Codes of Conduct (CoC) for workers that prohibit SEA/SH. Any SEA/SH/VAC risks pertaining to these activities will be addressed in the SEA/SH Prevention and Response Action Plan that is being prepared under the ESMF for the project in all Environmental and Social Management Plans (ESMP). As there is a strong focus on training and capacity building activities there are also risks related to SEA/SH. A sample code of conduct is captured in appendix 19.-----

iv. Risks of Communicable Diseases

Communicable diseases of most concern, especially during the entire Project life cycle, , sexually transmitted diseases (STDs), and HIV/AIDS due to influx of workers living within the communities.

The risk of spreading communicable diseases is always present irrespective of the duration of the Project activity and increases with the importation of workers to communities. Communicable diseases of most concern, especially during the implementation and operation phases, are sexually transmitted diseases (STDs). The presence of large numbers of training participants in a single room without respecting the COVID-19 protocols on social distancing could also give rise to COVID-19 infections. All such gatherings should therefore respect the WHO and National guidelines for the prevention of the spread of disease, and these include amongst others the wearing of masks and social distancing.

v. Labor risks associated with discrimination, especially for vulnerable groups and lack of transparency

The principle of equality, nondiscrimination and transparency are the key principles underlying employment decisions such as hiring and promotion, the ability of a person to perform the work, and access to employment opportunities, without regard to personal characteristics that are unrelated to the inherent work requirements. The provisions of national laws and the requirements of ESS2 in this regard are very clear and they should be fully applied where such cases arise. The establishment of Grievance Mechanism (see below) provides an outlet to address such issues.

As regards direct workers within the MoCTI PIU and SPV who have physical or mobility disabilities, the employer should ensure that access to such buildings is facilitated by providing wheelchairs, ramps or elevators. Similarly, workers with hearing disabilities should also be provided with alternative formats of communication, such as large print, Braille, accessible digital formats, or audio tape to receive information. This information should be made available to workers with disability at the time of their recruitment.

vi. Overtime Work Risk

This risk relates to failure of paying wages or refusal to pay overtime, especially to contracted workers, who are likely to work overtime to meet tight schedules. The provisions of this LMP require a written commitment on the part of the contractor and subcontractor to fulfill these obligations in line with national law.

3. Brief Overview of Labor Legislation: Terms and Conditions

This section sets out the key aspects of national labor legislation with regards to term and conditions of work, and how national legislation applies to different categories of workers identified in Section 1. The overview focuses on legislation which relates to the items set out in ESS2, paragraph 11 (i.e. wages, deductions and benefits). Details of the National Environmental and Social Policy Framework Relevant Legal and Regulatory Framework are captured in Chapter 3.6. and 3.7 of the ESMF respectively.

Standards for labor and Working Conditions are defined in the Collective Bargaining Agreement (2020), the Factories Act 1974, and the Public Health Ordinance 1960. The Agreement (2020) is the most comprehensive and relevant, focusing on three key areas: (i) conditions of service and employment including wages and payment, establishment of Works Committees, employment of young people, maternity benefits, working hours and leave; (ii) health, safety, hygiene, and welfare, and compensation for injury; and (iii) trade unions and industrial relations. It applies to all ‘workers’ which are defined broadly in Article 3 to include all workers in the services group (government workers) as well those working for universities, local and international NGOs, professional and trade organizations, legal services, domestic workers, trade unions, diplomatic missions, etc. The Agreement covers contractors (and their operations at work sites), which implies that it is applicable to the management of development project that require

such use of labor or the creation of specific working conditions. Some significant provisions in the 2020 Agreement are described as follows:

- **Work hours:** Article 5 of the Agreement makes a provision of 8 working hours a day for an adult worker spread over five days Monday through Friday. The normal working hours per week and the days involved can be varied by written agreement between the employer and the worker but in such a manner that the total hours shall not exceed 40 hours in any week. Hours worked on normal rest days (i.e., weekends or other substituted rest days (and gazette public holidays shall be paid double time.
- **Wages:** Article 44 describes rates of wages and salaries. It notes that if a worker shall be paid a full day's wage if he/has been asked to commence work by a supervisor and is then prevented by rain from completing that day's work. An employer can temporarily replace an employee that is absent without permission, without a medical certificate, or that fails to communicate within three working days.
- **Regular leaves and benefits:** Article 45 sets out the terms of employee benefits and gratuity on retirement, resignation, termination, or death. Any employee who has served the same employer continuously for a period not less than one year and whose services are terminated for reasons other than gross misconduct, or any employee who retires, dies, resigns, shall be entitled to end of service benefits. The benefit is calculated as 33 working days for a service spanning 1 to 5 years, 40 days for 4-10 years, and 45 days for over 10 years. Notwithstanding provisions of this article, the National Social Security and Insurance Trust Act (2002) also applies. A worker who is on a salary scale shall be eligible for an annual increment, awarded every 12 months depending on the date of appointment or promotion (Art. 46). The terms of temporary work should be consistent with the nature of the project, where it is not already covered by the 2020 Agreement (Art. 46b).
- **Maternity leave:** Female workers will get paid maternity leave. An expectant mother would be entitled to a minimum of 12 weeks with full pay. Where it is still necessary to have further medical treatment after exhausting the leave, Art 16 and 17 shall apply. Article 16 provides for preventive Medicare examination and treatment of workers, which requires an employer to medically examine staff once in four months by a nominated doctor. A sick employee with a certificate from the establishment's medical officer or a certified practitioner shall be granted paid sick leave as follows- 35 days on full pay (for 1 to 5 years of service) followed by 35 days on half pay.
- **Safe work environment- Health/ Safety/ Welfare:** Workers whose nature of work involves a risk of personal safety or potential health hazard shall be provided at regular intervals with protective clothing and/or devices such as rubber boots, rubber suits, aprons, boots, masks, goggles, torchlights, or any other appropriate devices as the nature of work may require (Art. 30). The provision also requires the employer to establish a safety committee (Art 30b). The nature of work and the kind of protection to provide is covered in Art 31, while the requirement to provide working tools to employees as is covered in Art 33.
- **Notice periods:** A permanent employee at a company must give his employer 14 days' notice if s/he wishes to quit or one month notice if the employee is paid monthly. Termination is considered a 'discharge' in the case that an employee is fired for reasons of mental or physical incapacity, illness or other reasons not related to misconduct by the employee. An employer must pay compensation when a termination is unrelated to discharge or dismissal (Art. 45).

International Laws and Conventions

A total of 45 of International Labor Organization’s (ILO) Conventions have been ratified by Sierra Leone: 10 of the 10 fundamental conventions, 2 of the 4 governance conventions, and 33 of the 176 technical conventions. 31 of the 45 conventions ratified by the country are in force, 3 have been denounced, 3 have been ratified in the past 12 months, and 7 instruments have been abrogated. Some examples of conventions in force that are relevant to the project include:

- C029- Forced labor convention, 1930 (No. 29)
- C100- Equal remuneration convention, 1951 (No. 100)
- C105- Abolition of forced labor convention, 1957 (No. 105)
- C111- Discrimination (employment and occupation) convention, 1958 (No. 111)
- C138- Minimum age convention, 1973 (No. 138)
- C155- Occupational Health and Safety convention, 1985 (No. 155), etc.

Environment and Social Standards (ESS2): Labor and Working Conditions

This LMP is prepared in line with the requirements of ESS2: Labor and Working Conditions. It ensures a safe, healthy conducive working environment for workers in which working environment is free of forced and child labor as well as other forms of intimidation and harassment. ESS2 also ensures that workers have channels for grievance redress, freedom of association and access to collective bargaining rights as prescribed by national law. The standard also seeks to protect vulnerable workers such as migrant labor. The requirements of Labor and Working Conditions (ESS2) extend to direct, indirect, community and contracted workers as well as primary supply workers on a Bank financed project.

4. Brief Overview of Labor Legislation: Occupational Health and Safety

This section sets out the key aspects of the national labor legislation with regards to occupational health and safety, and how national legislation applies to the different categories of workers identified in Section 1. The overview focuses on legislation which relates to the items set out in ESS2, paragraphs 24 to 30.

Employment and Labor Law (2020)

The Employment and Labor Law, 2020 is the principal legislation governing labor relations, employment standards, and workplace safety in Sierra Leone. It consolidates and updates previous labor laws, providing a comprehensive framework for the rights and duties of employers, employees, and the government. The law is designed to regulate the tripartite relationship between employers, employees, and the state, and to ensure fair, safe, and non-discriminatory working conditions

Occupational Health and Safety (OHS) Provisions: The Employment and Labour Law, 2020, together with the Factories Act, 1974, forms the backbone of OHS regulation in Sierra Leone. The law explicitly states that it is the duty of every employer to ensure that every worker works under satisfactory, safe, and healthy conditions.

- Explicitly states that employers must ensure every worker works under satisfactory, safe, and healthy conditions.
- Employers are required to provide safety gear (raincoats, goggles, helmets, etc.), toilet and handwashing facilities, and maintain a safe work environment.
- Workers have the right to form unions and engage in collective bargaining

Under ESS2, the measures relating to OHS have a broader coverage of issues which are aimed at protecting project workers from injury, illness, or impacts associated with exposure to hazards encountered in the workplace or while working. It provides project workers to report work situations that they believe are not safe or healthy, and to remove themselves from a work situation in which they have reasonable justification to believe presents an imminent danger to their life or health. Project workers who remove themselves from such situations will not be required to return to work until necessary remedial action to correct the situation has been taken. Project workers will not be retaliated against or otherwise subject to reprisal or negative action for such reporting or removal. A system for regular review of occupational safety and health performance and the working environment will be put in place and include identification of safety and health hazards and risks, implementation of effective methods for responding to identified hazards and risks, setting priorities for taking action, and evaluation of results.

5. Responsible Staff

This section identifies the functions and/or individuals within the project responsible for (as relevant): The overview of responsible staff and oversight mechanisms has been described in further detail in the ESMF (Chapter 7). The MoCTI PCU through the Project Coordinator (PC) has the overall responsibility to oversee all aspects of the implementation of the LMP, to ensure contractor compliance including the management of the SPV. The contractor is subsequently responsible for management in accordance with contract-specific Labor Management Plans, implementation of which will be supervised by the MoCTI PCU and SPV monthly or at shorter intervals as defined by Monitoring, Evaluation and Reporting plan in section 7. The detailed approach is described as follows:

- **Occupational Health and Safety:** Contractors must engage a minimum of one Safety Officer. Smaller contracts may permit the officer to carry out other assignments as well. The Safety Officer ensures day-to-day compliance with specified safety measures and records of any incidents. Minor incidents are reported to the project monthly, serious incidents are reported immediately. Minor incidents are reflected in the quarterly reports to the World Bank; major issues are flagged to the World Bank immediately.
- **Labor and Working Conditions:** Contractors will keep records in accordance with specifications set out in this LMP. The MoCTI PCU and SPV may at any time require records to ensure that labor conditions are met. The PCU will also review records against actuals at a minimum monthly and could require immediate remedial action if warranted. A summary of issues and remedial actions will be included in quarterly reports to the World Bank.
- **Worker Grievances:** GRM procedures currently in place will remain for Project staff. Contractors will be required to present a worker grievance redress mechanism which responds to the requirements in this LMP. The Social Safeguards Specialist (SSS) in the MoCTI PCU and SPV will review records monthly. Where worker concerns are not resolved, the national system will be used as set out in the section, but the MoCTI PCU and SPV will keep abreast of resolutions and reflect in quarterly reports to the World Bank.
- **Additional Training:** Contractors are required to, always, have a qualified designated officer on board. If training is required, this will be the contractor's responsibility. The Safety Officer will provide instructions to contractor staff. The MoCTI PCU will provide training to address risks associated with labour influx and will provide a schedule for training required. The contractor will be obliged to make staff available for this training, as well as any additional mandatory training required by the project, as specified by the contract.

- Raising awareness: The MoCTI PCU will take the initiative to organize sessions on raising awareness of the communities on issues relevant to the project’s compliance and standards (e.g., labour standards, gender-based violence, etc). This, in addition to project’s Communication Strategy, will ensure effective and efficient participation of different stakeholders of the project.

6.Policies And Procedures

Decisions relating to the employment or treatment of project workers will not be made based on personal characteristics unrelated to inherent job requirements. The employment of project workers will be based on the principle of equal opportunity and fair treatment, and there will be no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, or disciplinary practices.

Most environmental and social impacts of subprojects resulting from activities directly under the control of contractors will be mitigated directly by the same contractors. Therefore, ensuring that contractors effectively mitigate project activities related impacts is the core of the project’s approach. The MoCTI PCU and SPV will incorporate standardized environmental and social safeguard clauses in tender documentation and contract documents, for potential bidders to be aware of environmental and social performance requirements that shall be expected from them, are able to reflect that in their bids, and required to implement the clauses for the duration of the contract. The MoCTI PCU and SPV will enforce compliance by contractors with these clauses.

As a core contractual requirement, the contractor is required to ensure all documentation related to environmental and social management, including the LMP, is available for inspection at any time by designated project staff or IPs. The contractual arrangements with each project worker must be clearly defined in accordance with national law. A full set of contractual requirements related to environmental and social risk and impact management will be provided in the project’s Environmental and Social Impact Assessment (ESIA). All environmental and social requirements will be included in the bidding documents and contracts in addition to any additional clauses, which are contained in relevant environmental and social instruments.

Under no circumstances will the MoCTI PCU and SPV, contractors, suppliers or sub-contractors engage forced labor. Forced labor includes bonded labor (working against an impossible debt), excessive limitations of freedom of movement, excessive notice periods, retaining the worker’s identity or other government-issued documents or personal belonging, imposition of recruitment or employment fees payable at the commencement of employment, loss or delay of wages that impede the workers’ right to end employment within their legal rights, substantial or inappropriate fines, physical punishment, use of security or other personnel to force or extract work from project workers, or other restrictions that compel a project worker to work in a non-voluntary basis can be referenced or annexed to the LMP, together with any other supporting documentation.

6.1 Terms and conditions

As stated in section 4 of this LMP the terms and conditions of employment are governed by the 2020 Labour Agreement. The Agreement makes it mandatory for employers to give their employees a copy of the written particulars of employment, signed by both parties. For this project, contractors will be required to provide all their workers with written particulars of employment. Contractors will also be required to comply with the wage terms issued by the Government (as prescribed by the Agreement) and reviewed

on a regular basis. The order specifies the minimum wages, hours of work, overtime pay, leave entitlements, travelling and subsistence allowances and the issue of protective clothing.

The Agreement states that before a contractor is awarded a public contract, he/she is required to certify in writing that the wages, hour and conditions of work or persons to be employed by him on the contract are not less favorable than those contained in the most current wages regulation issued. Where a contractor fails to comply with this requirement, the contract with the contractor may be withdrawn as an approved contractor upon recommendations of the MoCTI PCU and the SPV. In ensuring full compliance with the law in this regard, contractors will be required to furnish the project with copies of the Written Particulars of Employment or copies of contract of all its workforce. Contractors will not be allowed to deploy any employee to work on the project if such copy of employment of that employee has not been handed to the MoCTI PCU and SPV. As a monitoring mechanism, the contractor shall not be entitled to any payment unless he has filed, together with his claim for payment, a certificate: a) stating whether any wages due to employees are in arrears; b) stating that all employment conditions of the contract are being complied with.

6.2 Age of employment

Sierra Leone has adopted ILO conventions on child labor and incorporated them in the legal system. The minimum age of employment is 15 (based on C138- ILO minimum age convention ratified by Sierra Leone in 1973), but the employment relationship with persons under the age of 18 can be established with the consent in writing of a parent if work to be performed does not put at risk their health, integrity, or education. A person under 18 years of age must present a medical certificate attesting that he/she can perform the activities related to the specific job, and that such activities do not harm his/her health.

As contractors are expected to employ or engage highly qualified, experienced, and competent project workers, it is understood that no one under 18 years will be employed or engaged. If any contractor employs or engages a person under the age of 18 years, that contractor will not only be terminated and excluded from the project but will also be reported to the authorities (Ministry of Labor and Industrial Relations).

No other restrictions regarding the age of employment will be imposed. The age of workers will not be used as a criterion in deciding on hiring and promoting project workers or terminating their contracts. The contractors will be required to verify the identity and age of all workers. This will require workers to provide official documentation, which could include a birth certificate, national identification card, passport, or medical or school record.

6.3 Occupational Health and Safety

For OHS, the project is committed to:

- Complying with legislation and other applicable requirements which relate to occupational health and safety hazards (such as C155- ILO Occupational Health and Safety Convention, ratified by Sierra Leone in 1981).
- Enabling active participation in OH&S risks elimination through promotion of appropriate skills, knowledge, and attitudes towards hazards.
- Continually improving the OH&S management system and performance.
- Communicating this policy statement to all persons working under the control of the project with emphasis on individual OH&S responsibilities.
- Availing this policy statement to all interested parties at all project sites.

Implementing partners and contractors will be committed to:

- Identifying potential hazards.
- Investigating the cause of accidents at the workplace.
- Inspecting the workplace including any plant, machinery, and substance, with a view to ascertaining the safety and health of employees provided that the employer is informed about the purpose of the inspection.
- Accompanying members of the PCU in carrying out inspection duties in the workplace; and attending any toolbox meeting organized by visiting staff.
- Providing occupational health and safety training to all employees involved in works.
- Providing protective masks, helmet, overall and safety shoes, and safety goggles, as appropriate.
- Providing workers in high noise areas with earplugs or earmuffs.
- Ensuring the availability of a first aid box.
- Providing employees with access to toilets and potable drinking water.
- Properly disposing of solid waste at designated permitted sites allocated by the local authorities.

6.4 Contractor management

The project requires that contractors monitor, keep records and report on terms and conditions related to labor management. The contractor must provide workers with evidence of all payments made, including social security benefits, pension contributions or other entitlements regardless of the worker being engaged on a fixed term contract, full-time, part-time, or temporary. The application of this requirement will be proportionate to the activities and to the size of the contract, in a manner acceptable to the project and the World Bank. Records will cover:

- Labor conditions (records of workers engaged under the Project, including contracts, registry of induction of workers including CoC, hours worked, remuneration and deductions, collective bargaining agreements, etc.).
- Safety (recordable incidents and corresponding Root Cause Analysis, first aid cases, high potential near misses, and remedial and preventive activities required).
- Workers (number of workers, indication of origin- expatriate, local-, gender, age with evidence that no child labor is involved, and skill level).
- Training/ induction (dates, number of trainees, and topics).
- Details of any security risks (details of risks the contractor may be exposed to while performing its work); and
- Worker grievances (details including occurrence date, grievance, and date submitted; actions taken and dates; resolution and date; and follow-up yet to be taken).

6.5. Primary supply workers

All primary suppliers are formal businesses who are required to procure and produce materials subject to high standards. Any new supplier is vetted using a different form which screens the supplier regarding compliance with taxes, certification, licensing, and workmen's compensation. A separate form requires that the primary supplier identify the company's permanent staff and declare any current or prior arbitrations as well as any criminal convictions. Registered suppliers are subject to regular review. The review is carried out twice annually and requires The Procurement Specialist in the PCU to visit the supplier's premises.

6.6 Grievance mechanism

The Stakeholder Engagement Plan (SEP) set out the proposed Grievance Redress Mechanism (GRM) for the project. The SEPs will provide a framework for systematic and transparent stakeholder engagement across the project cycle. They will also guide the establishment and operation of Grievance Redress Mechanisms (GRMs), ensuring that affected communities can raise concerns, provide feedback, and seek timely resolution of issues arising during implementation. The SEPs also establish country-level grievance mechanisms (GMs) to receive and address complaints in a timely, transparent, and fair manner. These mechanisms will strengthen accountability, build trust, and foster inclusive decision-making throughout the project lifecycle. By systematically engaging affected and interested stakeholders, the SEPs and GMs will help manage expectations, mitigate environmental and social risks, and maximize the long-term social and environmental benefits of the project. SLDTP has prepared a GRM plan showing the Levels/Tiers of Grievance Redress which could be adapted for WARDIP 2. Figure 1 describes the GRM process at the Community/Project Site Level.

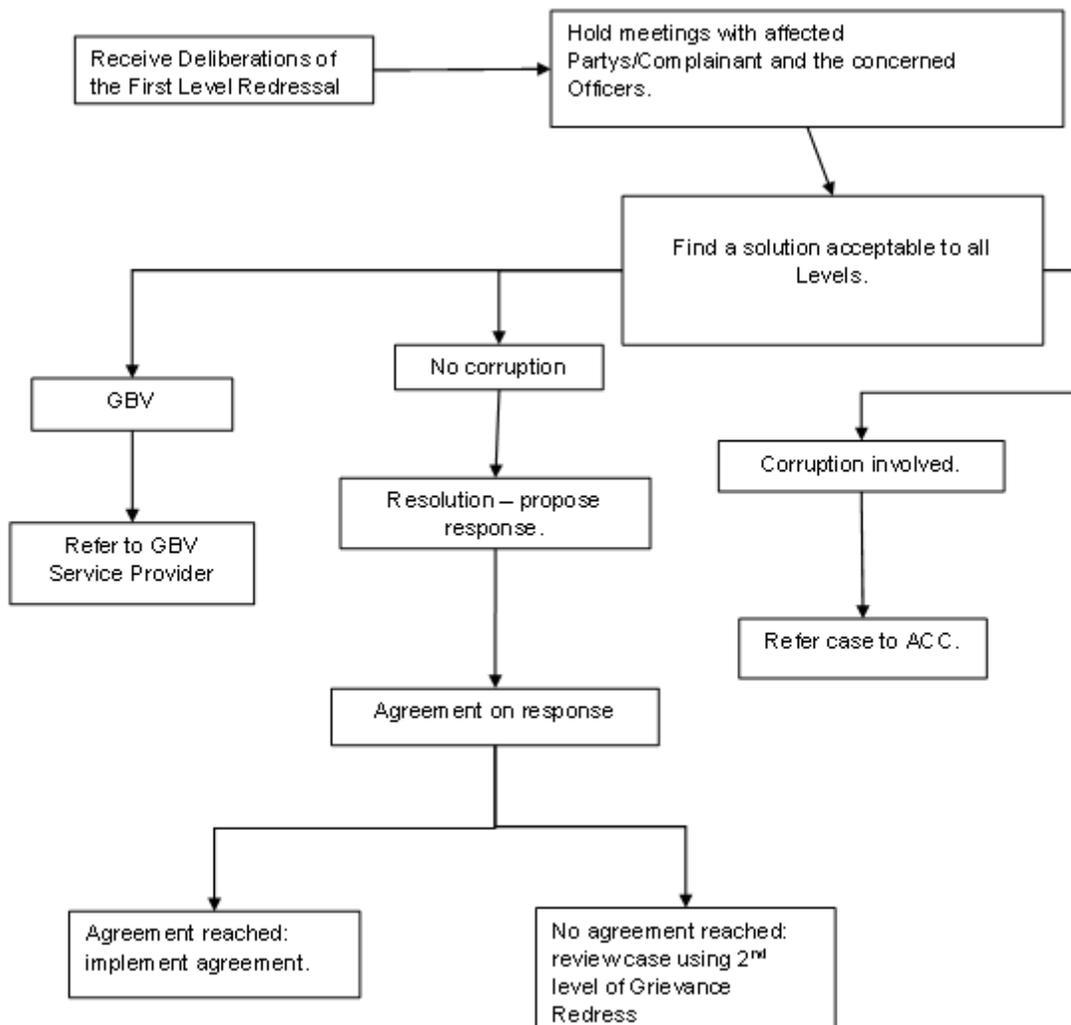


Figure 18: Tier 1 Grievance Redress Process (Community/Project Site Level)

Tier 2: PCU Level: All complaints received at the MoCTI PCU and the SPV level shall be registered by the E&S Specialist. All complaints received will be entered into the GRM Register. The following information (depending on what is provided) should be registered:

- First name, middle name, and surname.
- Residential address or telephone number.
- Contents of the complaint/request.
- Other background information.

For GBV/SEA/SH cases or in instances where the complainant prefers to be anonymous, the complainant will be assigned a code. Grievances will be categorized and based on their categorization referred to the appropriate authorities or addressed by the project's grievance redress committee. Once a decision is reached, the complainant shall be notified by the Safeguards Specialist and given details of the decision and the time indicated for its implementation. Once agreement has been reached, the complainant will be asked to sign off the grievance closeout form and the outcome shall be recorded.

If the complainant is not satisfied with the resolution of the case, the issue will be referred to the steering committee by the project coordinator. For land related conflicts, the MoCTI PCU and SPV will refer the complaint to appropriate authorities and monitor the process and progress of the complaint. The MoCTI PCU and SPV shall record, track, and note the outcome of all grievances reported regarding project activities.

In any working environment it is essential for both employers and employees to be fully conversant with all aspects of disciplinary processes, the grievance handling procedures and the legal requirements and rights involved. In implementing an effective dispute management system consideration must be given to the disputes resulting from the following: disciplinary action; individual grievances; collective grievances and negotiation of collective grievances; and gender- based violence, sexual exploitation, and workplace sexual harassment.

For Disciplinary Procedures, it is advisable that even implied rules be included in the disciplinary code or schedule of offences and must be valid or reasonable and clear and unambiguous. The employee should be fully aware or should reasonably be aware of the rules or standards; and implementing partners and contractors will establish a fair and effective disciplinary procedure. Such a procedure should make room for investigating to determine whether there are grounds for a hearing to be held. 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 also to be given reasonable time to prepare for the hearing and to be represented by a fellow employee or a representative of the Workers Committee in existence. Moreover, 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 is dismissed, he/she must be given reasons for dismissal and the right to refer to the dispute concerning the fairness of the dismissal. Therefore, it is incumbent upon the Contractors to ensure that they have a disciplinary procedure and Code and standards which the employees are aware of typically included in the Code of Conduct for workers. Additionally, these procedures and standards may also be detailed in the Contractors' employee handbook or policy manuals.

The project will enforce strict sanctions for any breaches of the Code of Conduct, particularly those related to Gender-Based Violence/Sexual Harassment (GBV/SH) and violence against children. All personnel are required to adhere to the Code of Conduct at all times. Violations, including acts of GBV/SH or violence against children, will result in disciplinary actions, which may include suspension, termination of employment, and referral to relevant authorities for further investigation and prosecution, as appropriate. These measures are intended to ensure a safe and respectful working environment for all.

For Individual Grievance Procedures, every employer, including contractors, should have a *Formal Grievance Procedure* which should be known and explained to the employees. The procedure must specify to whom the employee should lodge the grievance; refer to timeframes in the Labor Management Plan to allow the grievance to be dealt with expeditiously; and allow the person to refer the grievance to a Senior Official within the organization or use other routes if it is not resolved at the lowest level. All the contractors who will be engaged in the project will be required to produce their grievance procedure as a requirement for tender which at a minimum complies with these requirements. In addition, good international practice recommends that the procedures be transparent, are confidential, adhere to non-retribution practices and include the right to representation. After they are engaged, contractors will be required to produce proof that each employee has been inducted in the procedure.

Where Collective Grievances and Disputes result from the negotiations of Collective agreements, the contractor is entitled to negotiate on a regular basis with the employer over terms and conditions existing at the workplace. The procedures followed in such instances is usually contained in the contract, which states how the issues are raised, the procedure for negotiations, the composition of the parties involved in the negotiation and the procedure to deal with issues that are not resolved through consensus. In the type of disputes, if the dispute is not resolved at the workplace, the parties to the dispute can utilize the dispute resolution mechanisms provided for in the labour legislation.

In the case of Gender-based Violence, Sexual Exploitation and Sexual Harassment, the MoCTI PCU and SPV will identify institutions and service providers who are actively engaged in prevention of gender-based violence, sexual exploitation, and workplace sexual harassment to establish a manual for referencing any potential survivors. While MoCTI PCU, SPV implementing partners, and contractors might not be equipped to handle complaints or provide relevant services to survivors, they will refer any person to relevant service providers, including health facilities, law enforcement agents, and others. All GBV/SH-related complaints will be handled with strict confidentiality, ensuring that no information is disclosed publicly without the informed consent of the victim, and all resolution processes will prioritize the safety, dignity, and needs of the survivor. **Labour Influx and Gender Based Violence**

Contractors will maintain labor relations with local communities through a Code of Conduct (CoC). The CoC commits all persons engaged by the contractor, including sub-contractors and suppliers, to acceptable standards of behavior. The CoC shall include sanctions for non-compliance, including non-compliance with specific policies related to gender-based violence, sexual exploitation and abuse, and sexual harassment (e.g., termination). The CoC shall be signed by each worker to indicate that they: have received a copy as part of their contract, understand its content, acknowledge that adherence is a mandatory condition of employment, and understand that any violations of the CoC can result in serious consequences, up to and including dismissal, or referral to legal authorities.

While considering a low risk, contractors shall address the risk of gender-based violence, through:

- Mandatory training and awareness raising for the workforce about refraining from unacceptable conduct toward local community members, specifically women. Training may be repeated as needed;
- Informing workers about national laws that make sexual harassment and gender-based violence a punishable offence; and
- Adopting a policy to cooperate with law enforcement agencies in investigating complaints about gender-based violence.

These commitments and more will be featured in the GBV/SEA/SH Action Plan that is developed for the project.

6.7 Community workers

There will be no provision for Community Workers.

5. Verification, monitoring mechanisms and reporting

A list of monitoring indicators, frequency of monitoring and responsible party/parties for monitoring are presented in Table 2. The indicators are not exhaustive and can be updated during the preparation of sub project safeguards instruments and during project implementation.

Table 2: Monitoring, Evaluation and Reporting plan

Item	Monitoring Indicators	Frequency of Monitoring	Means of Verification	Responsibility	Supporting Agencies
Occupational Health and Safety Issues	<ul style="list-style-type: none"> • Number, type, place and time of accidents/incidents and/or near misses • Number of OHS and hygiene training programmes provided for sub project contractors' and sub-contractors' employees. • Number and type of PPEs distributed by Sub Project Contractors and Sub-Contractors • Number of workers on site wearing the appropriate PPEs • Presence of Health and Safety Officer on Site or otherwise • Site workers level of compliance with OHS standards e.g. wearing of PPEs • Presence of First Aid Kits on site or otherwise • Presence of Fire Extinguishers on Site • Hoarding material • Presence of handwashing facilities and hand sanitizers on site or otherwise • Suspected and confirmed COVID 19 cases on site 	<ul style="list-style-type: none"> • Monthly 	<ul style="list-style-type: none"> • Site Visits • Sub Project Contractors Accident Records books • Accident/ Incident Reports 	<ul style="list-style-type: none"> • MoCTI PCU and SPV 	<ul style="list-style-type: none"> • Sub Project Consultant • Contractors

<p>Labour Related Issues</p>	<ul style="list-style-type: none"> • Number of Sub Project Contractor and Sub-Contractor employees with formal Contracts • Presence of under aged workers (18 years and below) or otherwise • Number and type of employees recruited from the community by gender • Average monthly income of project workers and informal workers by gender • Working days and hours Contractor and Sub-Contractor employees who have signed and understand the Code of Conduct 	<ul style="list-style-type: none"> • Monthly 	<ul style="list-style-type: none"> • Site Visits • Inspection of Employees Contracts • Random interview of project workers 	<ul style="list-style-type: none"> • MoCTI PCU and SPV 	<ul style="list-style-type: none"> • Sub Project Consultant Contractors
<p>Gender Based Violence, Sexual Exploitation and Abuse, and Sexual Harassment</p>	<ul style="list-style-type: none"> • Uptake points of complaints • Number of SEA/SH/GBV cases reported by type • Number of SEA/SH/GBV cases under investigation by type • Number of cases under prosecution by type • Number of cases discharged by outcome • Sex and age of perpetrators and survivors • Duration between case reportage, feedback and case completion 	<ul style="list-style-type: none"> • Daily 	<ul style="list-style-type: none"> • Grievance Redress Mechanism platform • On Site Grievance Redress Register 	<ul style="list-style-type: none"> • MoCTI PCU and SPV 	<ul style="list-style-type: none"> • Sub Project Consultant • Contractors • GBV • Service Providers
<p>Community Health and Safety Issues</p>	<ul style="list-style-type: none"> • Uptake points of complaints • Number of GBV/SEA/SH cases reported by type and location (community) • Number of GBV/SEA/SH cases under investigation by type • Number of cases under 	<ul style="list-style-type: none"> • Daily 	<ul style="list-style-type: none"> • Grievance Redress Register • Top ten causes of morbidity from hospital records of the nearest Health Facility • Reported accidents at local police 	<ul style="list-style-type: none"> • MoCTI PCU and SPV 	<ul style="list-style-type: none"> • Sub Project Consultant • Contractors

	<p>prosecution by type</p> <ul style="list-style-type: none"> • Number of cases discharged by outcome • Sex and age of perpetrators and survivors • Duration between case reporting, feedback, and case completion • Incidence of communicable and non-communicable diseases in the project beneficiary communities • Accidents involving contractors' trucks and equipment as well as third party haulage trucks by type and • degree of severity 		<p>stations</p>		
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APPENDICES

Appendix 1a. Environmental and Social Screening Form

Project Name and P-code	
Name of person undertaking the screening:	
Designation:	
Address (Email, Phone number)	
Have you visited the proposed site as part of the screening process? (Yes, No, Not Applicable)	
If yes, Date of site visit	

A. Description of Activity

Nature of Activity	e.g Deployment of a 158 km marine branch to connect Sierra Leone to a second submarine cable, and construction of terrestrial infrastructure (Beach Manhole, Cable Landing Station, associated facilities) at Sussex.
State the Duration of activity:	
Describe the Scope of Activity:	
State the Region where the activity will be implemented:	
State the provinces, districts, and chiefdoms where the activity will be implemented:	
Estimated Cost:	
Proposed Date of Commencement of work:	
Expected Completion of Work:	
Indicate if Technical Drawing is required:	

B. Site Characteristics [complete this section if applicable]

No.	Site Characteristics	
1	Adjoining Land Uses or Land Cover	
2	South	
3	North	
4	East	
5	West	
6	Proximity to a natural habitat e.g. wetland, river/stream, wetlands, forest reserves, protected areas, MPA etc.	
7	Proximity a residence or any community resource or facility	
8	Proximity to a road	
9	Are there outstanding land disputes within the area?	

10	What is the status of the land holding required by the project (customary, lease, community lands, public etc.)?	
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Sensitive Environmental Features

Feature	Yes/No	Description/Distance from Site
Coastal habitats (mangroves, wetlands)		
Marine Protected Areas (MPA)		
Endangered species habitat		
Coral reefs, benthic habitats		
Water bodies (rivers, ocean)		
Erosion-prone areas		
Other (specify)		

C. Risks Identification

If implemented, would the activity Potentially	Yes	No	If Yes, give a brief description	If Yes indicate frequency of occurrence			
				<i>Very Rarely</i>	<i>Rarely</i>	<i>Occasionally</i>	<i>Very Frequently</i>
<i>Air Quality and Noise</i>							
Cause air pollution? 1. generation of dust 2. generation of smoke 3. generate fumes? 4. generate emissions 5. Create objectionable odor affecting people?							
Expose workers or the public to substantial air pollution?							
Cause noise pollution							
Expose persons to excessive vibration and noise?							
<i>Biological Resources and Natural Resources</i>							
Occur in legally protected/nature reserve or Environmentally Sensitive Areas or a legally defined buffer zone; (forest reserves, national parks, Ramsar sites and wetlands, wildlife habitat areas, steep slopes, riparian areas, upland forests, vulnerable aquifers, biosphere reserves, World Heritage Sites, prime agricultural lands?							

If implemented, would the activity Potentially	Yes	No	If Yes, give a brief description	If Yes indicate frequency of occurrence			
Be located within 100m from a protected/nature reserve or Environmentally Sensitive Areas?							
Have effect on neighbouring protected/nature reserve or Environmentally Sensitive Areas (forest reserves, national parks, Ramsar sites and wetlands, wildlife habitat areas, steep slopes, riparian areas, upland forests, vulnerable aquifers and prime agricultural lands)?							
Have effect on flora (vegetation or plants)?							
Have effect on fauna (animals, wildlife)?							
Interfere with the movement of any wildlife species or organisms?							
Lead to the clearing of forestlands and woodlands?							
Cause disturbance in Natural habitats?							
Lead to modification of natural habitats?							
Drain wetlands, or be sited on floodplains?							
Lead to road construction or rehabilitation, or otherwise facilitate access to fragile areas (natural woodlands, wetlands, erosion-prone areas)?							
Cause disruption of wildlife migratory routes?							
Harvest wetland plant materials or utilize sediments of bodies of water?							
Involve the harvesting of timber resources?							
Involve the harvesting of non-timber resources?							
Lead to increased hunting or the collection of animals or plant materials?							
Increase the risks to endangered or threatened species?							
Accelerate erosion by water or wind?							
Reduce soil fertility and/or permeability?							
Involve removing renewable natural resources such as forest products?							
Involve the extraction of non-renewable natural resources?							

If implemented, would the activity Potentially	Yes	No	If Yes, give a brief description	If Yes indicate frequency of occurrence			
Affect dry season grazing areas and/or lead to restricted access to a common resource?							
Water Quality and Hydrology							
Occur within 100m distance from the nearest water body or drainage channel?							
Involve water extraction or abstraction from rivers, lakes, groundwater							
Have effect on potable water supplies to communities?							
Potentially contaminate surface water and groundwater supplies? <ul style="list-style-type: none"> • by generating liquid waste? • by generating liquid with human or animal waste? • by generating liquid with pH outside 6-9 range? • by generating liquid with an oily substance? • by generating liquid with a chemical substance? • by generating liquid with odor/smell? 							
Lead to changes in the drainage pattern of the area, resulting in erosion or siltation?							
Lead to increase in surface run-off, which could result in flooding on or off-site?							
Increase runoff, which could exceed the capacity of existing stormwater drainage?							
Increase potential for flooding?							
Potentially pollute or contaminate surface water?							
Potentially pollute or contaminate groundwater resources?							
Affect existing stream flow, reduce seasonal availability of water resources?							
Hazardous Waste and Materials - Will the activity							
Lead to the generation of hazardous waste such as: <ul style="list-style-type: none"> • Solvent-based paints, • Pesticides and other garden chemicals, Batteries (for example car, mobile phone or regular household batteries) 							

If implemented, would the activity Potentially	Yes	No	If Yes, give a brief description	If Yes indicate frequency of occurrence			
<ul style="list-style-type: none"> • Motor oils (Petrol, kerosene, lubricants for vehicles), • Cleaning and polishing chemicals, Pharmaceuticals (all medicines), • Electronic waste (unwanted computer equipment – monitors, keyboards, laptops, CD, disc drives, phones, batteries, solar panels, meters, Laser and printer inkjet cartridges, fluorescent tubes and compact fluorescent globes (CFLs)) • Medical waste? 							
Lead to the transportation of hazardous waste.							
Lead to the recycling of hazardous waste.							
Lead to the storage and disposal of hazardous waste?							
Lead to the generation of Hazardous industrial waste (HIW)? HIW includes used oils, solvents, paint, batteries, soiled packaging, aerosols, cosmetics, pharmaceuticals, phytosanitary products, industrial sludge.							
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement							
Require changes to existing land tenure system?							
Require acquisition of land (public or private, temporarily, or permanently) for its development?							
Potentially cause or aggravate land-use conflicts?							
Restrict land rights or land use rights?							
Restrict access to natural resources that cause a community or groups within a community to lose access to resource usage where they have traditional or customary tenure, or recognizable usage rights?							
Lead to the physical displacement. <i>Physical displacement occurs when individuals or communities are fully or partially no longer able to occupy an area and must relocate to a new location due to project activity.</i>							
Lead to economic displacement. <i>Economic displacement occurs when individuals or communities are fully or partially restricted in their access to</i>							

If implemented, would the activity Potentially	Yes	No	If Yes, give a brief description	If Yes indicate frequency of occurrence			
<i>land or resources that are important to their livelihoods and economic well-being</i>							
Cause a disruption on Power or other utility supply?							
Affect livelihood opportunities of people?							
Labor Issues							
Involve the use of direct workers? <i>Direct workers are people employed or engaged directly by the Borrower (including the project proponent and the project implementing agencies) to work specifically in relation to the project.</i>							
Involve the use of community workers? <i>Community workers are people employed or engaged in providing community labour.</i>							
Involve the use of contracted workers? <i>contracted workers are people employed or engaged through third parties to perform work related to core functions of the project, regardless of the location.</i>							
Involve the use of primary supply workers? <i>Primary supply workers are people employed or engaged by the Borrower's primary suppliers.</i>							
Involve the use of Children?							
Cause the exclusion of vulnerable groups , poor, persons with disabilities, youth,women, men from Project benefits? Cause the exclusion of vulnerable groups, poor, persons with disabilities, youth,women, men from Project resettlement operations?							
Cultural Heritage							
Involve excavations, demolition, movement of earth, flooding or other changes in the physical environment?							
Be located in, or in the vicinity of, a recognized cultural heritage site?							

If implemented, would the activity Potentially	Yes	No	If Yes, give a brief description	If Yes indicate frequency of occurrence			
Affect culturally important sites in the community such as sacred areas, burial grounds or cemeteries?							
Affect religious sites shrines, temples, mosques, churches?							
Affect any archaeological or historical site?							
Community Health and Safety							
<p>Lead to labour influx. <i>Labour influx consists of the rapid migration to and settlement of workers in the project area, typically in circumstances where labour/skills and goods and services required for a project are not available locally. Projects also stimulate speculative influx (“followers”), including those seeking employment or enterprises hoping to sell goods and services to the temporary project workforce, as well as “associates” who often follow the first two groups to exploit opportunities for criminal or illicit behaviour (e.g. prostitution and crime).</i></p>							
Create conditions that can lead to community health problems such as community exposure to health risks and vector-borne diseases, communicable diseases, injuries, nutritional disorders, HIV/AIDS and infectious diseases?							
Lead to increased road traffic, vehicles or fleets of vehicles for the purposes of the activity?							
Involve the use of Security personnel?							
Lead to increased GBV and SEA risks?							
Other Areas							
Production or use in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements, or subject to international bans, such as pharmaceuticals, pesticides/herbicides, ozone depleting substances, PCB's, wildlife or products regulated under CITES.							
Production or use in weapons and munitions.							
Production or use in alcoholic beverages (excluding beer and wine).							

If implemented, would the activity Potentially	Yes		No		If Yes indicate frequency of occurrence			
	Yes	No	If Yes, give a brief description					
Production or trade in tobacco								
Gambling, casinos and equivalent enterprises.								
Production or trade in radioactive materials.								
Production or use of unbonded asbestos fibres.								

D. Risks Classification

Based on the risks identified in section C the risks areas should be categorized as Low Risk, Moderate Risk, Substantial Risk or High Risk:

Risk areas	Low Risk (Risk that can impact on a small scale)	Moderate Risk (Risk that can cause an impact but not a serious one)	Substantial Risk	High Risk (Risks that can cause result in huge impact)
<i>Air Quality and Noise</i>				
<i>Biological Resources and Natural Resources</i>				
<i>Water Quality and Hydrology</i>				
<i>Agricultural and Forestry Production</i>				
<i>Hazardous Waste and Materials</i>				
<i>Land Acquisition, Restrictions on Land Use and Involuntary Resettlement</i>				
<i>Socio-economic, Livelihood and Labour</i>				
<i>Social Inclusion</i>				
<i>Community Health and Safety</i>				

Overall proposed activity risk classification:

E. Recommendations for Instruments to be prepared

Recommendation:	Tick as appropriate	Justification
No further instrument required		
Requires the preparation of:		
Environmental and Social Impact Assessment (ESIA)		
Environmental and Social Management Plan (ESMP)		
Resettlement Action plan (RP \)		
Environmental and Social Audit		
Hazard or Risk Assessment		
Social and Conflict Analysis		
Cultural Heritage Management Plan		
Biodiversity Management Plan (BMP)		

F. National Requirements

No.	If implemented, would the activity require permit or approval from the following national regulatory agencies?	Yes	No	Justification
1	Environmental Protection Agency			
2	Forestry Division			
3	National Water Resources Management Authority			
4	Sierra Leone Standards Bureau			
5	National Telecommunications Commission			
6	Ministry of Health and Sanitation			
7	Municipal and District Councils			

G. Clearance

Approval's	
Name:	
Signature:	
Date:	

Appendix 1b: Exclusion List

- Support of production of any hazardous good, including alcohol, tobacco, and controlled substances
- Any construction in protected areas or priority areas for biodiversity conservation, as defined in national law
- Activities that have the potential to cause any significant loss or degradation of critical natural habitats, whether directly or indirectly, or which would lead to adverse impacts on natural habitats.
- Activities that involve extensive harvest and sale/trade of forest resources (post, timber, bamboo, charcoal, wildlife, etc.) for large-scale commercial purposes
- Activities involving changing forestland into agricultural land or logging activities in primary forest.
- Purchase or use of banned/restricted pesticides, insecticides, herbicides, and other dangerous chemicals (banned under national law and World Health Organization (WHO) category 1A and 1B pesticides)
- Construction of any new dams or rehabilitation of existing dams including structural and or operational changes; or irrigation or water supply subprojects that will depend on the storage and operation of an existing dam, or a dam under construction for the supply of water.
- Activities that involve the use of international waterways
- Any activity affecting physical cultural heritage such as graves, temples, churches, historical relics, archeological sites, or other cultural structures.
- Activities that may cause or lead to forced labor or child abuse, child labor exploitation or human trafficking, or subprojects that employ or engage children, over the minimum age of 14 and under the age of 18, in connection with the project in a manner that is likely to be hazardous or interfere with the child's education or be harmful to the child's health or physical, mental, spiritual, moral, or social development.
- Any activity on land that has disputed ownership or tenure Any activity that will cause physical relocation of households or will require the use of eminent domain.
- Any activity with significant environmental and social risks and impacts that require an Environmental and Social Impact Assessment (ESIA)
- Any activity that will require Free, Prior and Informed Consent (FPIC) as defined in ESS7.

Appendix 2: ESIA Report Template

To be prepared for submarine cable installation, landing stations, and during implementation as needed for other subprojects with potential environmental and social risks. These assessments will evaluate potential risks and impacts and prescribe mitigation measures.

Chapter Heading	Content Outline
Executive Summary	Concisely discusses project overview, key risks significant findings and recommended actions
Chapter One: Introduction/Background	<ul style="list-style-type: none"> • Project Overview • Justification for the Study • Study Objective • Scope of Work • The Proponent <ul style="list-style-type: none"> - MoCTI PCU • Report Structure
Chapter Two: Policy, Legal and Regulatory Framework	<ul style="list-style-type: none"> • National Policies • Legislation • Regional and International Conventions to which Sierra Leone is Party • World Bank’s Environmental and Social Framework (ESF) <ul style="list-style-type: none"> - The World Bank Group Environmental Health and Safety (EHS) Guidelines. <ul style="list-style-type: none"> • Comparative matrix between national laws and the WB ESF, identify gaps and propose measures to address them • Institutional Framework for E&S; any permitting and approval processes required for the project.
Chapter Three: Sub-Project Description	<ul style="list-style-type: none"> • Brief summary of the sub-project overview <p>Project Description by community:</p> <ul style="list-style-type: none"> • Geographical location with maps and coordinates • Project activities to be financed and scale and scope • Details of site layout, access etc
Chapter Four: Environmental and Social Baseline Data	<p>Desk review findings</p> <p>Environmental Baseline Condition:</p> <ul style="list-style-type: none"> • Environmental Baseline <ul style="list-style-type: none"> - Climate and Meteorology - Geology - Topography - Soil - land use - Air quality - Water resources and Hydrological conditions - Biodiversity - Existing infrastructure; utilities (power, water supply, waste management etc)

- Noise
- Cultural and historical sites

Social Baseline

- Demographics
- Health
- Education
- Livelihoods
- Accessibility and access to services
- Social issues
- GBV issues
- Land ownership etc

Methodology shall be presented in the Appendix)

In case there are areas of high environmental sensitivity, include an and Vulnerability Analysis

Chapter Five: Stakeholder Engagement

- Stakeholder Identification
- Stakeholder Engagement Plan
 - Scoping Phase – Sensitization Stakeholder Engagement
 - Stakeholder Engagement during Baseline Data Gathering Documentation of Consultation Outcomes; feedback, concerns raised etc and any recommendations from the consultations which can be included in ESMP

Chapter Six: Analysis of Alternatives

- Project Alternatives
- Comparison of Alternatives (location, design, technology, costs etc)
- Evaluation matrix and preferred option

Chapter Seven: Potential Environmental and Social Risks and Impact

- Impact Evaluation Methodology
- Potential Impacts associated with project funded activities - positive or negative; direct or indirect, cumulative; associated; short-term; long term; residual; reversible/mitigatable or irreversible on
 - Env: Air, Water and Soil quality; Noise impacts; Land Use; impacts on biodiversity; green cover; materials management; waste management; any tangible cultural heritage; occupational health and safety;
 - Social: limitations of access; disruption of utilities; life and fire safety; community health and safety; social issues; GBV; conflict; gender and vulnerable groups; impact on intangible cultural heritage; resettlement or land acquisition (make reference to RP)
- Impacts shall be divided by pre-Construction; Construction; Post-Construction phases and Decommissioning Phase (only if applicable)
- Impact severity matrix
- Environmental and Social Risks and Impact and Mitigation Matrix (existing Plans such as LMP, GRM and GBV Action Plan are referred to in this matrix)

Chapter Eight: Environmental and Social Management Plan

- Institutional Arrangements
 - Project Management Responsibilities
 - Project Implementation Unit

- Construction Supervision Consultant
- Contractor Responsibilities
- Impact Mitigation and Management Measures
 - Mitigation Matrix which includes mitigation measures; timelines; roles and responsibilities and detailed estimated costs
- Monitoring and Reporting Protocols (this will include any environmental monitoring testing requirements)
- Training and Capacity Building
- Budget for implementation of the ESMP (this will build on estimated cost of contractor ESMP; licenses, clearances, sample testing monitoring etc)
- Gender Action Plan
- Grievance_Redress Mechanism

The ESIA will include templates for the following plans (these templates will provide guidance for the Contractors to develop Contractor ESMPs)

- Solid and Hazardous Waste Management Plan
- Stakeholder Engagement Plan
- Labour Management Plan
- Camp Management Plan
- Traffic Management Plan
- Occupational Health and Safety
- Emergency Response Plan
- Incident reporting guidelines

Appendices

Include supporting documents such as data tables, maps, and technical reports, methodology for sampling etc, Sample Management Plan

Annex 1: ESIA Terms of Reference

Annex 2: ESIA Report Outline

Annex 3: Stakeholder Identification and Analysis

Annex 4: Stakeholder Engagement Attendance Record

Annex 5: General Environmental and Social Management Conditions for Construction Contracts

Annex 6: Project Occupational Health and Safety (OHS) Plan

Annex 7: Company Code Of Conduct Preventing Gender Based Violence And Violence Against Children

Annex 8: Manager’s Code of Conduct on Preventing Gender Based Violence and Violence Against Children

Annex 9: Individual Code of Conduct Preventing Gender Based Violence and Violence Against Children

Annex 10: Waste Management Plan

Annex 12: Grievance Uptake Channels Information Sheet

Annex 13: Laboratory Data Statement of Result

Annex 14: Air Quality and Noise Monitoring

Annex 15: Environmental and Social Technical Clauses (ESTCs)

Appendix 3. Environmental and Social Code of Practices (ESCOP)

1. Objectives

This Environmental and Social Codes of Practice (ESCOP) is prepared to manage small environmental impacts during construction. The ESCOPs will apply to manage small-scale infrastructure investments which develop and support the project. ESCOP will be a mandatory part of the construction contract or bidding documents so that the contractor complies with environmental covenants. The MoCTI PCU and construction supervisors will be responsible for monitoring compliance with ESCOP and preparing the required reports.

2. Responsibilities

The MoCTI PCU and Contractors are the key entities responsible for implementation of this ESCOP. Key responsibilities of the PIU and the contractors are as follows:

(a) The MoCTI PIU

- The MoCTI PCU are responsible for ensuring that the ESCOP is effectively implemented. The MoCTI PCU will assign a qualified staff to be responsible for checking implementation compliance of Contractors, include the following: (a) monitoring the contractors' compliance with the environmental plan, (b) taking remedial actions in the event of non-compliance and/or adverse impacts occur, (c) investigating complaints, evaluating and identifying corrective measures; (d) advising the Contractor on environment improvement, awareness, proactive pollution prevention measures; and (e) monitoring the activities of Contractors on replying to complaints.

(b) Contractor

- The contractor is responsible for carrying out civil works and informs MoCTI PCU local authority and community about construction plans and risks associated with civil works. As such, the contractor is responsible for implementing agreed measures to mitigate environmental risks associated with its civil work.
- Contractors are required to obey other national relevant legal regulations and laws.

Part 1 – Contractor's Responsibilities

This is an example and is not necessarily a full treatment of all requirements for a specific project. For example, there might be reasons to have contractors deal with STDs, medical and hazardous waste (e.g, oil from vehicle or furnace repair and similar, oily rags).

Issue	Environmental and Social Prevention and Mitigation Measures
Contractor Awareness of E&S Risk Management	<ul style="list-style-type: none"> All contractors will be responsible for conducting their work activities in consideration of these ESCOPs. Failure to do so could result in penalties or dismissal.
Pre-Construction	
Initial Checklist	<ul style="list-style-type: none"> That these ESCOPs have been reviewed by management and all workers. Ensure all workers have appropriate PPE and are trained on potential health and safety risks related to their work. Workers have signed the worker code of conduct. Workers fully understand all prohibitions (e.g. illegal dumping of demolition material, use of alcohol by workers, etc.). Consultation has been completed with the nearby community in regard to construction works and duration (working hours) or providing public information and site access. All emergency procedures are developed, and workers are well informed.
Site Clearing	<ul style="list-style-type: none"> All vegetation must be stripped from the area of construction. This has to be done very carefully. The valuable or reusable materials from the demolished construction should be kept as property of the health facility (health center or referral hospital) and should be stored in the storage area provided. The Contractor shall dispose of all construction materials/rubbish from the demolition/construction away from the hospital property.
Set out of Works	<ul style="list-style-type: none"> The Contractor shall set out the location of the works and clearly mark the location of corners with timber pegs. Offset pegs shall also be located at one-meter offsets so that all corner points can be located again after excavation of soil for the correct construction of footings.
Construction	
Construction Activities	<ul style="list-style-type: none"> When conducting construction activities, including any destruction, the Contractor shall consider the following measures: Prepare a management plan as to how to avoid or minimize environmental and social impact during construction activities. Maintain an adequate unoccupied buffer zone around the work areas to allow for construction traffic. Ensure proper signage is in place alerting residents and the public to any construction related risk. Post warning signs on barricades, construction zones, and other areas limiting access to authorized personnel only. Implement adequate measures during demolition of existing infrastructure to protect workers and the public from falling debris and flying objects. Isolate work areas from occupied areas using physical barriers, negative pressurization of the construction or renovation area relative to occupied areas, and use HEPA or other filtration, where possible, to remove particulates. Bag all construction debris and set aside designated and restricted waste drop or discharge zones for safe movement of wastes. Conduct sawing, cutting, grinding, sanding, chipping or chiseling with proper guards and anchoring as applicable.

- Use of temporary fall protection measures in scaffolds and on edges of elevated work surfaces, such as handrails and toe boards to prevent materials from being dislodged.
 - Provide all workers with safety glasses with side shields, face shields, hard hats, and safety shoes.
 - Hearing protection should be provided where excessive noise levels are present.
 - The Project Engineer will supervise compliance with these ESCOP specifications.
 - Major non-compliance of these ESCOPs by the Contractor will be cause for suspension of works and other penalties until the non-compliance has been resolved to the satisfaction of the Project Engineer. Contractors are also required to comply with national and municipal regulations governing the environment, public health, and safety.
- Supervision during construction
- Use work practices and materials that result in little or no generations of airborne contaminants during construction or renovation activities, such as wet methods to suppress dust generation as well as paint and carpeting with low volatile organic compound emissions.
 - For indoor dust control, the Contractor may use air filters, purifiers, or vacuums.
 - Avoid burning or incineration of construction waste materials outside of the building.
 - Keep outdoor stockpile of aggregate/sand materials covered to avoid suspension or dispersal of fine soil particles during windy days or disturbance from stray animals.
 - Reduce the operation hours of generators /machines /equipment /vehicles as much as possible.
 - Undertake regular maintenance of generators, machinery and equipment and vehicles.
 - Control vehicle speed when driving through community are as so that dust dispersion from vehicle transport is minimized.
- Dust Generation / Air Quality
- Activities should not affect the availability of water for drinking and hygienic purposes.
 - No soiling materials, solid waste, toxic or hazardous materials should be poured or thrown into water bodies for dilution or disposal.
 - Provide toilets with a temporary septic tank at the construction site. The flow of natural waters should not be obstructed or diverted to another direction, which may lead to drying up of riverbeds or flooding of settlements.
- Water Quality and Availability
- Keep concrete mixing separate from any drainages leading to waterways.
 - Plan activities in consultation with people living in the immediate vicinity so that noisiest activities are undertaken during periods that will result in least disturbance.
 - Use noise-control methods such as fences, barriers, etc.
 - Maintain a buffer zone (such as open spaces, rows of trees or vegetated areas) between the project site and residential areas to lessen the impact of noise to the living quarters.
- Noise
- Avoid doing construction work at night-time.
 - Disturb as little ground area as possible, stabilize that area as quickly as possible, control drainage through the area, and trap sediment onsite.
 - Erect erosion control barriers around perimeter of cuts, disposal pits, and roadways.
- Soil Erosion

- Construction Waste
 - Schedule construction activities during dry season as much as possible.
 - Segregate construction waste as recyclable, hazardous and non-hazardous waste.
 - Collect, store and transport construction waste to appropriately designated/ controlled dump sites.
 - Enforce daily site clean-up and housekeeping procedures, including maintenance of adequate disposal facilities for construction debris.
 - On-site storage of waste prior to final disposal should be at least 50 meters from rivers, streams, lakes and wetlands.
 - After each construction site is decommissioned, all debris and waste shall be cleared and recycled or disposed of in an approved location.
- Hazardous Waste
 - Prior to initiation of renovation activities, a hazardous waste management plan/asbestos management plan should be conducted to assess the presence of asbestos, mold, lead, mercury, and other potential contaminants that will need to be removed or isolated.
 - Collect and properly dispose of small amount of maintenance materials such as oily rags, oil filters, used oil, etc.
 - Never dispose of spent oils on the ground and in water courses as it can contaminate soil and groundwater (including drinking water aquifer).
- Storage of Fuels and Chemicals
 - Store fuels, oils and chemicals safely in areas on an impermeable surface with berms to contain 110% of the maximum volume of the storage tank.
 - Train workers on correct transfer and handling of fuels and other substances and require the use of gloves, boots, aprons, eyewear, hearing protection, and other protective equipment for protection in handling highly hazardous materials.
 - Have adequate spill kits readily available and clearly labelled on the work site and train workers in their use, application and spill clean-up procedures.
- Occupational Health and Safety
 - Contractors shall conduct site specific OHS risk assessments based on OHS management plans in line with the local legal requirements and WBG EHS guidelines.
 - Set up the construction site with sufficient supplies of clean drinking water, power, and sanitation facilities.
 - Mandate the use of personal protective equipment for workers as necessary (gloves, dust masks, hard hats, boots, goggles, eye, and hearing protection).
 - Follow the below measures for construction involving work at height (e.g. 2 meters above ground).
 - Do as much work as possible from the ground.
 - Only allow people with sufficient skills, knowledge, and experience to perform the construction activity.
 - Ensure that proper training and equipment for working at heights is provided.
 - Checking that the place where work at height is to be undertaken is safe.
 - Where possible provide fall-protection measures e.g., safety harness, simple scaffolding/guard rail for works over 4 meters from ground.
 - Take precautions when working near fragile surfaces.
 - Clean up oil, grease, paint, and dirt immediately to prevent slipping and possible injury.
 - Keep the site clean and free of debris daily.

- Provide an on-site first aid kit with bandages, alcohol or non-alcohol antiseptic wipes, dressings, etc. at the construction site.
- Keep corrosive fluids and other toxic materials in properly sealed containers for collection and disposal in properly secured areas.
- Ensure structural openings are covered/protected adequately. Secure loose or light material that is stored on roofs or open floors. During heavy rains or emergencies of any kind, suspend all work.
- Apply good electricity practices such as the use of safe extension cords, voltage regulators and circuit breakers, labels on electrical wiring for safety measures, awareness on identifying burning smell from wires, etc. at construction sites and provision of voltage detectors, multi-meters and receptacle testers as necessary.
- Ensure adequate toilet facilities for workers, at least one toilet compartment for every 25 workers, with separate facilities for males and females.
- Make sure workers are aware of GRM and can access it.
- As needed, necessary PPE equipment to prevent COVID transmission, hand sanitizer, physical distancing, etc. as per current government directives.

Incident Reporting

The borrower is responsible for incident investigation

- Investigation should start as soon as possible as information, evidence and data are fresh
- The borrower/MoCTI PCU should quickly agree who is best placed to investigate, as well as the scope of the investigation (lead investigator should be competent)
- The Task Team should provide advice, but Borrower/ MoCTI PCU is ultimately responsible for conducting the investigation
- Local regulatory framework may require a regulatory authority to conduct an incident (e.g. police investigation, OSHA/Labor department)
- Regulatory investigation focuses on legal compliance (i.e. who is at fault) and may not include root causes (adequacy or lack of safeguards) in projects
- Borrower/ MoCTI PCU needs to conduct internal investigation/review of their safeguards and risk management
- Corrective actions with clearly defined timelines and people responsible for implementation.
- Recommendations for further improvement.

Community Health and Safety

- Rope off construction area and secure materials stockpiles/ storage areas from the public and display warning signs including at unsafe locations.
- Do not allow children to play in and around construction areas.
- If school children are in the vicinity, include traffic safety personnel to direct traffic during school hours, if needed.
- Control the driving speed of vehicles particularly when passing through community or nearby school, health center or other sensitive areas.
- Fill in all earth borrow-pits once construction is completed to avoid standing water, water-borne diseases and possible drowning.
- Avoid occurring labor influx around construction sites.
- Avoid working at night.
- Recommend hiring construction workers from nearby communities.

- Inform communities on the sexual exploitation and abuse (SEA), sexual harassment (SH), gender-based violence (GBV), and violence against children (VAC) policies.
 - Make sure that the community is aware of GRM and can access it.
 - Implementation of COVID-19 prevention measures following government directives.
 - Wherever possible hire workers from the local community and encourage hiring of women, the poor, people with disabilities, and/or other vulnerable persons.
 - Ensure equal pay for the same job for both men and women.
 - Ensure the minimum working age of 18 years.
 - No child (under 18 years) or forced labor to be hired for the project.
 - Train local workers within a reasonable time frame to meet project requirements. Costs for training will be borne by contractors.
 - Avoid and when avoidance is not possible, minimize and manage labor influx.
 - Prepare the Code of Conduct (CoC), inform and train workers in the CoC and ensure it is signed by all workers (See Appendix 19 Sample CoC for Contractor staff).
 - Implement sexual exploitation and abuse (SEA), sexual harassment (SH), gender-based violence (GBV), and violence against children (VAC) training.
- Labor and hiring
- Provide adequate lavatory facilities for men and women at the worksite (toilets and washing areas) for the expected number of workers. Toilet facilities should also be provided with adequate supplies of hot and cold running water, soap, and hand drying devices.
 - Where needed, install, and maintain a temporary septic tank system for the collection of sanitary waste without causing pollution of nearby watercourses.
 - Establish a method and system for storing and disposing of all solid waste generated at the work site.
 - Do not allow the use of wood fuel for cooking or heating in any cooking or kitchen facilities and provide alternate fuels.
 - Ensure that site offices, depots, asphalt plants and workshops are located in appropriate areas as approved by the Project Engineer and not within 500 meters of existing residential settlements.
 - Ensure that site offices, depots and particularly storage areas for diesel fuel and bitumen and asphalt plants are not located within 500 meters of watercourses, and are operated so that no pollutants enter watercourses, either overland or through groundwater seepage, especially during periods of rain. Require lubricants to be recycled and a ditch to be constructed around the refueling area with an approved settling pond/oil trap at the outlet.
 - As needed, necessary PPE equipment to prevent COVID transmission, hand sanitizer, physical distancing, etc. as per current government directives.
- Workforce and Camps
- Responsible local authorities and the National Culture Administration will oversee protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by the archaeologists Ministry of Tourism and Cultural Affairs (MTCA), Monuments and Relics Commission. The significance and importance of the findings
- Cultural Heritage

should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific or research, social and economic values.

- Decisions on how to handle the findings shall be taken by the responsible authorities and Ministry of Tourism and Cultural Affairs (MTCA), Monuments and Relics Commission. This could include changes in the layout (such as when finding an irremovable remain of cultural or archaeological importance) conservation, preservation, restoration and salvage.
 - Implementation for the authority decision concerning the management of the finding shall be communicated in writing by relevant local authorities; and
 - Construction work could resume only after permission is given from the local authorities responsible or Ministry of Tourism and Cultural Affairs (MTCA), Monuments and Relics Commission concerning safeguarding of the heritage.
- Prohibitions
- The following activities are prohibited on the construction site:
 - Cutting of trees for any reason outside the approved construction area.
 - Hunting, fishing, wildlife capture, or plant collection.
 - Use of unapproved toxic materials, including lead-based paints, asbestos, etc.
 - Disturbance to anything with architectural or historical value.
 - Building of fires.
 - Use of firearms (except authorized security guards, if any).
 - Use of alcohol or drugs by workers.
- Post-Construction**
Site Decommissioning
- The contractor will clean the site carefully and remove all construction waste materials and dump it at a designated dumping site.
 - Open burning of waste should not be encouraged.

Part 2 – Contractor’s Workers Environmental Code of Conducts

Do:

- Use The Toilet Facilities Provided – Report Dirty or Full Facilities
- Clear Your Work Areas of Litter and Building Rubbish at The End Of
- Each Day – Use the Waste Bins Provided and Ensure That Litter Will Not Blow Away.
- Report All Fuel or Oil Spills Immediately & Stop the Spill from Continuing.
- Smoke In Designated Areas Only and Dispose of Cigarettes And Matches Carefully. (Littering Is an Offence.)
- Confine Work and Storage of Equipment to Within the Immediate Work Area.
- Use All Safety Equipment and Comply with All Safety Procedures.
- Prevent Contamination or Pollution of Streams and Water Channels.
- Ensure A Working Fire Extinguisher

Do Not

- Remove Or Damage Vegetation Without Direct Instruction.
- Make Any Fires.
- Poach, Injure, Trap, Feed or Harm Any Animals – This Includes Birds, Frogs, Snakes, Etc.
- Enter Any Fenced Off or Marked Area.
- Drive Recklessly or Above Speed Limit
- Allow Waste, Litter, Oils or Foreign Materials into The Stream
- Litter Or Leave Food Lying Around.
- Cut Trees for Any Reason Outside the Approved Construction Area
- Buy Any Wild Animals for Food.
- Use Unapproved Toxic Materials, Including Lead-Based Paints, Asbestos, Etc.
- Disturb Anything with Architectural or Historical Value

- Is Immediately at Hand If Any “Hot
- Work” Is Undertaken E.G. Welding, Grinding, Gas Cutting Etc.
- Report Any Injury of Workers or Animals.
- Drive On Designated Routes Only.
- Prevent Excessive Dust and Noise
- Use Of Firearms (Except Authorized Security Guards)
- Use Of Alcohol by Workers During Work Hours
- Wash Cars or Machinery in Streams or Creek
- Do Any Maintenance (Change of Oils and Filters) Of Cars and Equipment Outside Authorized Areas
- Dispose of Trash in Unauthorized Places
- Have Caged Wild Animals (Especially Birds) In Camps
- Work Without Safety Equipment (Including Boots and Helmets)
- Creating Nuisances and Disturbances in Or Near Communities
- Use Rivers and Streams for Washing Clothes
- Dispose Indiscriminately of Rubbish or Construction Wastes or Rubble
- Spill Potential Pollutants, Such as Petroleum Products
- Collect Firewood
- Explosive And Chemical Fishing
- Use Latrines Outside the Designated Facilities; And
- Burn Wastes And/Or Cleared Vegetation.

Appendix 4. Environmental and Social Management Plan (ESMP) Template

To be prepared during implementation as needed; define detailed mitigation, monitoring, and management measures for identifying impacts from specific subprojects.

Environmental and social risks and impacts are strongly linked to subproject location and scope of activities. This ESMP should be customized for each specific subproject location and activities.

1. Subproject Information

Subproject Title:	
Estimated Cost:	
Start/Completion Date:	

2. Site/Location Description

This section concisely describes the proposed location and its geographic, ecological, social and temporal context including any offsite investments that may be required (e.g., access roads, water supply, etc.). Please attach a map of the location to the ESMP.

3. Subproject Description and Activities

This section lists all the activities that will take place under the subproject, including any associated activities (such as building of access roads or transmission lines, or communication campaigns that accompany service provision).

4. ESMP Matrix: Risk and Impacts, Mitigation, Monitoring

This section should identify anticipated site-specific adverse environmental and social risks and impacts; describe mitigation measures to address these risks and impact; and list the monitoring measures necessary to ensure effective implementation of the mitigation measures. It may draw from the ESMF's pre-identification of potential risks/impacts and mitigation measures, as applicable, and drill down further to ensure relevance and comprehensiveness at the site-specific level. For subprojects involving construction, two sets of tables may be needed, for the construction phase and the operation phase.

Anticipated E&S Risks and Impacts	Risk Mitigation and Management Measures	Impact Mitigation		Impact/Mitigation Monitoring		
		Location/Timing/Frequency	Responsibility	Parameter to be monitored	Methodology, including Location and Frequency	Responsibility

5. Capacity Development and Training

Based on the implementation arrangements and responsible parties proposed above, this section outlines any capacity building, training or new staffing that may be necessary for effective implementation.

6. Implementation Schedule and Cost Estimates

This section states the implementation timeline for the mitigation measures and capacity development measures described above, as well as a cost estimate for the implementation. The cost estimate can focus on the line items that will be covered by the project implementing agency, with costs of mitigation measures to be implemented by the contractor left to the contractor to calculate.

7. Attachments

ESCOPs, site specific SEP etc.

IV. Review and Approval

Prepared By:(Signature)

Position: Date

Reviewed By:(Signature)

Position:Date

Approved By:(Signature)

Position: Date

Appendix 5: Indicative Outline of a Biodiversity Management Plan (BMP)

To be prepared during implementation as needed; provide measures to protect and manage sensitive ecosystems and biodiversity affected by project activities, including marine and coastal habitats.

Executive Summary

- Purpose and scope of the BM
- Summary of key biodiversity risks and mitigation strategies

Introduction

- Project background and rationale
- Description of submarine cable and CLS components
- Objectives of the BMP (e.g., avoid, minimize, mitigate, and offset impacts on biodiversity)

Regulatory and Policy Framework

- Applicable national laws and regulations (Sierra Leone)
- World Bank Environmental and Social Standard 6 (ESS6)
- International conventions (e.g., Convention on Biological Diversity)
- Other relevant standards and guidelines

Project Description

- Overview of submarine cable route (marine and terrestrial segments)
- Description of cable landing station and associated infrastructure
- Construction and operational activities with potential biodiversity impacts

Baseline Biodiversity Assessment

- Methodology for baseline surveys (marine and terrestrial)
- Description of habitats (e.g., seagrass meadows, coral reefs, mangroves, beaches)
- Key species present (e.g., sea turtles, fish, benthic fauna, birds)
- Identification of critical, natural, and modified habitats
- Mapping of sensitive areas (e.g., turtle nesting beaches, protected areas)

Risks and Impact Assessment

- Identification and analysis of potential impacts during construction, operation, and decommissioning:
- Seabed disturbance and habitat loss
- Increased turbidity and sedimentation
- Noise and vibration
- Pollution risks (spills, waste)
- Access restriction and disturbance to wildlife
- Risk of invasive species introduction
- Cumulative and indirect impacts
- Assessment of impact magnitude, extent, duration, reversibility, and significance

Mitigation Measures and Management Actions

- Application of the mitigation hierarchy (avoid, minimize, restore, offset)

Marine segment:

- Careful route selection to avoid sensitive habitats
- Timing works to avoid breeding/migration seasons
- Use of low-impact cable laying techniques (e.g., horizontal directional drilling, jetting)
- Real-time monitoring of turbidity and water quality
- Pollution Prevention protocols (MARPOL compliance)
- Monitoring for marine mammals and turtles during works
- Restoration of disturbed habitats (e.g., seagrass replanting)

Terrestrial segment and CLS:

- Avoidance of critical habitats (e.g., turtle nesting beaches)
- Minimization of vegetation clearance
- Control of artificial lighting and noise
- Waste management and spill response
- Restoration of disturbed terrestrial habitats

Biodiversity Monitoring Plan

- Pre-construction, construction, and post-construction monitoring
- Indicators and parameters (e.g., species abundance, habitat condition, water quality)
- Frequency and methods of monitoring (e.g., surveys, remote sensing, water sampling)
- Adaptive management: corrective actions if monitoring shows unexpected impacts

Roles, Responsibilities, and Capacity Building

- Organizational structure for BMP implementation (MoCTI PCU, contractors, biodiversity specialists)
- Roles and responsibilities for monitoring, reporting, and management
- Capacity building and training requirements for staff and contractors

Stakeholder Engagement and Disclosure

- Identification of stakeholders (local communities, fishers, conservation groups, authorities)
- Consultation process and feedback integration
- Information disclosure and grievance redress mechanism

Reporting and Documentation

- Internal and external reporting requirements (monthly, quarterly, annual)
- Field evaluation reports after surveys and monitoring
- Annual biodiversity monitoring and evaluation reports
- Documentation of incidents, corrective actions, and BMP updates

Budget and Resources

- Indicative budget for BMP implementation (surveys, monitoring, restoration, training)
- Allocation of resources and funding sources

Timeline

- Implementation schedule for BMP actions and monitoring
- Review and update procedures (living document, updated as new information becomes available)

Annexes

- Maps of cable route and sensitive habitats
- Baseline survey data and species lists
- Monitoring protocols and templates
- Training materials
- Regulatory permits and approvals

Appendix 6: Components of a Resettlement Plan (RP)

The scope of requirements and level of detail of the resettlement plan vary with the magnitude and complexity of resettlement. The plan is based on up-to-date and reliable information about (a) the proposed project and its potential impacts on the displaced persons and other adversely affected groups, (b) appropriate and feasible mitigation measures, and (c) the legal and institutional arrangements required for effective implementation of resettlement measures.

Minimum Elements of a Resettlement Plan

1. Description of the project. General description of the project and identification of the project area.
2. Potential impacts identification of:
 - (a) The project components or activities that give rise to displacement, explaining why the selected land must be acquired for use within the time frame of the project,
 - (b) The zone of impact of such components or activities
 - (c) The scope and scale of land acquisition and impacts on structures and other fixed assets
 - (d) Any project-imposed restrictions on use of, or access to, land or natural resources
 - (e) Alternatives considered to avoid or minimize displacement and why those were rejected and
 - (f) The mechanisms were established to minimize displacement, to the extent possible, during project implementation.
3. The main objectives of the resettlement program.
4. Census survey and baseline socioeconomic studies. The findings of a household-level census identifying and enumerating affected persons, and, with the involvement of affected persons, surveying land, structures, and other fixed assets to be affected by the project. The census survey also serves other essential functions:
 - (a) Identifying characteristics of displaced households, including a description of production systems, labor, and household organization; and baseline information on livelihoods (including, as relevant, production levels and income derived from both formal and informal economic activities) and standards of living (including health status) of the displaced population
 - (b) Information on vulnerable groups or persons for whom special provisions may have to be made
 - (c) Identifying public or community infrastructure, property or services that may be affected
 - (d) Providing a basis for the design of, and budgeting for, the resettlement program
 - (e) In conjunction with establishment of a cut-off date, providing a basis for excluding ineligible people from compensation and resettlement assistance; and
 - (f) Establishing baseline conditions for monitoring and evaluation purposes.

As the Bank may deem relevant, additional studies on the following subjects may be required to supplement or inform the census survey:

- (g) Land tenure and transfer systems, including an inventory of common property natural resources from which people derive their livelihoods and sustenance, non-title-based user-function systems (including fishing, grazing, or use of forest areas) governed by local recognized land allocation mechanisms, and any issues raised by different tenure systems in the project area
- (h) The patterns of social interaction in the affected communities, including social networks and social support systems, and how they will be affected by the project; and
- (i) Social and cultural characteristics of displaced communities, including a description of formal and informal institutions (e.g., community organizations, ritual groups, nongovernmental

organizations (NGOs)) that may be relevant to the consultation strategy and to designing and implementing the resettlement activities.

5. Legal framework. The findings of an analysis of the legal framework, covering:
 - (a) The scope of the power of compulsory acquisition and imposition of land use restriction and the nature of compensation associated with it, in terms of both the valuation methodology and the timing of payment
 - (b) The applicable legal and administrative procedures, including a description of the remedies available to displaced persons in the judicial process and the normal time frame for such procedures, and any available grievance redress mechanisms that may be relevant to the project
 - (c) Laws and regulations relating to the agencies responsible for implementing resettlement activities; and
 - (d) Gaps, if any, between local laws and practices covering compulsory acquisition, imposition of land use restrictions and provision of resettlement measures and ESS5, and the mechanisms to bridge such gaps.
6. Institutional framework. The findings of an analysis of the institutional framework covering:
 - (a) The identification of agencies responsible for resettlement activities and NGOs/CSOs that may have a role in project implementation, including providing support for displaced persons
 - (b) An assessment of the institutional capacity of such agencies and NGOs/CSOs; and
 - (c) Any steps that are proposed to enhance the institutional capacity of agencies and NGOs/CSOs responsible for resettlement implementation.
7. Eligibility. Definition of displaced persons and criteria for determining their eligibility for compensation and other resettlement assistance, including relevant cut-off dates.
8. Valuation of and compensation for losses. The methodology to be used in valuing losses to determine their replacement cost; and a description of the proposed types and levels of compensation for land, natural resources, and other assets under local law and such supplementary measures as are necessary to achieve replacement cost for them.
9. Community participation. Involvement of displaced persons (including host communities, where relevant):
 - (a) A description of the strategy for consultation with, and participation of, displaced persons in the design and implementation of the resettlement activities
 - (b) A summary of the views expressed and how these views were considered in preparing the resettlement plan
 - (c) A review of the alternatives presented, and the choices made by displaced persons regarding options available to them; and
 - (d) Institutionalized arrangements by which displaced people can communicate their concerns to project authorities throughout planning and implementation, and measures to ensure that such vulnerable groups as Indigenous Peoples, ethnic minorities, the landless, and women are adequately represented.
10. Implementation schedule. An implementation schedule providing anticipated dates for displacement, and estimated initiation and completion dates for all resettlement plan activities. The schedule should indicate how the resettlement activities are linked to the implementation of the overall project.

11. Costs and budget. Tables showing categorized cost estimates for all resettlement activities, including allowances for inflation, population growth, and other contingencies; timetables for expenditures; sources of funds; and arrangements for timely flow of funds, and funding for resettlement, if any, in areas outside the jurisdiction of the implementing agencies.
12. Grievance redress mechanism. The plan describes affordable and accessible procedures for thirdparty settlement of disputes arising from displacement or resettlement; such grievance mechanisms should take into account the availability of judicial recourse and community and traditional dispute settlement mechanisms.
13. Monitoring and evaluation. Arrangements for monitoring of displacement and resettlement activities by the implementing agency, supplemented by third-party monitors as considered appropriate by the Bank, to ensure complete and objective information; performance monitoring indicators to measure inputs, outputs, and outcomes for resettlement activities; involvement of the displaced persons in the monitoring process; evaluation of results for a reasonable period after all resettlement activities have been completed; using the results of resettlement monitoring to guide subsequent implementation.
14. Arrangements for adaptive management. The plan should include provisions for adapting resettlement implementation in response to unanticipated changes in project conditions, or unanticipated obstacles to achieving satisfactory resettlement outcomes.

Appendix 7: Summary of the Intent and Process of Voluntary Land Donation (VLD)

VLD is a process where an individual or community agrees to provide land for project-related activities without compensation. This process is strictly defined and involves several key principles to ensure that the donation is made freely and with full knowledge of the implications. Please take note that these are not yes or no type of documentation, rather an assessment to demonstrate that a systematic process has been followed. Here are the main points:

1. **Informed Consent.** The landowner must be fully informed about the proposed activity, its impacts, land requirements, alternative sites, and their rights to compensation. They must have sufficient time to consider their decision and must knowingly reject the right to renege on their initial decision.
2. **Free Will.** The landowner must be able to refuse the donation. This means there must be viable alternatives available, or the donation must be to their benefit.
3. **Community Participation.** The land to be donated must be identified through a participatory approach involving all residents and users of the land, including disadvantaged groups. Local traditional leaders and relevant government entities must endorse the donation.
4. **Power of Choice.** The individuals involved must have the option to agree or disagree without facing adverse consequences.
5. **Documentation and Verification.** The donation process must be documented and independently verified to ensure that it is undertaken without coercion, manipulation, or pressure. Records of consultation with donors must be verified by an independent third party.
6. **Benefits to Donors.** Potential donors should benefit directly from the project, and the donation should be made for a specified purpose and term. The donor may negotiate for compensation or alternative forms of benefits as a condition for donation.

The principles below are extracted from the Environmental and Social Framework (ESF)

These principles ensure that voluntary land donations are made ethically and transparently, protecting the rights and interests of the landowners. In some circumstances, it may be proposed that part or all the land to be used by the project is donated on a voluntary basis without payment of full compensation. Subject to prior Bank approval, this may be acceptable providing the Borrower demonstrates that:

- (a) the potential donor or donors have been appropriately informed and consulted about the project and the choices available to them
- (b) potential donors are aware that refusal is an option, and have confirmed in writing their willingness to proceed with the donation
- (c) the amount of land being donated is minor and will not reduce the donor's remaining land area below that required to maintain the donor's livelihood at current levels
- (d) no household relocation is involved
- (e) the donor is expected to benefit directly from the project; and
- (f) for community or collective land, donation can only occur with the consent of individuals using or occupying the land.

The Borrower will maintain a transparent record of all consultations and agreements reached.

Voluntary Transaction. This may include situations where a project supports voluntary transactions between communities, governments and investors involving significant areas of land (for example where a project involves support to commercial investment in agricultural land). In such cases, in applying the relevant provisions of this ESS, special care must be taken to ensure:

- (a) that all tenure rights and claims (including those of customary and informal users) affecting the land in question are systematically and impartially identified

- (b) that potentially affected individuals, groups or communities are meaningfully consulted, informed of their rights, and provided reliable information concerning environmental, economic, social and food security impacts of the proposed investment
- (c) that community stakeholders are enabled to negotiate fair value and appropriate conditions for the transfer
- (d) that appropriate compensation, benefit sharing and grievance redress mechanisms are put in place
- (e) that terms and conditions of the transfer are transparent; and
- (f) mechanisms are put in place for monitoring compliance with those terms and conditions.

Appendix 8: Screening Form for Land Acquisition and Resettlement

Name of sub-component: _____

District: _____

County: _____

Name of person completing the form: _____

Position of person completing the form: _____

Section 1:

Is the land to be used for the sub-component owned entirely by the Ministry or by another government agency and is this ownership uncontested?

Yes _____ No _____

If Yes, Skip Section 2. Go directly to Section 3. If No, Proceed to Section 2

Section 2:

Is any of the land owned by individuals or households? Yes _____ No _____

[note: the land does not need to have official ownership deeds, but can be recognized by the community as owned by individuals or households]

If Yes, about how many individuals or households? _____

What is the size of the land area (m2)? _____

Is any of the land considered community property? Yes _____ No _____

If Yes, what is the size of the land area (m2)? _____

If answered 'Yes' to any of the questions in Section 2, please discuss this with Project manager and Social Specialist for next step.

Section 3:

Is anyone living on the land (even if it is not their property)? Yes _____ No _____

If Yes, how many individuals _____ or households _____?

Is anyone using the land for agriculture (even if it is not their property)? Yes _____ No _____

If Yes, how many individuals _____ or households _____?

Is anyone using the land for another non-agricultural type of livelihood? Yes, _____ No _____

If Yes, what type of use? _____ how many individuals _____ or households _____?

Is anyone using the land for any other purpose? Yes, _____ No _____

If Yes, what type of use? _____ how many individuals _____ or households _____?

If answered 'Yes' to any of the questions in Section 3, please discuss this with Project manager and Social Specialist for next step.

Appendix 9: Suggested Outline for Preparation of RP Entitlements Matrix

IMPACT	AFFECTED PERSONS	ELIGIBILITY CRITERIA	ENTITLEMENT IN PRINCIPLE	MITIGATION STANDARDS/MEASURES
[A. Loss of agricultural land - Irrigated land - Rainfed land - Pasture - Groves - Fishpond - Other	Owners	(TBD)	Compensation in kind or at replacement cost	(TBD; usually unit of currency per unit of land)
	Users with legalizable claims	(TBD)	Compensation in kind or at replacement cost	(TBD; usually unit of currency per unit of land)
	Renters/Lessees	(TBD)	Prorated compensation for remainder of term; assistance in finding suitable alternative	(TBD; usually unit of currency per unit of land)
	Other users (squatters, encroachers)	(TBD)	Compensation for improvements; assistance in lieu of land compensation	(TBD)
B. Loss of residential land	Owners	(TBD)	Compensation in kind or at replacement cost	(TBD; usually unit of currency per unit of land)
	Users with legalizable claims	(TBD)	Compensation in kind or at replacement cost	(TBD; usually unit of currency per unit of land)
	Renters/Lessees	(TBD)	Prorated compensation for remainder of term; assistance in finding suitable alternative	(TBD; usually unit of currency per unit of land)
	Other users (squatters, encroachers)	(TBD)	Compensation for improvements; assistance in lieu of land compensation	(TBD)
C. Loss of commercial land	Owners	(TBD)	Compensation at replacement cost, commercial real estate value	(TBD; usually unit of currency per unit of land)
	Users with legalizable claims	(TBD)	Compensation at replacement cost,	(TBD; usually unit of currency per unit of land)
	Renters/Lessees			

	Other users (squatters, encroachers, illegal businesses)	(TBD) (TBD)	commercial real estate value Prorated compensation for remainder of term; assistance in finding suitable alternative Compensation for improvements; assistance in lieu of land compensation	(TBD; usually unit of currency per unit of land) (TBD; usually unit of currency per unit of land)
D. Temporary loss of land	Owners, occupants, users	(TBD)	Compensation for duration of project use; restoration of land to prior condition	(TBD)
E. Loss of agricultural production - crops -fruit/nut trees -timber trees -aquaculture -forest produce -livestock forage -livestock	Producers	(TBD)	Opportunity to bring to market, or compensation at market value at maturity (or compensation at net present value for trees and livestock)	(TBD)
F. Loss of productive fixed assets -irrigation facilities -fencing -wells -troughs -sheds -barns -other	Asset owners/users	(TBD)	Compensation at replacement cost (non- depreciated value including labor and materials)	(TBD)
G. Loss of residential structures (Often categorized by major building material ,fixed improvements, or other features)	Owners	(TBD)	Direct house replacement or compensation at replacement cost (non- depreciated value	(TBD, usually specified as unit of currency per square meter of structure)

	Occupants with legalizable claims	(TBD)	including labor and materials); transitional assistance	(TBD, usually specified as unit of currency per square meter of structure)
	Renters/Lessees	(TBD)	Direct house replacement or compensation at replacement cost (non-depreciated value including labor and materials); transitional assistance	(TBD)
	Illegal structures	(TBD)	Prorated compensation for remainder of term; assistance in finding suitable alternative; transitional assistance	(TBD)
			Direct house replacement or compensation at replacement cost (non-depreciated value including labor and materials); transitional assistance	
H. Loss of commercial structures				
(Often categorized by major building material, function and capacity, fixed improvements, or other features)	Owners	(TBD)	Compensation at replacement cost for structures, fixed equipment and other improvements; transitional assistance	(TBD)
	Occupants with legalizable claims	(TBD)	Compensation at replacement cost for structures, fixed equipment and other improvements; transitional assistance	(TBD)
	Renters/Lessees	(TBD)	Prorated compensation for remainder of term; compensation at replacement cost for fixed equipment and	(TBD)
	Illegal structures	(TBD)		

			other improvements; transitional assistance Compensation at replacement cost for structures, fixed equipment and other improvements; transitional assistance	
I. Loss of agricultural livelihood	Affected agricultural producer	TBD, requires definition of significant impact caused by severity of loss or imposed changes in livelihood methods	In addition to compensation for lost land and assets, persons whose livelihoods are significantly affected receive alternative employment, skills training, business development assistance, or other additional assistance linked to livelihoods restoration or improvement	(TBD)
J. Temporary loss of business income	Owner, enterprise	(TBD)	Payment of support for period of disruption	(TBD, based on prior reported profits or other forms of estimation)
K. Temporary loss of employment or wages	Employees	(TBD)	Payment of wages or unemployment support for period of disruption	(TBD, based on payment records or other forms of estimation)
L. Loss of public or community infrastructure, facilities or services	Public or private owners	(TBD)	Compensation at replacement cost for damage or destruction of infrastructure and facilities; assistance in restoring functionality and accessibility of services	(TBD)
M. Material assistance to vulnerable or disadvantaged	Displaced illegal residents, users or occupants	(TBD)	In addition to applicable forms of compensation and assistance, provision of defined security of tenure Project design provides features relating to safety and accessibility	(TBD)
	Blind or otherwise disabled	(TBD)		(TBD)
	Occupants displaced from	(TBD)		(TBD)]

	substandard housing		Arrangements for obtaining replacement housing meeting minimum legal or community standards	
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Appendix 10: Livelihood Restoration Plan (LRP) Template

Introduction

Proposed Project Description

Installation of submarine cables from a main trunk in the ocean, with a branch point 158 km offshore (marine section). The Beach Manhole (BMH) and Cable Landing Station (CLS) are to be located in Sussex community.

Baseline Assessment

Socioeconomic Survey: Conduct a census of all potentially affected households and businesses, including fishers, fish processors, traders, and other coastal livelihoods.

Livelihood Mapping: Identify and map traditional fishing grounds, landing sites, market routes, and other economic activities (e.g., tourism, small trade).

Vulnerability Assessment: Identify marginalized groups (women, youth, elderly, informal workers) and assess their specific needs and risks

Stakeholder Engagement

Consultation: Engage all affected groups (fishers, traders, women’s groups, youth, local leaders) early and continuously.

Information Disclosure: Provide clear, accessible information on project activities, timelines, and expected impacts.

Grievance Redress Mechanism (GRM): Establish a culturally appropriate, accessible GRM for reporting and resolving complaints related to project impacts

Mitigation Measures

Access and Safety

Advance Notification: Inform local fishers and other users of cable-laying schedules, exclusion zones, and safety protocols. Distribute maps showing safe transit lanes and exclusion areas

Access Management: Maintain access to fishing grounds and markets where possible, or provide alternatives.

Safety Training: Provide training on navigation protocols, interpretation of markers/buoys, and distribute safety equipment (life jackets, lights, signals).

Compensation and Support

Compensation for Lost Income: Provide fair compensation for temporary loss of income, damage to gear, or restricted access during installation. Compensation should be based on documented past earnings and calculated transparently

Support for Transition: Offer temporary assistance (cash grants, job training,) until livelihoods are restored.

Restoration of Access: Rehabilitate or relocate fish landing sites, market stalls, and boat parking areas if original sites are impacted.

Infrastructure Support: Construct or improve shelters, storage, and sanitation facilities at alternative sites.

Environmental Monitoring: Monitor marine habitats for recovery and ensure cable routes avoid critical breeding grounds and sensitive areas

Vulnerable Groups: Provide additional support to women, small-scale fishers, informal workers, and other vulnerable groups.

SEA/SH Prevention: Implement measures to prevent and respond to sexual exploitation and abuse/harassment (SEA/SH), including training, codes of conduct, and referral services

Livelihood Restoration and Enhancement

Measures during construction

Emergency Support: Provide immediate financial assistance to affected households and businesses.

Alternative Income: Offer skill-building programs (e.g., aquaculture, logistics, tourism, small business) for those temporarily unable to work.

Women's Support: Ensure women involved in post-harvest activities have access to new or improved facilities and markets.

Post-Construction Measures

Training and Capacity Building: Offer vocational training in aquaculture, cage fisheries, tourism, and other marine-related enterprises.

Modernization: Provide modern fishing equipment and safety gear to improve efficiency and safety.

Social Development Programs: Integrate affected households into entrepreneurship and vocational training initiatives.

Monitoring and Evaluation

Performance Indicators: Track restoration of income levels, satisfaction of beneficiaries, and effectiveness of mitigation measures.

Regular Surveys: Conduct periodic surveys to assess community satisfaction and adapt interventions as needed.

Reporting: Submit regular progress reports to project stakeholders and the World Bank.

Institutional Arrangements

Project Coordination Unit (PCU): Established PCU with qualified environmental and social (& GBV) officers to oversee LRP implementation.

Stakeholder engagement: Collaborate with local government, NGOs, and private sector for delivery of training, grants, and infrastructure.

Budgeting: Ensure adequate budget allocation for all LRP activities, including compensation, training, and infrastructure.

Appendix 11: ESF Implementation Reporting Template

I. Executive Summary

- **Key Highlights:** Summary of the key environmental and social achievements.
- **Current civil works:**

II. Brief description of site in bullet form:

Example: Cable Landing Station at Sussex in the Western Area Rural District

- Located at this site over XYZ ha
- Works started in XYZ, expected to be completed by XYZ
- Supervision consultant
- Number of supervision field visits done by Project Implementation Unit
- MoCTI PCU monitoring of contractors
- etc

III. Contractor Information:

Name:

Activity	Status	Comments
ESMP submitted before start of civil works		
ESMP reviewed and cleared		
LMP and OHS plan		
Traffic Management Plan if needed		
Monthly reports submitted by contractor		
Training conducted by contractor		

Name:

Activity	Status	Comments
ESMP submitted before start of civil works		
ESMP reviewed and cleared		
LMP and OHS plan		
Traffic Management Plan if needed		
Monthly reports submitted by contractor		
Training conducted by contractor		

IV. Status of E&S standards:

The following table should be filled out based on observations from supervision consultant report and field visit findings and observations:

	Status	Comments; follow-up
Waste Management		
Materials sourcing	Quality; type; registered etc	
Labor conditions		
Occupational Health and Safety	PPE usage; Training etc	
Incidents		
Community health and safety	Barricades; lighting; etc	
Biodiversity	Not relevant	
Land acquisition	Not relevant	
Stakeholder engagement		
GBV		
Grievances	Yes/no; log; feedback etc	
Communications on ESF		

V. Synopsis of key Observations of the Supervision Consultant Report dated

Report dated		Comments
Month, 2025	1. 2. 3.	
Month, 2025		

VI. Observations of MoCTI PCU E&S Specialists:

Good practices undertaken	Challenges faced	Comments; suggestions

ANNEX I:

Add photographs; before, during and after

ANNEX II:

Any other attachments; documents etc

Appendix 12: Waste Management Plan

1.0 INTRODUCTION

The following Waste Management Plan (WMP) presents a framework outlining the general requirements essential for effective management of waste generated onsite during the construction works. The WMP outlines measures required to manage and mitigate the impact of waste generation and resource consumption during the construction works of the project. The plan includes details on the following:

- The types waste generated during construction activities;
- Procedures to collect and dispose of waste;
- Measures that will be implemented to minimize waste generation associated with the development; and program for monitoring the effectiveness of these measures.

This Plan also considers other aspects to waste management such as waste reduction, segregation of waste, disposal of waste.

2.0 ROLES AND RESPONSIBILITIES

The relevant roles and responsibilities to this plan are as outlined:

Project Manager

- Coordinate the implementation of this Construction Waste Management Plan.
- Coordinate site team to ensure site inspections and audits are conducted.
- Ensure environmental inspections are undertaken and records are kept.
- Coordinate the implementation of corrective and preventative action and incident response.
- Activate resources to ensure technical advice regarding environmental obligations, measures and protection is available.

Site Manager

- Ensure adequate waste management infrastructure, equipment (bins and trucks) and services are provided as required.
- Ensure that any incidents or observations that may occur during waste storage and/or handling events are properly managed.
- Implement approved waste management and minimization strategies as highlighted in this plan.
- Ensure that this plan is implemented and conduct Monthly Audit in coordination with the HSE Officer.
- Shall maintain the record of audits and training conducted.

HSE Officer

- Ensure that appointed waste transport vendor completes waste certificates prior to transporting.
- Ensure all waste bins are correctly labelled and stored in the appropriate designated area.
- Verify that all personnel, including contractors, have received the appropriate training in waste management practices and keep records of training as per Section 5 of this plan.

- Ensure Waste Inspections are being carried out on a weekly basis and Waste Inventories are being maintained.

All Personnel

- Implement the requirements of this Waste Management Plan in all aspects of the construction works.
- Ensure that the site is kept tidy, free from litter and that waste is put in the correct bins.
- Ensure that all incidents and observations relevant to waste are reported to Project Manager.

3.0 AWARENESS AND TRAINING

The Project will implement an awareness and training program that will be delivered to all construction workers. This training will include, but not be limited to:

- The application of the waste management hierarchy;
- Common waste streams produced in the construction site. ;
- Dangerous materials segregation and hazard classification codes.
- Efficient waste segregation.
- Spill Response; and
- Community impacts of poor waste management.

4.0 WASTE MANAGEMENT REQUIREMENTS

4.1 Waste Elimination and Minimization

The Project shall meet or exceed the requirements of this plan by implementing and maintaining a waste minimization strategy, as a minimum standard. The waste minimization strategy shall eliminate, minimize and manage waste during the construction activities through the following:

- Identification of waste streams and quantities;
- Implementation of management strategies for each waste stream;
- Defined roles and responsibilities;
- Training and awareness;
- Monitoring of waste streams and management activities;
- Encouraging sustainable waste management practices in the supply chain;
- Minimizing wastes from excess materials including but not limited to using surplus materials prior to re-ordering and reducing packaging waste;

4.2 Types of Waste, Classification and Handling Method

Construction site waste can be categorized as general (non-hazardous) or regulated (hazardous) waste. Regulated wastes are hazardous waste such as waste containing asbestos, oil or chemicals substances. All other waste streams are considered general waste, unless contaminated with a regulated waste.

In the event that an unknown material is discovered (e.g. liquid in a drum), it will be the responsibility of the site HSE Officer to identify the waste in coordination with the Site Manager and Store Supervisor. The person accountable in the event that the waste is not identified correctly and disposed of in the appropriate manner is the Site Manager.

Table 1 presents the waste types, classification and proposed handling methods to be implemented during the construction works.

Types of Wastes, Classification and Handling Method

Waste Type	Classification	Handling Method
Aluminum cans	General	Recycling
Batteries (cadmium and nickel/cadmium (NiCad), lead acid, lithium and other)	Regulated	Recycling
Paper	General	Recycling
Cardboard	General	Recycling
Printer cartridges	Regulated	Recycling
Plastics – bottles, drums and other containers	General (drums, depends on contaminant)	Recycle
General municipal waste	General	Treatment/Landfill
Organic waste	General	Recycle
Concrete	General	Recycle
Spent chemicals, Solvent, Paint	Regulated	Recycle
Oily waste	Regulated	Recycle
Scrap Metal (steel, aluminum, brass, copper, lead, other nonferrous metal, stainless steel and zinc)	General	Recycle
Used Filters – Oily filters	Regulated	Recycle
Septic/Effluent	Regulated	Regulated Site
Contaminated Soil	Not a waste	Treated*
High density polyethylene (HDPE) waste	General	Recycle
Rubber	Regulated	Recycle
Tires	Regulated	Recycle
Textiles and rags	General (unless contaminated with a regulated waste)	Reuse/ Recycle
Other solid regulated waste	Regulated	Regulated Landfill
Concrete –solid form left over	General	Recycled
Spent spill Clean Up	Regulated	Regulated Landfill

Note: General – Non-Hazardous Wasted, Regulated – Hazardous Waste

5.0 WASTE STORAGE REQUIREMENTS

5.1 General Waste

The following must be considered as minimum requirement for general waste storage areas:

1. General waste bins and containers (e.g. food scrap bins, recyclable bins, recyclable paper bins) are to be placed in easily accessible locations around the worksite. Recyclable waste shall be stored separately from general waste; ensuring maximized segregation potential has been met to minimize waste sent to landfill.
2. Liquid and solid wastes shall be segregated to allow for maximized recycling, bins will be color coded for the waste stream, where practicable.
3. Where a waste material or product does not have a specific bin, the bin used must be compatible with the waste and must then be labelled.
4. Spare bins shall be made available to accommodate for unforeseeable events.

5. Waste bins shall be maintained in good condition to prevent leaks or spills. Defective containers shall not be used for waste storage or transport.
6. Containers used for waste storage (such as waste oil drums) shall not be opened, handled, transported or stored in a manner that may rupture the container, cause it to leak or subject it to overpressure.
7. The waste storage area shall be of an adequate capacity to handle the volume of waste stored there without a risk to the environment.
8. The waste storage area shall be located in an easily accessible area to provide vehicle access to materials and waste storage areas for the collection and transport of wastes.
9. Waste storage areas shall have adequate firefighting equipment suitable for the type of waste stored at site.
10. The location of the waste storage area shall also consider the proximity to neighbors and environmentally sensitive areas to minimize impacts on people and the surrounding environment (e.g. impacts due to dust, windblown rubbish, pests, odour, visual amenity, noise and light).
11. Suitably sized spill kits and spill containment systems relevant to the activities within the site shall be available in the vicinity of the waste storage areas. Maintenance of spill kits shall be kept up to date, ensuring that no equipment is missing from the kit. Spills shall not be cleaned by hosing or activities resulting in the further spread of the contaminant to land or water.
12. All waste storage bins shall have secure lids and if required, clasps.
13. All waste containers shall be appropriately identified and clearly labelled.
14. All lids and if applicable clasps shall be maintained on waste storage bins to ensure that the waste does not cause an odor nuisance.
15. Lids on general waste bins containing food scraps shall be suitable to prevent access by birds.
16. Maximum retention times for wastes that may produce odors shall not exceed 7 days.
17. Waste shall not be burned.

5.2 Regulated (Hazardous) Waste

Regulated wastes shall be stored in the designated waste storage area. The area shall be clearly marked and records of the waste streams stored at site shall be held by the Site Manager. An assessment of the regulated waste storage area shall be undertaken by the HSE Officer on a regular basis to ensure that incompatible wastes are segregated.

To assist in the collection and transfer of regulated wastes, designated regulated waste bins, drums and skips shall be used where applicable. The following measures shall be implemented:

1. There will be dedicated regulated waste storage areas, to prevent the mixing of regulated wastes with other stored material.
2. An inventory will be kept and maintained of all regulated waste stored.
3. Loading and unloading procedures shall be undertaken in a manner that ensures wastes will not spill or containers break.
4. Containers storing regulated wastes shall be securely closed where practical.

5. Waste storage areas shall be clearly signed designating what wastes are to be deposited at storage location and any specific directions/hazards.
6. All containers shall be labelled at all times for clear interpretation of the contents.
7. There will be adequate containment measures to prevent off-site migration of spills.
8. Sufficient and appropriate clean equipment (spill kit) shall be provided together with appropriate instructions and training.
9. Spills shall not be cleaned by hosing or activities resulting in the further spread of the contaminant to land or water through the drainage channel.
10. No liquid wastes, wash down waters or storm water waste contaminated with hazardous waste will be disposed of via the storm water drainage system.
11. As soon as practicable, all regulated waste shall be removed to an approved waste disposal facility or recycling facility.
12. Waste shall not be burned or allowed to burn.

6.0 WASTE LABELLING

All wastes shall be labelled in accordance with examples provided in line with the following guidelines:

- Ensure that there are no other labels on the waste container except a label that refers to the current contents of the specific storage vessel or container.
- Containers shall be labelled as soon as the waste is added.
- Labels shall not be placed on a waste storage vessel or container prior to the addition of the waste as any spills may destroy such labels.
- Labels shall be of a reasonable size and clarity so that the waste material is easily identified.
- Labels shall be placed on the side of the containers; however, in the event a label cannot be placed on the side it shall be placed on the top of the container.
- Label shall be positioned such that it can be easily read.
- Do not cover the manufacturer 's product label (should the original drum be used) with waste labels.

7.0 WASTE DISPOSAL

All waste generated on site shall be disposed of in accordance with the S.I.15 National Environmental Protection (Management of Solid and Hazardous Wastes) Regulations 1999. Waste management options shall be done in accordance with the waste hierarchy. All other disposal options shall be considered first before sending waste to landfill and all opportunities to reduce waste volumes generated shall be explored.

7.1 Surplus Materials Identification, Classification and Declaration

• Identification

The Site Manager in coordination with Store Supervisor, shall identify materials that are surplus on an ongoing basis during the construction works to avoid unnecessary purchase that may lead to waste generation.

• Classification

Surplus Materials shall be classified by the Project as:

- a. **Obsolete:** Where a design change has rendered materials no longer required for incorporation into the construction works.
- b. **Damaged:** Where rectification of the damaged Material is not cost effective.
- c. **Scrap and waste materials:** Scrap are waste Materials that have no intended Project use which include but are not limited to:
 - Off cuts of pipe;
 - Off cuts of cable;
 - General recyclable waste (copper, steel, aluminium, timber, concrete);
 - Consumables; and
 - Excess tools and consumable Materials used in the construction phase.

8.0 WASTE TRANSPORT AND DISPOSAL

Waste shall be segregated accordingly until collection and off-site processing or disposal occurs. All waste volumes shall be transported by a licensed contractor and must be recorded on the Site Waste Report Register.

The following procedure shall be followed when waste collection occurs:

1. The waste collector must complete a Waste Consignment note by ensuring that:
 - a. The register has been filled out correctly.
 - b. The type of waste is identified in detail.
 - c. The area where the waste is to be collected is identified.
 - d. The amount of waste to be transported is identified.
 - e. Site contact for the collection of the waste is noted.
 - f. Handling requirements of waste have been identified from the MSDS where applicable or another relevant reference.
 - g. A contact for the waste destination has been identified and notified, where required.
2. During the loading of waste, spill kits and firefighting equipment must be made available as applicable.
3. If at any time during the load out and transporting event, it is considered unsafe to proceed or there is an increased potential that a waste material may be released to the environment, the activity shall cease, the Site Manager must be informed of the event, and an assessment of the situation must be undertaken.
4. All reasonable and practical measures shall be taken to ensure that wastes are adequately secured prior to the waste being transported.
5. The appointed waste vendor shall ensure that vehicles and equipment used for the transfer and transportation of wastes are not overloaded or loaded in a manner which could lead to a loss of containment during transportation. This shall be stated as a contract requirement.
6. The handling and management of wastes during transport shall be closely monitored to ensure there is no risk of a release to the environment.

9.0 INSPECTION CHECKLIST AND INVENTORY MANAGEMENT

Weekly visual inspections shall be performed. Evidence of inspection shall be retained and provided as may be required. The inspection checklist and inventory to be applied shall include but not be limited to:

- Labeling

- Bin condition
- House keeping
- Waste Segregation
- Availability of Spill kits
- Materials and Waste Inventory

7.BUDGET

The budget for implementing the ESMP covers activities to be taken to implement this plan.

Appendix 13: Outline of e-Waste Management Plan

Sources of e-Waste

- Construction Phase: Cable offcuts, packaging, damaged components, batteries, obsolete equipment.
- Operation Phase: Faulty IT equipment, backup batteries, network hardware, replaced cables.
- Decommissioning Phase: End-of-life cables, dismantled CLS equipment, obsolete infrastructure

Types of e-Waste

- Fiber optic cable offcuts and connectors
- Network switches, servers, routers
- Batteries (lead-acid, lithium-ion)
- Printed circuit boards
- Power supply units
- IT peripherals (monitors, keyboards, etc.)

Management Procedures

Waste Minimization

- Procurement: Specify durable, repairable, and recyclable equipment.
- Design: Optimize cable lengths to reduce offcuts; modular design for easy replacement.
- Operations: Implement preventive maintenance to extend equipment life.

Segregation and Storage

- On-site Segregation: Provide labeled containers for different e-waste streams (cables, batteries, IT hardware).
- Temporary Storage: Store e-waste in secure, weatherproof areas away from direct sunlight and rain.
- Documentation: Maintain records of e-waste types, quantities, and movement

Collection and Transportation

- Licensed Handlers: Engage EPA-registered e-waste collectors for transport.
- Transfer Notes: Use waste transfer documentation for each movement.
- Safe Handling: Train staff in safe handling and emergency procedures for hazardous components.

Treatment and Disposal

- Reuse and Recycling: Prioritize reuse of functional components and recycling of metals, plastics, and glass.
- Authorized Facilities: Dispose of non-recyclable e-waste at EPA-approved hazardous waste facilities.
- No Open Burning or Dumping: Strictly prohibit open burning or informal dumping of e-waste

Roles and Responsibilities

- Project Implementation Unit (MoCTI PCU): Overall responsibility for EWMP implementation, monitoring, and reporting.
- Contractors: Comply with EWMP requirements; segregate, store, and transfer e-waste as specified.
- EPA Sierra Leone: Regulatory oversight, licensing of handlers, and periodic audits.
- Community Stakeholders: Engage in awareness and reporting of improper e-waste practices.

Capacity Building and Awareness

- Training: Provide regular training for staff and contractors on e-waste handling, emergency response, and documentation.
- Community Engagement: Conduct outreach to local communities on the hazards of e-waste and safe practices

Monitoring and Reporting

- Regular Inspections: Conduct periodic site inspections to ensure compliance.
- Record Keeping: Maintain logs of e-waste generated, transferred, recycled, and disposed.
- Reporting: Submit quarterly reports to EPA and the World Bank on EWMP implementation and incidents

Emergency Response

- Spill Response: Prepare procedures for accidental release of hazardous materials (e.g., battery acid).
- First Aid: Ensure availability of first aid kits and trained personnel.

Decommissioning

- End-of-Life Management: Plan for safe removal and disposal of cables and CLS equipment at the end of their operational life.
- Environmental Assessment: Conduct an evaluation of decommissioning options, including recycling and reuse, in line with best environmental practices

Appendix 14: Chance Find Procedures

1. INTRODUCTION

Both national regulations and World Bank Environment and Social Standards especially, ESS8: Cultural Heritage, recognize the importance of cultural heritage for current and future generations. Though project sites are not yet known, the project design suggests that there will be no impacts on cultural resources. No works is expected to be carried out in cultural heritage areas. Nevertheless, this ESS is conservatively deemed relevant.

Therefore, the purpose of this chance find procedures is to provide MIC and other parties to the project with the appropriate response guidelines to be applied if previously unknown cultural heritage is encountered. This Chance Find Procedure considers international best practices such as WB ESS8, 1972 UNESCO Convention on the Protection of World Cultural and Natural Heritage (World Heritage Convention) and Sierra Leonean policies and laws for cultural resources protection. Thus, Chance Find Procedures (CFPs) are part of the E&S instruments that may have relevance during Project implementation. The Procedure applies to potential cultural heritage objects features or sites identified because of construction activities in the project area and its surroundings.

2. DEFINITIONS

A chance find procedure is a project-specific procedure that outlines actions to be taken if previously unknown cultural heritage is encountered. It is also defined as potential cultural heritage (or paleontological) whether movable or immovable objects, sites, structures, group of structures and natural features and landscapes that have archaeological, historical, religious, and other cultural significance. Cultural heritage recourses may include:

- Artefacts, whole or partial, such as ceramic sherds, stone items, glass fragments, bone, shell, metal, textiles, and plant and animal remains.
- Feature associated with human occupation such as trash dumps, middens, hearths, structural remains.
- Prehistoric or human remains found in formal graves, cemeteries, or as an isolated occurrence.

Non- Cultural Heritage Chance Finds many include modern objects, features, and burials and the decision about whether a Chance Find is a cultural heritage resource requiring additional treatment will be made by the MoCTI PCU in consultation with the Ministry of Tourism and Cultural Affairs where necessary.

3. PROCEDURES

If any person discovers a physical cultural resource, such as (but not limited to) archaeological sites, historical sites, remains and objects or a cemetery and/or individual graves during excavation or construction, the following procedures shall be applied:

1. If the Contractor discovers archaeological sites, historical sites, remains and objects, including graveyard and /or individual graves during excavation or construction, the Contractor shall:
 - Stop the construction activities in area of the chance find.
 - Delineate the discovered site or area.
 - Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be arranged until the responsible local authorities or National Museum takes over.
 - Notify the Environmental and Social Safeguard Specialist (ESSS) who in turn will notify responsible local or national authorities in charge of the Cultural Property i.e. the National Monuments and Relics Commission-NMRC (within 24 hours or less).

- Relevant local or national authorities would oversee protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage, those include the aesthetic, historic, scientific or research, social and economic values.
 - Decision on how to handle the finding shall be taken by the responsible authorities. This could include changes in the layout (such as when finding an irremovable remain of cultural or archaeological importance) conservation, preservation, restoration, and salvage.
 - If the cultural sites and /or relics are of high value and site preservation is recommended by the professionals and required design changes to accommodate the request and preserve the site.
 - Decisions concerning the management of the finding shall be communicated in writing to relevant authorities.
2. Construction works could resume only after permission is granted from the responsible local authorities concerning safeguarding of the heritage.

3. DOCUMENTATION

The ESSS will ensure that contractors and sub-contractors staff maintain records of monitoring, Chance Finds, and it will include:

- Daily monitoring records indicating areas and activities monitored, report Chance finds and the results of any evaluations.
- Weekly reports summarising reporting period activities including Chance Finds, assessment and evaluations, internal and external communications and instructions and supporting photographic documentation (or other reference material as appropriate). An additional report aimed at fulfilling any specific Ministry requirements is also anticipated.
- Monthly reports summarising monitoring and evaluation results, status of any site treatment measure requiring instructions to contractor(s) sub-contractor(s), and other internal and external communication. Additional monthly reporting may be required by the respective MDA.

5.CULTURAL HERITAGE TRAINING

All proposed project personnel are required to receive and comply with the Code of Conduct and receive training and demonstrate competency in (1) the identification of Chance Finds cultural heritage sites, objects, or features and (2) Chance Finds Management Procedure, that is those actions that are required in the case of suspected Chance Find. This training will be incorporated into the overall induction process for firms, contractor (s), and sub-contractor (s) personnel and will include a quick reference hand-out. All employees must be aware of the Sierra Leonean Policies and Laws on cultural heritage and WB ESS 8 that forbids disturbance or removal of cultural heritage objects offsite for personal gain. Disciplinary action should be taken against any personnel who violate this requirement.

6.REPORTING AND COMMUNICATION

Monitoring, review and reporting will be along with the conduct of ESIA/ESMP/ESMF and RP for the proposed project. Contractor (s); Sub-contractor (s) shall report all records on observational monitoring, protection measures, complaints, and damages to the ESSS on monthly and quarterly

basis. The ESSS shall report their monitoring records and the Contractor’s records to MoCTI PCU which will in turn inform relevant authorities e.g., NMRC on case-to-case basis and on a quarterly basis.

7. IMPLEMENTATION ARRANGEMENTS

The implementation arrangement and responsibilities of the Chance Find Procedures shall be as follows:

No.	STAKEHOLDER	RESPONSIBILITY	RESPONSIBLE PERSON
1	MoCTI PCU and SPV	-Overall coordination - Lead consultation with relevant authorities and local communities -Implement the procedure and provide required funds. - Monitoring the implementation of chance finds procedures and - Prepared required reports.	ESSS
2	Contractors and Sub-Contractors	-Stop the construction activities in the chance find -Install temporary site protection measures; and -Inform the client and document chance finds.	Site engineer/Site foreman
3	MTCA/NMRC	-Verification of chance finds -Approval of the treatment measures; in consultation with stakeholders. -provide the authorisation to resume works in the chance find area	In charge of tourism, culture, relics and monuments
4	Local Communities	-To attend consultation meetings. -To provide required information. -Participate in treatment measures	Local Population

8. BUDGET

The budget will depend on the chance finds and the proposed treatment measures. However, a provisional sum has been provided in the main ESMF implementation budget.

9. CONCLUSION

The present Chance Find Procedures serve as international best practice policy for the accidental discovery of heritage resources and provide the framework to handle them. Based on the definitions provided within this document and the proposed procedures of communication and handling chance finds, MTCA will be able to deal properly with the accidental discovery of heritage resources throughout the various phase of the project implementation especially during the construction phase.

Appendix 15: Sample Incident Form

Part C: To be completed by Borrower (following investigation)

C1: Investigation Findings
<p><i>For example:</i></p> <p>I. Where and when the incident took place:</p> <p>II. Who was involved, and how many people/households were affected:</p> <p>III. What happened and what conditions and actions influenced the incident:</p> <p>IV. what were the expected working procedures and were they followed:</p> <p>V. Did the organization or arrangement of the work influence the incident:</p> <p>VI. Were there adequate training/competent persons for the job, and was necessary and suitable equipment available:</p> <p>VII. What were the underlying causes; where there any absent risk control measures or any system failures:</p>

C2: Corrective Actions from the investigation to be implemented (To be fully described in Corrective Action Plan)		
Action	Responsible Party	Expected Date

Part C cont.: To be completed by Borrower (following investigation)

C3a: Fatality/Lost time Injury information						
<p>Immediate cause of fatality/injury for worker or member of the public (please check all that apply) ²:</p> <p>1. Caught in or between objects <input type="checkbox"/> 2. Struck by falling objects <input type="checkbox"/> 3. Stepping on, striking against, or struck by objects <input type="checkbox"/></p> <p>4. Drowning <input type="checkbox"/> 5. Chemical, biochemical, material exposure <input type="checkbox"/> 6. Falls, trips, slips <input type="checkbox"/> 7. Fire & explosion <input type="checkbox"/></p> <p>8. Electrocution <input type="checkbox"/> 9. Homicide <input type="checkbox"/> 10. Medical Issue <input type="checkbox"/> 11. Suicide <input type="checkbox"/> 12. Others <input type="checkbox"/></p> <p>Vehicle Traffic: 13. Project Vehicle Work Travel <input type="checkbox"/> 14. Non-project Vehicle Work Travel <input type="checkbox"/></p> <p>15. Project Vehicle Commuting <input type="checkbox"/> 16. Non-project Vehicle Commuting <input type="checkbox"/> 17. Vehicle Traffic Accident (Members of Public Only) <input type="checkbox"/></p>						
Name	Age/DOB	Date of Death/Injury	Gender	Nationality	Cause of Fatality/Injury	Worker (Employer)/Public

²See Annex 2 for definitions

C3b: Financial Support/Compensation Types (To be fully described in Corrective Action Plan template)

1. Contractor Direct 2. Contractor Insurance 3. Workman’s Compensation/National Insurance
 4. Court Determined Judicial Process 5. Other 6. No Compensation Required

Name	Compensation Type	Amount (US\$)	Responsible Party

C4: Supplementary Narrative

Appendix 16: Occupational Health and Safety (OHS) Procedures

The objective of the procedure is to achieve and maintain a healthy and safe work environment for all project workers (contracted workers and community workers) and the host community.

- On procurement for contractors, PCU within MoCTI will avail the ESMF to the aspiring contractors so that contractors include the budgetary requirements for OHS measures in their respective bids.
- The contractor will develop and maintain an OHS management system that is consistent with the scope of work, which must include measures and procedures to address all the following topics listed below and in accordance with local legislation and GIIP (as defined by World Bank Group EHSs). The management system must be consistent with the duration of contract and the LMP to be prepared under the project.
- Contractor will conduct workplace hazards identification and adopt all applicable E&S risk mitigation measures in accordance with Sierra Leone legislation requirements and WBG EHSs.
- The contractor designates a responsible person to oversee OHS related issues at the project site and define OHS roles and responsibilities for task leaders and contract managers.
- Contractors should put in place processes for workers to report work situations that they believe are not safe or healthy, and to remove themselves from a work situation which they have reasonable justification to believe presents an imminent and serious danger to their life or health, without fear of retaliation.
- Contractor provides preventive and protective measures, including modification, substitution, or elimination of hazardous conditions or substances informed by assessment and plan. Whenever PPEs are required for the work, it must be provided at no cost for the workers.
- Contractors should assess workers' exposure to hazardous agents (noise, vibration, heat, cold, vapors, chemicals, airborne contaminants etc.) and adopt adequate control measures in accordance with local regulations and WB EHSs.
- Contractors provide facilities appropriate to the circumstances of the work, including access to canteens, hygiene facilities, and appropriate areas for rest. Where accommodation services are provided to project workers, policies will be put in place and implemented on the management and quality of accommodation to protect and promote the health, safety, and well-being of the project workers, and to provide access to or provision of services that accommodate their physical, social and cultural needs.
- Contractor provides appropriate training/induction of project workers and maintenance of training records on OHS subjects.
- Contractor documents and reports on occupational incidents, diseases and incidents as per ESMF guidance.
- Contractor provides emergency prevention and preparedness and response arrangements to emergency situations including and not limited to workplace accidents, workplace illnesses, flooding, fire outbreak, disease outbreak, labor unrest and security.
- Contractor provides remedies for adverse impacts such as occupational injuries, deaths, disability and disease in accordance with local regulatory requirements and Good International Industry Practices.
- Contractors shall maintain all such record for activities related to safety health and environmental management for inspection by the MoCTI PCU or the World Bank.

Appendix 17: World Bank general EHS guidelines¹⁰

Air Emissions and Ambient Air Quality

WHO Ambient Air Quality Guidelines		
	Averaging Period	Value in $\mu\text{g}/\text{m}^3$
SO ₂	24-hour	125 (Interim target-1) 50 (Interim target-2) 20 (guideline) 500 (guideline)
	10 min	
NO ₂	1 year	40 (guideline)
	1 hour	200 (guideline)
PM ₁₀	1 year	70 (Interim target-1) 50 (Interim target-2) 30 (Interim target-3) 20 (guideline) 150 (Interim target-1)
	24-hour	100 (Interim target-2) 75 (Interim target-3) 50 (guideline)
PM _{2.5}	1 year	35 (Interim target-1) 25 (Interim target-2) 15 (Interim target-3) 10 (guideline) 75 (Interim target-1)
	24-hour	50 (Interim target-2) 37.5 (Interim target-3) 25 (guideline)
Ozone	8-hour	160 (Interim target-1)
	maximum daily	100 (guideline)

Ambient Noise Quality

Applicable Noise Guidelines		
Receptor	One Hour L _{Aeq} (dBA)	
	Daytime 07:00 - 22:00	Nighttime 22:00 - 07:00
Residential; institutional; educational ¹²	55	45
Industrial; commercial	70	70

Water Quality and Availability

WHO Guideline values for some chemicals that are of health significance in drinking water¹¹

Chemical	mg/l
Arsenic	0.01
Benzene	0.01
Cadmium	0.003
Carbon tetrachloride	0.004
Chlorine	5
Copper	2
Fluoride	1.5
Lead	0.01
Mercury	0.0006
Nickel	0.07
Nitrate	50
Nitrite	3
Trichloro acetate	0.2

¹⁰ https://documents1.worldbank.org/curated/en/157871484635724258/pdf/112110-WP-Final-General-EHS-Guidelines.pdf?_gl=1*1o0flug*_gcl_au*MjUzMzQ3OTI3LjE3MTkzMjI0MDA.

¹¹ https://cdn.who.int/media/docs/default-source/wash-documents/water-safety-and-quality/dwq-guidelines-4/gdwq4-with-add1-annex3.pdf?sfvrsn=f5f6be22_3

¹² For acceptable indoor noise levels for residential, institutional, and educational settings refer to WHO (1999).

Appendix 18: Attendance log

s/n	Name	Organization	Designation	Email
1	Mohammed Jalloh	MoCTI	Chief Director	Mohamed.mjalloh@sldtp.mocti.gov.sl
2	Kumba Liliana Musa	MoCTI	Project Coordinator	Coordinator@sldtp.mocti.gov.sl
3	Mariatu Barrie-Sam	MoCTI	E&S Safeguards Specialist	safeguards@sldtp.mocti.gov.sl
4	Henry Haffner	Zoodlabs	ACE O&M and CBP Manager	Henry.haffner@zoodlabs.com
5.	Mamoud Monsaray	MFMR	PFO	Monsaraymamoud85@gmail.com

ATTENDANCE
Names of Activity: Ministries Department and Agencies Stakeholder Consultation for WARDIP 2 Date: 16 October, 2025

No.	Name	Institution	Email	Tel. No.	Signature
1	Ronald Jalloh	SLTA	Shippingdirector@nether.com.sl	+23276355707	[Signature]
	Nyakeh Yormah	MOCTI	nyakeh.yormah@mocti.gov.sl	078405590	[Signature]
	Durgammi Kempes Sesay	SLMIA	Sur Environmental Mgr	078968344	[Signature]
	Yankuba Matali	SLMIA	matyankuba@slmia.com	079152720	[Signature]
	SIA FILLIE	SLPHA	fillie_sia@yahoo.com	079192205	[Signature]
	Tamba J. Nyaka	EPA-SL	tambanyaka@epa.gov.sl	076506767	[Signature]
	Bashiru Karim	EPA-SL	bashirakarim@epa.gov.sl	078257511	[Signature]
	Solomon George	EPA-SL	Solomon.george@epa.gov.sl	075986027	[Signature]

Appendix 19: Photo Log



Consultations with the Chief Director, MoCTI, Project Coordinator SLDTP/WARDIP SOP2, Environmental Specialist SLDTP/WARDIP SOP2



Consultations with officers of the Sierra Leone Maritime Administration



Consultations with the Deputy Harbour Master, Sierra Leone Ports Authority



Consultations with the Director, Communications, MoCTI



Consultations with EPA officials



Access road to the proposed 3 landing station sites (A, B, C).



Proposed Landing Station A



Proposed Landing Station B



Proposed Landing Station B



Existing telecommunication mast beside Station A



Proposed Landing Station C



Potential route for fiber optic cable



Portion of mangroves portions at the coast



Potential Landing Station D identified by the MocTI



Potential route for fiber optic cable to the ocean



Economic activities in the Sussex community



Visit to Zoodlabs at Aberdeen Freetown



Fibre optic manhole at Zoodlabs



Consultations with the Zoodlabs representative along the buried submarine cable route at Aberdeen Freetown



Location of Buried fiber optic cable route in Zoodlabs at Aberdeen Freetown

Appendix 20: Sample Code of Conduct for Contractors’ GBV/SEA/SH Prevention and Response

To build a system for SEA/SH risk prevention and mitigation, projects must:

- Have all employees of contractors (including sub-contractors), supervising Engineers and other consultants with a footprint on the ground in the project area sign CoCs.
- Have an effective SEA/SH Prevention and Response Action Plan so that workers understand behavior expectations and policies, as well as an effective GM. This Action Plan should include training and communication. It should also include plans to make the project-affected community aware of the CoC the project staff have just signed; and
- As part of the SEA/SH Prevention and Response Action Plan, define accountability and response protocols, which set out the procedures followed for holding individuals accountable and penalizing staff that have violated SEA/SH policies.

Note to the Employer:

The following minimum requirements shall not be modified. The Employer may add additional requirements to address identified issues, informed by relevant environmental and social assessment.

The types of issues identified could include risks associated with: labor influx, spread of communicable diseases, Sexual Exploitation and Sexual Abuse (SEA) etc.

Sample Code of Conduct for Contractor’s Personnel

We are the Contractor, [**enter name of Contractor**]. We have signed a contract with [**enter name of Employer**] for [**enter description of the Works**]. These Works will be carried out at [**enter the Site and other locations where the Works will be carried out**]. Our contract requires us to implement measures to address environmental and social risks related to the Works, including the risks of sexual exploitation and abuse and gender-based violence.

This Code of Conduct is part of our measures to deal with environmental and social risks related to the Works. It applies to all our staff, laborers and other employees at the Works Site or other places where the Works are being carried out. It also applies to the personnel of each subcontractor and any other personnel assisting us in the execution of the Works. All such persons are referred to as “**Contractor’s Personnel**” and are subject to this Code of Conduct.

This Code of Conduct identifies the behavior that we require from all Contractor’s Personnel.

Our workplace is an environment where unsafe, offensive, abusive or violent behavior will not be tolerated and where all persons should feel comfortable raising issues or concerns without fear of retaliation.

REQUIRED CONDUCT

Contractor’s Personnel shall:

1. carry out his/her duties competently and diligently
2. comply with this Code of Conduct and all applicable laws, regulations and other requirements, including requirements to protect the health, safety and well-being of other Contractor’s Personnel and any other person
3. maintain a safe working environment including by:

- a. ensuring that workplaces, machinery, equipment and processes under each person’s control are safe and without risk to health
 - b. wearing required personal protective equipment
 - c. using appropriate measures relating to chemical, physical and biological substances and agents; and
 - d. following applicable emergency operating procedures.
4. report work situations that he/she believes are not safe or healthy and remove himself/herself from a work situation which he/she reasonably believes presents an imminent and serious danger to his/her life or health;
 5. treat other people with respect, and not discriminate against specific groups such as women, people with disabilities, migrant workers or children;
 6. not engage in any form of sexual harassment including unwelcome sexual advances, requests for sexual favors, and other unwanted verbal or physical conduct of a sexual nature with other Contractor’s or Employer’s Personnel;
 7. not engage in Sexual Exploitation, which means any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another. In Bank-financed projects/operations, sexual exploitation occurs when access to or benefit from Bank-financed Goods, Works, Consulting or Non-consulting services is used to extract sexual gain;
 8. not engage in Rape, which means physically forced or otherwise coerced penetration—even if slight—of the vagina, anus or mouth with a penis or other body part. It also includes penetration of the vagina or anus with an object. Rape includes marital rape and anal rape/sodomy. The attempt to do so is known as attempted rape. Rape of a person by two or more perpetrators is known as gang rape;
 9. not engage in Sexual Assault, which means any form of non-consensual sexual contact that does not result in or include penetration. Examples include: attempted rape, as well as unwanted kissing, fondling, or touching of genitalia and buttocks not engage in any form of sexual activity with individuals under the age of 18, except in case of pre-existing marriage;
 10. complete relevant training courses that will be provided related to the environmental and social aspects of the Contract, including on health and safety matters, and Sexual Exploitation, and Sexual Abuse (SEA);
 11. report violations of this Code of Conduct; and
 12. not retaliate against any person who reports violations of this Code of Conduct, whether to us or the Employer, or who makes use of the [Project Grievance [Redress] Mechanism].

RAISING CONCERNS

If any person observes behavior that he/she believes may represent a violation of this Code of Conduct, or that otherwise concerns him/her, he/she should raise the issue promptly. This can be done in either of the following ways:

1. Contact ***[enter name of the Contractor’s Social Expert with relevant experience in handling gender-based violence, or if such person is not required under the Contract, another individual designated by the Contractor to handle these matters]*** in writing at this address [] or by telephone at [] or in person at []; or

2. Call [] to reach the Contractor’s hotline (*if any*) and leave a message.

The person’s identity will be kept confidential, unless reporting of allegations is mandated by the country law. Anonymous complaints or allegations may also be submitted and will be given all due and appropriate consideration. We take seriously all reports of possible misconduct and will investigate and take appropriate action. We will provide warm referrals to service providers that may help support the person who experienced the alleged incident, as appropriate.

There will be no retaliation against any person who raises a concern in good faith about any behavior prohibited by this Code of Conduct. Such retaliation would be a violation of this Code of Conduct.

CONSEQUENCES OF VIOLATING THE CODE OF CONDUCT

Any violation of this Code of Conduct by Contractor’s Personnel may result in serious consequences, up to and including termination and possible referral to legal authorities. FOR CONTRACTOR’S PERSONNEL:

I have received a copy of this Code of Conduct written in a language that I comprehend. I understand that if I have any questions about this Code of Conduct, I can contact **[enter name of Contractor’s contact person with relevant experience in handling gender-based violence]** requesting an explanation.

Name of Contractor’s Personnel: [insert name]

Signature:

Date: (day month year): _

Counter signature of authorized representative of the Contractor:

Signature: _____ Date: (day month year): _ _____

Appendix 21: Sample GRM Forms

1. Grievance Information Form

Date/Time received:	Date: (dd-mm-yyyy) <input type="checkbox"/> Time: am <input type="checkbox"/> pm	Grievance ID #:
Name of Complainant:		<input type="checkbox"/> You can use my name, but do not use it in public. <input type="checkbox"/> You can use my name when talking about this concern in public. <input type="checkbox"/> You cannot use my name at all.
Company (if applicable)		<input type="checkbox"/> You can use my company name, but do not use it in public. <input type="checkbox"/> You can use my company name when talking about this concern in public. <input type="checkbox"/> You cannot use my company name at all
Contact Information:	Phone: Email address: Address: Location: (Kindly indicate the preferred language and method of communication)	
Status of Occurrence	<input type="checkbox"/> One-time incident/complaint <input type="checkbox"/> Happened more than once (indicate how many times): <input type="checkbox"/> Ongoing (a currently existing problem)	

Grievant/Complainant Signature (if applicable)

Date (dd-mm-yyyy)

Project personnel Signature (to confirm receipt only)

Date (dd-mm-yyyy)

For PCU use only:

Grievance No: _____ Grievance Category:

- | | |
|---|---|
| <input type="checkbox"/> Problems during material transport | <input type="checkbox"/> Smell |
| <input type="checkbox"/> Blocked road access | <input type="checkbox"/> Problem with project staff |
| <input type="checkbox"/> Dust | <input type="checkbox"/> Other (specify): _____ |
| <input type="checkbox"/> Noise | |

Grievance Owner/ Department: _____

Grievant/Complainant Signature (if applicable)

2: Grievance Acknowledgement Form (GAF)

The project acknowledges receipt of your complaint and will contact you within 10 working days.

Grievance ID #:	
Date of grievance/complaint: (dd/mm/yyyy)	
Name of Grievant/Complainant:	
Complainant's Address and Contact Information:	
Summary of Grievance/Complaint: (Who, what, when, where)	

Appendix 22: Sample Outline of Contractor ESMP (C-ESMP)

a. Project Background and Description

- Overview of the submarine cable route, length, and technical specifications.
- Description of the cable landing station and associated terrestrial infrastructure (e.g., access roads, power supply, security fencing).

b. Legal and Institutional Framework

- Compliance with national environmental laws, World Bank Environmental and Social Framework (ESF), and relevant international conventions (e.g., MARPOL for marine operations).
- Required permits and approvals.

c. Environmental and Social Management Measures

Marine and Terrestrial Ecology

- Biodiversity Management Plan: Implement the Biodiversity Management Plan (BMP) which is a part of the ESIA/ESMP, in line with the guidelines of this ESMF and avoidance of sensitive habitats (e.g., turtle nesting sites, coral reefs), timing works outside breeding seasons, cable burial in shallow waters, and marine mammal spotting during vessel operations
- Pollution Prevention: Spill response plans, vessel maintenance, hazardous material handling, and waste management (including e-waste from cable offcuts).

Occupational Health and Safety (OHS)

- OHS Management Plan: Training, provision of PPE, emergency response procedures, first aid, and compliance with national and World Bank EHS guidelines.
- COVID-19 protocols and communicable disease prevention
- Worker safety: Injuries during marine and terrestrial works.

Community Health and Safety

- Traffic Management Plan for terrestrial works.
- Stakeholder engagement and grievance redress mechanisms.
- Sensitization of local communities, especially fisherfolk, regarding cable routes and construction schedules

Labor Management

- Labor Management Procedures (LMP): Local hiring, prevention of child and forced labor, fair working conditions, and workers' accommodation standards.

- Code of Conduct for all workers, including SEA/SH (Sexual Exploitation and Abuse/Sexual Harassment) prevention and sanctions

Waste and Resource Management

- Solid and liquid waste management plans, including safe disposal of construction debris and hazardous materials.
- Resource efficiency measures (water, energy, materials).

Cultural Heritage

- Chance Finds Procedure: Protocols for unexpected archaeological or cultural discoveries during excavation

Monitoring and Reporting

- Regular site inspections and audits by the contractor and MoCTI PCU .
- Monthly and quarterly E&S compliance reports, including incident logs, training records, and grievance logs.
- Third-party audits as required by the ESCP (Environmental and Social Commitment Plan)

Training and Capacity Building

- Induction and ongoing training for all workers on ESMP implementation, OHS, SEA/SH, and grievance procedures.
- Community awareness sessions prior to commencement of works

Appendix 23: Sample Traffic Management Plan

In general, a Traffic Management Plan is required for all projects that could have an impact on:

- **MOBILITY** - including interruptions to pedestrians, cyclists and vehicular traffic; and
- **COMMUNITY** - including interruptions to surrounding businesses and residents from construction activity and worker parking needs.

The objective of this TMP is to provide safe passage for pedestrians, cyclists and vehicular traffic along the proposed intervention sites

General Traffic Management Measures

Based on the proposed activities described in the ESMF, civil work activities will involve the installation of submarine cables from a main trunk in the ocean, with a branch point of some 158 km offshore (marine section). The Beach manhole (BMH) and Cable Landing Station (CLS) are expected to be at Sussex community. To do this safely, it will necessitate cording off of the ROW, around the construction zone and may disrupt traffic. In the following subsections, an overview of Traffic management requirements and plans are succinctly iterated.

Components of the Traffic Management Plan

The proposed TMP for the construction work should to a minimum address the following:

The Contractor should designate a TMP Supervisor who will oversee traffic management along major roads within the project corridors.

Traffic Management Plan for the project will address the following:

- a) **Safety Signage:** Safety signage will be put up along all major roads within the project corridors. This would inform motorists and other road users of the ongoing construction works within the area. Caution is most required by motorists and cyclists who transverse the project areas.
- b) **Diversion Signage:** Diversion signage will be erected at sensitive places where diversions will exist from the project implementation.
- c) **Communication:** The Contractor, with support from the MoCTI PCU, will prepare a communication protocol which will be shared with the communities within the respective zones. The communication protocol will provide a stepwise approach to informing residents about traffic plan alterations 48hrs before they are implemented. Communication with communities will be directly facilitated by the Contractor's Community Liaison Officer and respective Community Associations. Additionally, communications should be made with the PCU, traffic agencies and Community associations a week prior to notifying the general populace.
- d) **Liaisons with Government Traffic Agencies.** The TMP will ensure liaisons with the traffic agencies. In situations where heavy traffic impacts are envisaged, the Contractor will liaise with the traffic agencies to ensure traffic coordination and mitigate adverse traffic impacts.

Construction Traffic Management

A lot of heavy-duty vehicles and machinery will be used during construction. These will mostly bring materials to site and/or evacuate spent materials from the site. If not properly managed, these heavy vehicles and machinery could constitute obstruction to diverted traffic. Therefore, among others:

- Movement of tipper trucks to and from the project area shall be controlled as much as possible by the positioned flagmen in collaboration with relevant traffic management authority.
- As much as possible movements of project vehicles will be timed to coincide with off peak periods of traffic.
- Strict speed limits shall be enforced on all truck drivers working on this project and non-compliance shall be addressed by the contractor, supervision engineer and MoCTI PCU. Measures will be taken to educate the drivers during weekly pep talks.

Vehicles Breakdown and Accidents

Measures to avoid accidents on work sites, generally and particularly on construction sites should be adhered to. However, vehicle breakdowns could occur within the worksites and this could cause bottlenecks and snarls. Therefore, in the event of such an occurrence, there should be provision to immediately assist with evacuating such vehicles from traffic routes while tow vehicles will be contacted from the nearest point.

Traffic Control

To effectively manage traffic during the day, an assessment has been done on all the sites. The major traffic peak periods in the sites (during the working periods) that have serious traffic issues should be determined. There should be proper management of traffic at the determined peak/off peak periods and especially when there are mobilization and demobilization of machinery and heavy equipment on the site the following will be undertaken:

- Adequate number of well-trained flagmen should be deployed to manage the traffic situation.
- Mobilization and demobilization of heavy equipment should take place during off-peak traffic periods.
- Officers of the relevant traffic control agency should be coopted to coordinate traffic movement during mobilization and demobilization.
- The contractor should ensure that all construction activities are performed in accordance with the approved Traffic Management Plan.

Appendix 24: Sample Chemical Storage Plan (CSP)

Chemical Inventory

Typical chemicals used:

- Hydraulic fluids (for cable laying equipment)
- Lubricants (for cable handling machinery)
- Cleaning agents (for equipment maintenance)
- Fuel (diesel for generators and vessels)
- Epoxy resins and sealants (for cable joints and terminations)
- Antifouling agents (for marine equipment)

Storage Locations

Marine Segment

- Chemicals stored on cable-laying vessels must be in designated, ventilated storage rooms with secondary containment.
- All vessels must be MARPOL compliant, with certified storage and spill response equipment
- Chemicals stored and used on cable-laying vessels must be managed according to MARPOL and project-specific ESMPs.
- Vessels must have onboard waste management plans, spill response protocols, and regular audits

Terrestrial Segment (Sussex Community)

BMH

- Minimal chemical storage, mainly lubricants and sealants for cable pulling and jointing.
- Storage is limited to essential chemicals for cable jointing and maintenance.
- Structure must be reinforced, lockable, and equipped with spill containment

CLS

- Dedicated chemical storage room for maintenance chemicals, backup generator fuel, and cleaning agents. Storage must be secure, ventilated, and equipped with spill kits.
- Larger chemical inventory for ongoing maintenance and backup power.
- Storage room must meet international standards for chemical safety, with fire suppression, ventilation, and access control

Storage Requirements

- Secondary containment: All chemical containers must be placed in bunded areas to contain leaks/spills.
- Labeling: All chemicals must be clearly labeled with hazard information.
- Segregation: Incompatible chemicals (e.g., acids and bases, oxidizers and organics) must be stored separately.
- Ventilation: Storage areas must be ventilated to prevent accumulation of fumes.
- Access control: Only trained personnel may access chemical storage areas.

- Inventory management: Maintain a log of chemicals received, used, and disposed.

Safety and Environmental Controls

- Spill response: Spill kits and personal protective equipment (PPE) must be available at all storage locations.
- Training: All staff who handle chemicals must receive training in safe handling, emergency response, and first aid.
- Waste management: Used chemicals and containers must be disposed of at approved facilities, in line with national and international regulations
- Monitoring: Regular inspections of storage areas for leaks, corrosion, and compliance.

Emergency Procedures

- Spill containment: Immediate containment using absorbents and barriers.
- Notification: Report spills to project E&S manager and relevant authorities.
- Evacuation: Procedures for evacuation in case of major chemical incidents.
- Medical response: First aid and access to medical facilities for exposure incidents.

