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ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA) FOR SAFER ROADS FOR SOCIO-ECONOMIC INTEGRATION IN MOZAMBIQUE (SRSEI) - MULTIPHASE PROGRAMMATIC APPROACH (MPA)

(Contract n° 140/GE-ANE/370/2021)

Environmental and Social Impact Assessment

VOLUME 2E: ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

*Package 2: Gorongosa - Caia,
Lot 2 (84 - 168km)*

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**Environmental and Social Impact Assessment for the Safer Roads for
Socioeconomic Integration in Mozambique – Multiphase Programmatic
Approach**

This report consists of the following:

Volume 2A	Non-Technical Summary
Volume 2B	Main Report
Volume 2C	Annexes
Volume 2D	Public Consultation Report
Volume 2E	Environmental and Social Management Plan

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1 INTRODUCTION

1.1 Project Background

The Environmental and Social Management Plan (ESMP) has been prepared to support the implementation of the Environmental and Social Impact Assessment (ESIA) for the implementation of the Safer Road for Socio-Economic Integration (SRSEI) Project in Mozambique.

The Environmental and Social Management Plan (ESMP) is a critical component of the overall Project planning, design and implementation. It serves several essential purposes in the ESIA process that contribute to the overall effectiveness and sustainability of the project implementation. The ESMP details the actions and measures to be taken during the implementation and operation of the project through which the potential environmental and social risks and impacts of the Project are effectively managed and mitigated. This plan is developed based on the findings of the ESIA, and provides a structured approach to avoid, minimize to acceptable levels, or compensate for potential risks and impacts as well as enhance the positive impacts during various stages of the Project, namely the pre-rehabilitation/construction, rehabilitation/construction, operation and maintenance, and decommissioning phases.

As key factors and processes may change through the life of the project considerable provisions have been made for dynamism and flexibility of the ESMP. As such, the ESMP will be subjected to review during different phases of the project implementation.

1.2 Objectives of the ESMP

The primary purpose of this ESMP is to ensure that ANE, IP through the Contractor, service providers and others participant in the project implementation execute the project in an environmentally responsible and socially sensitive manner that balance development and nature conservation as well as sustain human well-being. The key objectives of the ESMP are to:

- Mitigate adverse risks and impacts and enhance the positive impacts of the proposed project to ensure sustainable development;
- Provide a robust structured framework for implementing mitigation measures for the adverse risks and impacts, while enhancing the positive impacts for the proposed project;

- Ensure community engagement to foster transparency and accountability in the management of the environment and social risks and impacts;
- Define roles and responsibilities for relevant institutions in the ESMP implementation and monitoring;
- Establish a monitoring and reporting framework to track compliance and effectiveness of mitigation measures over time; and
- Ensure the implementation of the project complies with local and national legal, as well as World Bank environmental and social requirements.

1.3 Basic Principles of the ESMP

The Environmental and Social Management Plan (ESMP) is anchored in a set of core principles that guide its formulation, implementation, monitoring and reporting:

- Ensure the commitment to sustainable development, which seeks to balance the economic benefits of the Project with the protection of environmental resources and social well-being.
- Emphasize and prioritizing prevention proactive measures to avoid or minimize negative impacts rather than reactive remediation.
- Ensure that the ESMP is designed to be a dynamic and adaptive document, capable of evolving in response to new information, changing circumstances, and stakeholder input to guarantee the most effective and responsible management of environmental and social impacts throughout the life of the Project;
- Provide the Ministry of Environment, Agriculture and Fisheries (MAAP) with a tool to facilitate the assessment of the objectives of the different phases of the project, taking into account Mozambican environmental legislation;
- Provide clear and binding instructions to the Contractor regarding its environmental and social responsibilities at all stages of the project with understanding that recurrent non-compliance shall be subject to penalties;
- Ensure monitoring of project implementation with regard to environmental and social issues;
- Ensure the health and safety of all project workers, with a greater focus on those on the construction site
- Ensure safety, respect and good relations with the communities surrounding the project;

- Ensure non-violence, zero sexual harassment and acts of sexual exploitation and abuse towards community members and amongst workers, with a greater focus on risks for minors in the project area;
- Ensure good communication with the communities and local leadership;
- Ensure a complaints and grievance mechanism for interested and affected parties (IAPs);
- Ensure continued compliance with Mozambican legislation and the World Bank's Environmental and Social Standards;
- Ensure regulators and other PAP's meet their requirements regarding environmental and social performance.

2 INSTITUTIONAL AND ADMINISTRATIVE ARRANGEMENTS FOR ESMP IMPLEMENTATION

2.1 Implementation of ESMP

The ESMP shall be implemented to address all activities that have been identified to have potentially significant risks and impacts on the biophysical, social and cultural environments during the implementation of the sub-project. The implementation of the road rehabilitation/construction project will be overseen by different relevant institutions that have a critical role in the activities. The main players in this construction project include the following:

National Road Administration (Administração Nacional de Estradas, Instituto Público)– ANE IP (Project Proponent)

The Project Proponent is ultimately the main party responsible for the implementation of this ESMP, even if most of the concrete actions will be put in place by a third party, such as the Contractor. To this end, during the tender for selection of the Contractor, the Project Proponent should integrate key Clauses in this ESMP into the tender documents, indicating that the Contractor will be responsible for adopting the ESMP during the rehabilitation/construction, and demobilization/decommissioning phases of the project). The aim is to establish the Contractor's compliance with the ESMP as a contractual requirement.

The Project Proponent is also responsible for the implementation of the compensation plan and actions, as described in the Resettlement Plan (submitted separately).

Ministry of Environment, Agriculture and Fisheries – MAAP (formerly MTA)

The MAAP is responsible for administering (making decisions) and coordinating on the Environmental and Social Impact Assessment (ESIA) process and regulating the environmental and social performance of projects and initiatives in Mozambique. According to Decree No. 54/2015, the MAAP is also responsible for inspection, verification and auditing of projects and initiatives in the country.

Supervision/Monitoring Consultant (The Engineer)

The Engineer is the consultancy company that will be hired by the Project Proponent to supervise the rehabilitation/construction works of the Project. The Engineer will monitor and report on the progress of the implementation of E&S management to ANE IP.

In terms of supervision of the implementation of the ESMP, the Engineer shall ensure that the following Human Resources are available within its structure:

- One Resident Engineer;
- One Environmental Specialist;
- One Occupational Health and Safety Specialist;
- One Social/Resettlement Specialist; and
- One GBV/SEA/SH Expert;

The Contractor

The Contractor is the construction company that will be hired by the Project Proponent to execute the rehabilitation/construction of the Project. The Contractor may also have sub-contractors, and the provisions of the ESMP for the Contractor must be passed on to the sub-contractors, under contract, this task being the Contractor's responsibility;

To meet the Project's environmental and social management commitments, the Contractor will have the following general responsibilities:

- Obtain all necessary permits, licenses and approvals to carry out construction activities;
- Rehabilitate and/or construct all affected areas, including work areas, rehabilitation/construction site, borrow areas and access roads, after completion of the works;
- Establish with the municipal authorities the final destination of the waste and its means of transportation and obtain the necessary permits;

- Implement communication channels with local authorities and leaders and affected communities;
- Comply with all the requirements included in the ESMP for the rehabilitation/construction and demobilizing/ decommissioning phases, through its integration into an ESMS for this phase, as well as using techniques, equipment, construction and rehabilitation methods that ensure compliance with the established standards and minimize the occurrence of any environmental or social damages;
- Fully implement mitigation measures included in the ESIA (as well as those from the Cumulative Impact Assessment (CIA) Submit monthly reports to the Project Proponent to evaluate progress in implementation of the ESMP and environmental and social standards;
- Act immediately upon receipt of a notice of non-compliance from the Project Proponent and correct what caused the notice to be issued.
- Complaints received must be recorded and their response noted indicating the date and actions taken. These records should be submitted with the monthly report;
- Ensure that all sub-contractors comply with the ESMP;
- Prevent or minimize the occurrence of accidents that may cause environmental and social damage;
- Report all incidents, accidents and infractions to the Project Proponent.

Prior to the commencement of the rehabilitation/construction phase, submit the Rehabilitation/Construction Work Plan to the Project Proponent for approval, including:

- Activity Schedule;
- The location of the construction site;
- The temporary storage areas for materials;
- Campsites and Workshops

- Borrow pits and quarries to be used to source materials (locations and Permit issuing process);
- Access roads;
- Site plan, including: Site plan indicating production areas, support infrastructure, storage areas for construction materials, social infrastructure and offices, technical networks (water supply and wastewater drainage network, rainwater drainage network, power supply, etc.);
- It should also identify normal and emergency routes for vehicles on site; Indicate fencing and surveillance methods; Plan and design of wastewater treatment system and location of discharge points, or contracts with specialized companies for the collection and subsequent treatment of wastewater temporarily stored on site, as applicable;
- Plan and design of the drainage and storm water control system and location of discharges;
- Plan and design of the temporary waste storage areas (hazardous and non-hazardous) and information on the final destination of this waste;
- Plan and design of the storage areas for hazardous materials.

With a view to implementing the ESMP, the Contractor shall ensure that the following Human Resources are available within its structure:

- One Project Manager;
- One Environmental Specialist;
- One Occupational Health and Safety Specialist;
- One Social Specialist
- One Community Liaison Specialist;
- One GBV/SEA/SH Specialist

Sufficient team to ensure adequate implementation of C-ESMP across all work fronts.

GBV Service Providers

These are the GBV Service Providers that will be hired by the Project Proponent to implement and manage the GBV/SEA/SH-sensitive Grievance Redress Mechanism (GRM) to resolve workers' grievances and also community complaints about the conduct of workers in the communities living in the project area. The GRM must include an accountability and response framework, complaint management protocols and procedures to assist the survivors (intake, registration, referrals, administrative investigation and case follow-up), including mapping service providers and referral pathways in relevant project implementation zones. The GBV Service Provider will provide training and awareness-raising campaigns to the PIU staff at all levels, and to all workers and project personnel at the site (Contractor, supervising staff and representative of the PIU institutions). The Service Provider will also assist with community consultations, especially with women, girls, physically challenged persons, female headed householders and other marginalized and vulnerable groups (single-headed households, differently abled, etc.) and community awareness-raising on SEA/SH-related risks. The Service provider will support the PIU to develop a monitoring and evaluation system to track progress on the implementation of relevant GBV/SEA/SH/VAC risks' mitigation measures in compliance with the ESMP requirements.

The External Auditor

The specific tasks of the external auditor include:

Being familiar with the requirements of the ESMP of this project; conducting verification visits for compliance with the implementation of the ESMP and recommendations put forward in the ESIA Report for the contractor to act on before, during and after the rehabilitation/construction works (e.g. Occupational Health and Safety Plan; recording all non-compliances with the ESMP; drafting measures to ensure compliance based on the ESMP and drafting the audit reports) among others.

3 ENVIRONMENTAL AND SOCIAL MANAGEMENT MEASURES

This Chapter presents a synopsis of the environmental and social management and monitoring frameworks. It presents a reflection of the implementation procedures and mechanisms for the mitigation measures and monitoring activities of all the anticipated risks and impacts.

3.1 Environmental and Social Management Mitigation Measures

Table 3-1 outlines mitigation measures for the pre-construction/rehabilitation, rehabilitation/construction, operation and maintenance, and decommissioning phases of the proposed sub-project. In general, the table outlines the potential environmental and social risks and impacts associated with the different project activities and details of all the necessary mitigation/enhancement measures, their anticipated financial costs, as well as the persons/institutions responsible for their implementation. The ESMP will be used as a benchmark to determine the effectiveness of the proposed mitigation/enhancement measures in addressing the identified risks and impacts of the project and provide baseline data for future environmental and social audits.

Environmental and Social Management Plan**Table 3-1 Potential Environmental and Social Impacts and Mitigation Measures**

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
IMPACTS DURING PRE-CONSTRUCTION/REHABILITATION (PLANNING AND DESIGN) PHASE					
POSITIVE IMPACTS					
1	Creation of temporary employment opportunities and skills transfer	• Employ well-qualified local Mozambican Consultants; • Provide equal employment opportunities to well-qualified Mozambican men, women and the youth, including local experts with physical challenges; and • Promote on-job skills transfer through pairing skilled •	Consultant and ANE PIU	During Pre-construction/rehabilitation Phase	No cost
2	Increased revenue for the Government of Mozambique	• Purchase substantial amount of goods and services from local suppliers; • Hire trucks and tippers from local transporters; and • Pay suppliers of goods and services on time.	Consultant and ANE PIU	During Pre-construction/rehabilitation Phase	Benefit cannot be calculated
NEGATIVE RISKS AND IMPACTS					
1	Increased risk to community health and safety, including in relation to SEA/SH/VAC, based on	• Contractor to apply base camp risk screening tool • Consultations with community members, including	Contractor and ANE PIU	In pre-construction / rehabilitation project planning and design phase (when base camp locations must be selected prior to start of civil works)	

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
	location of worker base camps	independent consultations with women in safe and confidential spaces, to assess risks relevant to selected base camp sites			
2	Mobilization of machinery, equipment and workers and construction materials (i.e. gravel, aggregate stones)	- Contractor to ensure all vehicles, equipment and machinery are certified fit for use and serviced, prior to mobilization to site. - Contractor to ensure all workers are inducted for all ESHS aspects related to the project and certified medically fit for work prior to commencement of activities. - Contractor to ensure construction materials used from licensed sources with approved management plans for borrow pits and quarries in place prior to commencement of activities.	Contractor and ANE PIU		
3	Project footprint site pegging	Contractor to ensure campsite location is properly sited, layout approved, borrow pits/quarries and water sources are identified	Contractor and ANE PIU		

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		and approved by local authorities.			
RISKS AND IMPACTS DURING CONSTRUCTION/REHABILITATION PHASE OF THE PROJECT					
POSITIVE IMPACTS					
1	Creation of temporary employment opportunities and skills transfer	• Endeavour to employ the largest proportion of workers locally; • Provide equal employment opportunities to both men and women, including the youth (over 18 years); • Pair skilled and unskilled workers to promote on-job skills transfer; • Pay workers' wages and salaries that are above Government minimum wages; • Engage the Department of Labor during recruitment of process of workers; • Employ 100% of the unskilled workers from the project area and 25 % of them must be women to increase their living resilience and livelihoods; • Provide equal opportunities to both male and female and non-discriminatory level of salaries;	Contractor and ANE PIU	Throughout the Construction/ Rehabilitation Phase	No cost

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		- Refrain from employing underage children and local authorities shall facilitate local employment arrangements; - Adopt a contract system that allows a high number of villages, especially along the route/road to benefit; and - Train local workers in road rehabilitation and improvement works, maintenance and implementation of ESIA/ESMP and GBV/SEA/SH/VAC risks mitigation measures including monitoring.			
2	Increased business/trade opportunities	- Purchase substantial amount of construction materials from local suppliers; - Hire lorries/pickups for carrying the construction materials from local transporters from the construction project catchment areas; and - Pay suppliers on time to boost their businesses	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	Benefit cannot be calculated
3	Increased revenue for the Government of Mozambique	Purchase substantial amount of goods and services from local suppliers;	Consultant and	Throughout the Rehabilitation/Construction Phase	Benefit cannot be calculated

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		• Hire trucks and tippers from local transporters; and • Pay suppliers of goods and services on time.	ANE PIU		
NEGATIVE RISKS AND IMPACTS					
1	Increased risk of air pollution	• Periodically spray water on loose soils and on soil mounds to suppress dust emissions; • Prepare and implement best management practice for dust emissions; • Monitoring of air quality monthly through PM10 and PM2.5 at campsite, work fronts and sensitive receptors such as schools, hospitals, residential communities, should they be located close to these sites where dust is generated. • Compact firmly loose soils on the rehabilitation and site office construction sites to suppress dust; • Re-use unused soil removed for backfilling and	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase as activities change/develop	5,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		rehabilitation of borrow pits and abandoned quarries; • Cover quarry stones, river sand and gravel appropriately when transporting to work front, camp sites and offices construction site • Minimize the amount of time that loose soil may remain exposed to wind; • Limit vehicle and machinery speed to 20 km/h all the time within the campsite/work fronts/borrow pits or quarry areas; • Regularly service vehicles, machinery and equipment as per manufacturer recommendations; • Reduce idling time for trucks and vehicles at the project site; • Preserve and/or plant more indigenous trees and grass along the PPZ to act as carbon sinks. • Ensure the implementation of a functioning Community			

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		and Workers Grievance Mechanism for Air Quality related complaints • Implement an Exceedances Investigation Procedure when air quality emissions have exceeded the permissible limits or in response to community grievances			
2	Increased risk of water pollution in the project area	• Develop and implement wastewater management plan; • Obtain water abstraction rights from the relevant authority prior to the commencement of rehabilitation works; • Ensure monthly water quality testing of all potable water sources; • Mix asphalt, quarry and sand on impervious surfaces and away from areas of potential runoff and water bodies; • Ensure controlled excavation practices that follow approved management plans to reduce soil erosion;	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	5,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		• Store liquid asphalt, fuel, oil and other chemicals in sealed containers in a bunded area; • Dispose of used oil at a designated hazardous waste facility approved by local authorities; • Separate storm water drains from wastewater drains to avoid water pollution; • Provide male and female workers with appropriate mobile toilet facilities, which are cleaned regularly and liquid waste disposed of safely in an appropriate manner; • Regularly inspect vehicles, plants and machinery for any oil leaks, and immediately repair leaks; • Clean any accidental fuel spills from the ground immediately and remove any fuel contaminated soil, store securely and dispose of at a designated hazardous waste facility approved by local authorities;			

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		• Conduct periodical monitoring of the quality of wastewater discharged from the kitchen and washing facilities at the workers camp site; • Construct soil and silt pit traps sediment basins around the project site; • Avoid clearing trees, grass, plants and shrubs outside the project impact area; and • Construct physical barriers (e.g. silt trap fences, sediment basins, containment booms, etc.) around the bridge going under rehabilitation or replacement. • Construct rainwater harvesting facilities in areas which may be affected by low water levels or if there is a drought to reduce dependence on groundwater harvesting.			
3	Increased risk of soil erosion and land degradation	• Limit rehabilitation and road improvement works to the PPZ; • Construct workers' camp sites and site office on flat land and away from water sources;	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	10,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		• Adopt and implement in the technical designs according to International Good Practices; • Implement good topsoil management according to International Good Practices; • Rehabilitate all active soil erosion sites at the project site; • Construct soil and silt pit traps sediment basins around the project site; • Avoid clearing trees, grass, herbs and shrubs outside the project impact area; • Stockpile soil materials in an appropriate place and protect them from erosion; • Firmly compact loose soils to reduce soil erosion; • Plant indigenous ground cover and drought resistant grass species in all disturbed and active soil erosion sites; • Reuse unused soils for backfilling; • Provide adequate and concrete lined storm water drainage at the road rehabilitation and site office construction sites. and			

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		Construct physical barriers (e.g. silt trap fences, sediment basins, containment booms, etc.) around the bridge going under rehabilitation or replacement.			
4	Increased risk of generation of hazardous and non-hazardous waste in the project area	- Develop and implement a robust waste management plan, which include annual waste audits; - Implement a policy of waste sorting, recycling and re-use; - Provide workers at the rehabilitation, campsite and site administration office with well-labelled dustbins; - Agree and sign Memorandum of Understanding (MoU) with communities on types of wastes to collect, recycle or re-use for various purposes; - Prohibit littering around the rehabilitation site; - Remove and dispose of general waste that cannot be recycled and reused, at the designated landfill in line with local municipality regulations;	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	10,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		• Provide male and female staff with mobile toilets; • Store all hazardous materials in a bunded area on impervious floor with drainage and collection sump to retain leaks and spills; and • Optimize use of water to reduce the amount of wastewater generation.			
5	Increased risk of loss of biodiversity (Fauna & Flora) and natural habitats	• Develop and implement Code of Conduct and Disciplinary/ Penalty measures for workers; • Develop Concept designs with road safety measures – warning signs and traffic calming measures (e.g. strip rumble surfaces and humps); • Prohibit wildlife poaching; • Prohibit workers from using firewood/charcoal; • Avoid cutting down any trees outside the project impact area; • Do not cut any trees with bird nests and holes; • Open canteens where workers can buy meals and/or provide food to workers;	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	20,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		• Plant five site indigenous trees for every single tree to be cut down during any land clearing required; • Prohibit introducing invasive alien plant species in the project sites; • Develop and enforce no fire Policy in the project area; • Support biodiversity law enforcement activities in the project area; • Prohibit workers from buying bush meat from local communities; • Invest in wildlife detection systems with signage that alerts drivers when animals are nearby. • Enforce lower speed limits in areas with frequent wildlife crossings to reduce collision risk; • Continue and improve existing animal movement mapping to continue to monitor and understand key animal movement corridors across the N1 road to continually adjust			

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		and improve traffic safety measures for wildlife. • Launch campaigns to educate drivers on wildlife risks, including signage, speed reductions in key areas, and information about wildlife crossings. This will involve local communities and park authorities in monitoring and managing wildlife passages, which can increase ownership and long-term success; • Avoid excavating in all water crossings; and • Include these measures in ESMP and Bidding Documents Bill of Quantities.			
6	Increased risk of noise pollution and vibration in the project area	• Technical design of the project must comply with international noise standards, particularly when passing through communities; • Inform communities in advance living around the project sites and associated facilities when noisy and vibration activities will occur;	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	5,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		- Road and Bridge rehabilitation is considered “Light Industry”, so workers shall not be exposed to noise levels over 50-65 dB(A), over an eight hour working period. - For off-site noise levels, such as near the houses, schools, health centers, churches, etc., during daytime, shall be below 55 dB(A), during a one hour period.; - Implement a regular noise/vibration monitoring plan to verify noise/vibration exposure levels - Identify and assess Project associated facilities early and propose mitigation measures to address noise and vibrations to emanate from these facilities; - Purchase primary supplies (e.g. gravel, quarry and river sand) from licensed suppliers to minimize E&S indirect risks and impacts associated with these activities; - Fit all heavy equipment and machinery with noise pollution			

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		control devices (i.e., silencers) that are operating correctly and efficiently; • Use modern asphalt plants fitted with noise-proof enclosures and noise dampening materials; • Construct noise barriers and partitions around the asphalt plants to prevent the spread of noise to communities; • Provide all workers with PPE (e.g., ear mufflers) in high noise exposure areas. • Orient and train drivers on driving good practices (e.g. speed management, switching off engine of vehicles and machinery not in use); • Optimize movement of vehicles and machinery to reduce noise; • Minimize engine idling time; and • Periodic medical hearing checks (recommended every 3 months) should be performed on workers exposed to high noise levels.			

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
7	Increased risk of the spread of HIV and AIDS and STIs amongst project personnel or surrounding communities	• Develop and implement HIV and AIDS Workplace Policy; • Regularly sensitize workers and local communities about HIV and AIDS, and STIs, and links with risks of SEA/SH; • Distribute HIV and AIDS information and education materials to workers and local communities; • Mobilize and put condoms in strategic places where workers can easily access them; • Allow infected workers to access Anti-Retroviral and STIs Treatment (ART) from hospitals and health centers; • Provide financial literacy sensitization programs to the surrounding local communities; • Employ people from the surrounding project area to minimize promiscuity; and • Sensitize workers on putting their income to productive use.	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	3,000.00
8	Increased Occupational Health and Safety	• Define an Occupational Health and Safety Policy and have an	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	20,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
	(OHS) Risks and Hazards	OHS plan for all the construction activities; • Prepare method statements and risk assessments for prior approval by the Engineer before commencement of activities. • Orient workers every day on identification of potential risks and hazards and application of appropriate mitigation strategies; • Prepare and implement emergency preparedness response, including extreme events (e.g. cyclones, floods, storm rains, etc.). Emergency response extends to production and use of hazardous substances such as hot asphalt; • Maintain a well-stocked first aid kit at the project area; • Train some workers on application of First Aid and use of First Aid Kit; • Develop and implement penalties for recurrent non-compliances of mitigation measures related to the Contractor OHS plan;			

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		• Develop and implement a Code of Conduct, which includes prohibitions against SEA/SH and any sexual contact or activity with minors (persons under 18); • Implement good house-keeping practices such as sorting and placing loose pieces of construction materials or demolition debris in established areas away from foot paths. • Train workers in appropriate lifting and material handling techniques; • Prohibit working against working with defective equipment; • Implement good housekeeping by regularly cleaning excessive waste debris and wastewater spills from the construction sites; • Construct temporary shade places at each project site for workers to rest to avoid heat related hazards; • Ensure sufficient barricading to protect workers and the public			

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		from risks of construction activities; • Ensure workmen's compensation policy is up to date; • Ensure all drivers sign a vehicle policy for safe driving behavior and be aware of consequences for infringements of the vehicle policy. • Ensure all vehicles are licensed and registered with up-to-date insurance policies. • Ensure all vehicles and machinery are well maintained and records kept up to date. Daily vehicle checks should be performed by all drivers and any anomalies attended by the workshop mechanics timeously, all evidences to be kept on file; • Prohibit the use of drugs and alcohol; • Provide for a safe work environment and adequate safety measures, training and protective equipment to all workers including hand, head,			

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		eye and ear protection and safety footwear; and All workers shall be provided with adequate PPE (Personal Protective Equipment) for the tasks required to be undertaken, including sufficient respiratory equipment for activities generating high dust levels and adequate protection for working with hot asphalt.			
9	Increased risk of Physical hazards	- Design machines to eliminate trap hazards and ensuring that extremities are kept out of harm's way under normal operating conditions. - Turn off, disconnect, isolate, and de-energize (Lock Out and Tag Out) machinery with exposed or guarded moving parts. - Design and install equipment, where feasible, to enable routine service, such as lubrication, without removal of the guarding devices or mechanisms.	Contractor and ANE PIU	Throughout the Rehabilitation/Construction phase	5,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
10	Increased risk of Chemical hazards	• Replace the hazardous substance with a less hazardous substitute; • Implement engineering and administrative control measures to avoid or minimize the release of hazardous substances into the work environment keeping the level of exposure below internationally established or recognized limits; • Store all hazardous chemicals in a secure area marked with adequate warning signs and provision for emergency response in case of accident; • Reduce number of employees exposed to chemical hazards to a minimum, ensure adequate training of use of hazardous substances and provide proper protective equipment must be used for substances such as hot asphalt including adequate respiratory equipment and body protection.	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	5,000.00
11	Increased risk of hazards of working in confined spaces	• Implement engineering measures to eliminate, to the degree feasible, the existence	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	3,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		of, and adverse character of confined spaces; • Adopt measures to avoid employees working in confined spaces for a long time in area without sufficient ventilation; • Provide permanent safety measures for venting, monitoring, and rescue operations of a confined space and use the permit to work system to ensure adequate measures are considered.			
12	Increased risk of hazards of working at height	• Conduct detailed risk assessment prior any works starting; • Provide appropriate training to all workers working at heights (e.g. use of equipment such as scaffolding and ladders), emergency evacuation procedures and proper use of PPE; • Choose appropriate equipment (e.g. suitable ladders and scaffolding, use of equipment that meets safety standards). Scaffold plans should be	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	10,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		approved prior to implementation; • Install guardrails with mid-rails and toe boards at the edge for any fall hazard area; and • Develop and implement safe work practices (e.g. avoid working at height wherever possible). • Use of fall prevention devices, including safety belt and lanyard travel limiting devices to prevent access to fall hazard area, or fall protection devices such as full body harnesses used in conjunction with shock absorbing lanyards or self-retracting inertial fall arrest devices attached to fixed anchor point or horizontal life-line; • Appropriate training in use, serviceability, and integrity of the necessary PPE; and • Inclusion of rescue and/or recovery plans, and equipment to respond to workers after an arrested fall.			

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
13	Increased risk of fire and explosion	• Install fire detectors, fire-fighting equipment and fire-alarm systems at the campsites and site office; • Conduct regular inspections of machinery and equipment service and maintain all electrical equipment as per manufacturer recommendations; • Eliminate common ignition sources (e.g. smoking, welding, open flames, cutting, etc.) at the campsites and site office; • Implement good housekeeping practices (e.g. maintain cleanliness by controlling fugitive dust) at the Campsites and site office; • Train and orient some employees on fire hazards, prevention techniques, emergency procedures, and proper use of fire-fighting equipment; and • Prohibit fires for cooking meals by workers.	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	10,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
14	Increased poor health and sanitation at the workplace	• Develop and implement workplace hygiene and sanitation policy; • Provide workers in campsites, site office and front workers with well-labelled dustbins; • Implement good housekeeping practices (e.g. maintain cleanliness by controlling fugitive dust) at the campsites, rehabilitation site and at the site office; • Wash utensils regularly with clean water; • Wash hands regularly with plenty of water and soap; • Drink and use safe potable water, i.e. ensure water from wells/boreholes is tested for potability and treated appropriately if required (use of chemicals or boiling), prior to consumption; • Boil, cook food well and keep it covered before eating; • Provide workers with separate mobile toilets for female and male workers;	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	10,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		• Allow workers to access treatment when sick; and • Provide workers at work fronts with potable water for drinking (e.g. from water dispensers or bottled water).			
15	Increased risks of community health and safety	• Develop and implement a robust traffic management plan, with specific traffic control sketches for complicated traffic management sections, e.g. half-width traffic management; • Develop community health and safety plan; • Restrict access to/barricade the rehabilitation/construction site, excavated roadside drains and borrow pit sites and use warning signs; • Raise sensitization campaigns and awareness on traffic management in community areas and on the project site; • Limit vehicle speed to 20 km/h or less on roads that are close to populated areas, trading centers, schools and health centers;	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	20,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		• Develop and implement borrow pit management plan; and • Locate borrow pits and quarry mines (500 m -1.0 km) away from schools, health centers, markets, churches/mosques, playgrounds, and ecologically sensitive areas. • Signs must be kept clean and well maintained if they are to be effective; • Develop specific measures for pedestrian safety, such as crossing locations taking into consideration the community's preference, as well as pedestrian safety awareness. This includes considering pedestrian access on any detours that may be required. • Press and radio releases to warn drivers and pedestrians of what to expect at a site, thus must minimize impatient and dangerous behavior; • Workers who control traffic must be properly trained; and • Traffic controllers and general road workers should wear			

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		suitable conspicuous clothing to ensure that they can be seen by motorists.			
16	Increased risk of disruption of traffic due to road rehabilitation and improvement works	• Develop and implement a robust traffic management plan; • Ensure all vehicles adhere to maximum speed limits of 30 km/hr in areas where activities are being undertaken; • Provide temporary detour/diversions for some vehicles to avoid obstruction of traffic, where possible; • Provide adequate road warning signs to properly guide traffic, control speed and warn road users about the construction works; and • Deploy flag persons who are well trained in understanding how to undertake good traffic management, particularly half-width traffic management. •	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	20,000.00
17	Increased risk of the spread of COVID-19 and other communicable	• Enforce all workers to wash hands regularly with soap or use hand sanitizer;	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	3,000,00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
	outbreaks among workers	• Reduce overcrowding by dividing workers into small groups of 5-10 people; • Workers must cover their mouth and nose when coughing and sneezing using handkerchiefs or tissue paper or sneeze into a flexed elbow; • Provide face masks to all workers; • Workers should keep a social distance of one metre from one another all the time; • Sensitize workers regularly to refrain from touching their faces, mouths, noses and eyes and to avoid handshakes; and • Isolate any worker who has symptoms associated with Covid-19 from others. •			
18	Increased risk of the spread of cholera and other communicable diseases	• Wash hands and utensils regularly with clean water; • Wash vegetables and fresh fruits with clean water before cooking or eating them;	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	3,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		• Drink and use safe water (e.g. water drawn from taps, kiosks, and bottled water) for cooking; • Treat water drawn from wells with chlorine or household bleach; • Boil or filter drinking water drawn from wells; and • Boil, cook food well and keep it covered before eaten.			
19	Increased risk of GBV/SEA/SH/VAC	• Develop and implement SEA/SH workplace policy; • Periodically sensitize workers and surrounding local communities on causes and consequences of GBV/SEA/SH/VAC • Develop and implement a clear reporting procedure for SEA/SH complaints; • Any SEA/SH complaints must be reported to PIU/Financier within 24 hours; • Implement the Code of Conduct (CoC) for a contractor and workers for GBV/SEA/SH/VAC; • The contractor and all workers shall sign and adhere to Code of Conduct (CoC); • Institute disciplinary actions (job dismissal, interdiction) against	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	10,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		perpetrators of SEA/SH; and - Take and/or report perpetrators of GBV/SEA/SH/VAC to relevant authorities for prosecution, with survivor consent/permit to do so. - In addition, the contractor is required to: - Prepare a C-ESMP that includes a detailed SEA/SH Prevention and Response Action Plan, based on a Risk Assessment, including risk factors related to placement of worker base camps; that will set forth key risk mitigation measures for the project, such as develop CoCs to address SEA/SH/VAC, train workers, identify and map locations of high risk, such as major areas with presence of sex workers or with high labor influx; implement a SEA/SH-sensitive GRM and identify and map entities that receive GBV survivor complaints; identify and map entities that provide holistic support to GBV survivors, conduct community consultations and awareness-raising, and other appropriate mitigation actions under the C-ESMP; - Develop and implement the project's Codes of Conduct			

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		(CoC); • All employees attend an induction training course prior to commencing work on site to ensure they are familiar with the Contractor's commitments to the project's Codes of Conduct, and other standards, such as ESHS and OHS standards; • All employees should sign the project's 'Individual Code of Conduct' confirming their agreement to comply with ESHS and OHS standards. This sets stringent standards for personal behavior by those working on the project so as to avoid GBV/SEA/SH and VAC; • Establish and operationalize GRM whose approach is sensitive to issues of GBV/SEA/SH, forced labor and child labor risks; • Engage law enforcement when complainants seek police response; • Information and awareness raising campaigns for community members, specifically women and girls; • Provision of information to host community about the contractor's policies and Worker Code of Conduct (where			

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		- applicable); • Provision of cultural sensitization training for workers regarding engagement with local community; and • Consultations with and involvement of local communities in project planning and implementation, including placement of worker base camps. Awareness-raising among local community and workers.			
20	Increased risk of Labor influx to the project sites	• Develop and implement Contractor's Labor Management Plan in line with Labor Management Procedures (LMP) and World Bank ESS2; • Employ most of the unskilled workforce from the surrounding project area; • Inform job seekers regularly about jobs available and where they can apply for available positions; • Engage local authorities and leaders in each sub project area to assist in recruitment of semi and unskilled workers by the contractor; • Prohibit child labor (under the age of 18 years) working directly or indirectly at the project site; • Develop and implement robust	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	3,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		guidelines to address issues of human trafficking, GBV/SEA/SH and Violence against Children (VAC) and Forced Labor; • Train local governance institutions and the police to address issues of human trafficking, GBV/SEA/SH, Violence against Children (VAC) and Forced Labor; and • Conduct GBV/SEA/SH awareness raising and train PIU staff and use third party service providers to assist with implementing mitigation measures on labor influx risk related to SEA/SH risk and impacts.			
21	Increased risk of loss of cultural heritage	• Avoid constructing camp sites and offices in any cultural heritage sites; • Maintain public access to cultural heritage sites (churches/mosques, cemeteries, etc.) at all times during the works; • Develop and implement chance finds procedure and Cultural Heritage C-ESMP; • Stop construction works immediately in case of accidental discovery of new artifacts and archaeological sites and resume the works after the	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	4,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		site has been archeological discharged by authorized archeologists; • Mark and map all previously recorded archaeological sites that along the road section prior to commencement of construction work • Repair or restore any damage to any known cultural heritage sites; and • Train project workers on the recognition of sites with historical or cultural value and the actions to be taken in the event of any sites or finds be encountered.			
22	Loss of land and property within PPZ	• Ensure road rehabilitation and improvement works are implemented within the PPZ, in order to avoid or minimize resettlement; • Avoid opening of new quarries and borrow pits, especially in occupied areas; • Obtain quarry and gravel from existing sites of licensed suppliers who have an ESMP in place; • Carry out sensitization meetings on planned project activities and likely impacts including loss of land/property with local communities directly or indirectly	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	5,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		affected, in the case of additional land requirements for detours/access roads/borrow pits/quarries; Develop and implement livelihood restoration plans (LRP) for the affected people that are vulnerable.			
23	Increased risk of disruption of utility services	- Inform the public utility service providers in advance of planned road rehabilitation works and the need to relocate utility services; - Restore utility services as soon as possible; - Provide information to the users about disruptions and reinstatement of public utility services - Assist users on identification and recommend use of alternative services providers, whenever possible.	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	10,000.00
24	Loss of houses and ancillary infrastructures	- Ensure road rehabilitation and improvement works are implemented within the PPZ in order to avoid or minimize compensation; - Provide compensation for demolished houses and ancillary infrastructures (e.g. kitchen, toilets, fences, etc.), as there is no need to displace the household; - Provide alternative land for	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	5,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		- house construction (resettlement area) in case of main house is demolished; - Assist the affected people in construction of the new house in the resettlement area through hiring a contractor to build the resettlement village whenever necessary; - Train the PAPs on financial and business development and management; and - Assist the vulnerable groups with business plans and to save their compensation money with banks available.			
25	Loss of crops and trees (commercial)	- Prepare a Resettlement Plan, if required, and document all the compensation process; - Provide compensation to PAPs for loss of crops and trees; - Provide fruit tree seedlings to PAPs to offset the loss; - Develop and Implement a Livelihood Restoration Plan (LRP) for all affected people including vulnerable groups.	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	10,000.00
26	Loss of business infrastructure	- Prepare a Resettlement Plan if required, and document all the compensation process; - Provide alternative land for businesses or market establishment outside the Road Reserve Area (PPZ);	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	10,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		- Provide a compensation for demolished business infrastructures (e.g., Shops, vending stalls, etc.); - Develop and Implement a Livelihood Restoration Plan (LRP) for all affected people, including vulnerable groups			
27	Loss of incomes and livelihoods	- Provide compensation to replace the income losses for all affected people in these businesses. The compensation amount can be calculated based on business profits earned by each individual in the business; - Provide alternative land for businesses and/or establishment of a new market outside the PPZ; - Hire the affected people or their relatives to work for the project (e.g., construction workers, affiliates in micro-enterprises, GBV activists, etc.); - Provide training on financial literacy for affected people (e.g., Management of the compensation payment and small business management) - Support affected people	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	5,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		(business owners) and their workers to find other job opportunities. - Publicly disclose CoC in local languages and disseminate to community members; - Include representatives from gender and sexual minority groups, elderly people, girls clubs, women's savings groups, children and persons with disabilities in the GRM and PLC;			
28	Increased risk of social conflicts	- Disclose any job opportunity related to the project - Prioritize hiring of local labor for the project (e.g., Construction works, affiliates in micro-enterprises, GBV activist, etc.); - Provide training on road maintenance for community members, mainly women in order to provide services to the project. - Support local entities to undertake price inspections in the local markets, whenever possible; and - Support local entities in organization of trade fairs, whenever possible.	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	2,500.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
29	Increased vulnerability of vulnerable groups	• Ensure that vulnerable groups are informed and participate in project related activities (e.g., public consultation, decision making about resettlement areas, etc.) • Sensitize and psychologically prepare the group for the entire resettlement process; • Prioritize this group in all mitigation measures related to them; • Provide a subsidy for this specific group as way to become self-sufficient and resilient to economic stress; • Provide assistance in transport during resettlement process.	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	3,000.00
30	Increased theft and vandalism of road rehabilitation/ construction materials	• Construct secure storeroom(s) for storage of construction materials; • Secure the entrance of a storeroom; • Engage the Mozambique Police Service to vet security personnel to be employed at the construction project site; • Deploy rigorously-vetted security personnel to guard the construction materials and other property; • Secure vulnerable materials (e.g. cement, lime, brick-force wire, planks, paints, tiles,	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	5,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		- solignum, etc.) with appropriate barriers; - Record all incoming and outgoing construction materials in register book; - Restrict entry to the storeroom(s) - Conduct sensitizations of workers on consequences of theft and vandalism of construction materials and company property; and - Install vandal proof materials at the construction project site.			
31	Increased energy and water use	- Sensitization of workers on use of energy and water efficiently; - Procure energy efficient equipment (e.g., solar equipment, generators); - Install and use alternative water and energy sources especially at peak hours (rainwater harvesting tanks, solar technologies etc.); - Store rainwater in tanks for basic water uses; - As early as possible, assess impacts and risks of water sources for camp sites and work fronts, particularly nearby communities so that if a	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	3,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		negative impact is expected, proper procedures and criteria on water for equitable water sharing must be put in place; • Abstract water from licensed sources; • Acquire from responsible authority permit(s) for water abstraction; • Energy efficiency (on building design and equipment) (e.g., solar panels to heat water and produce electricity); and • Conserve power and efficiently use water by switching electricity only if they are needed.			
32	Increased pressure on hydrological and water resources	• Ensure community water supplies are not affected by project use; • Use water harvesting technologies (e.g., water tanks) to capture rainwater for use during construction; • Recycle wastewater from active construction sites for reuse and • Avoid clearing of vegetation from sensitive areas (e.g., water catchment and along riverbanks).	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	3,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
33	Interference with crossing routes or wildlife	- Take note of wildlife crossing routes on the N1 in the Km0-84 Gorongosa-Caia section and prepare adequate traffic management measures to be included in designs, prior to any commencement of any construction works; - Prohibit unnecessary clearing of vegetation in the identified crossing routes for wildlife; - Prohibit any excavation works and heaping of construction materials (e.g. quarry, gravel) in these identified wildlife crossing routes.	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	10,000.00
34	Risks of quarry and borrow pits on the environment and community safety	- Borrow sites should be located away from cultivable lands and settlements, and drinking water intake points; - Quarries and borrow pits should be located in structurally stable area, even if some distance from construction site. Poorly excavated quarries and borrow pits can promote landslides and further aggravate maintenance and traffic flow resulting in higher overall costs; - The borrow pits and quarries should not be located near roadsides as they pose occupational health and safety risks (e.g., accidents and	Contractor and ANE PIU	Throughout the Rehabilitation/Construction Phase	5,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		injuries) to motorists and the general public; • Extraction of sand and stone from seasonal rivers should be avoided due to the impact on complex flood hydrology, which can result in more serious storm floods; • Extraction of stone and sand should be spread over the longest length possible so that no section of riverbed is excessively disturbed; • Clearing of trees and other vegetation should be discouraged. Only those trees which are absolutely necessary to operate the sites should be cleared; • The site should be restored after completion of construction activities, and left in stable condition without steep slopes; • The restored site should be drained, and no standing water shall remain. Stagnant waters become disease vectors breeding site and pose a threat to public health; • The sites must always be closed and restored in a planned and appropriate manner to suit local conditions and in consultation with the concerned owners			

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		and/or community. It should be done before spreading equipment is allowed to leave the site; and			
		Land utilized for riverbed extraction and quarry site access roads should also be restored as applicable			
RISKS AND IMPACTS DURING DEMOBILIZATION/DECOMMISSIONING PHASE					
POSITIVE IMPACTS					
1	Improved landscape and scenery along the rehabilitated section of the road corridor	- Remove all rubble from the project site to the designated dumpsite and must include a written record of final disposal site (to avoid dumping in uncertified sites); - Remove and use unused soils, concrete slabs and rubble for backfilling and restoration of old quarries; - Dispose of all containers where hazardous materials were stored at a designated site approved by MAAP and in line with national environmental legislation and guidelines; and - Rehabilitate and restore by planting indigenous trees, shrubs and grass in collaboration with licensed owners all quarries and borrow pits expected not to be used in future.	Contractor and ANE PIU	During the Demobilization/Decommissioning Phase	5,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		Ensure that contractors implement the rehabilitation plans developed for management of borrow pits and quarries.			
• NEGATIVE RISKS AND IMPACTS					
1	Increased risk of soil erosion and land degradation	- Spray water to surface of temporary structures to be demolished at the project site; - Regularly spray water on the ground and unused soil, sand, concrete and quarry areas to suppress dust; - Implement good topsoil management according to International Good Practices and International Sector Guidelines; - Cover all vehicles carrying rubble, unused soil and sand to the designated approved dumpsite by local council with tarpaulins or thick plastic sheets; and - Rehabilitate all active soil erosion sites at the project site; and - Re-use unused soils for backfilling.	Contractor and ANE PIU	During the Demobilization/Decommissioning Phase	5,000.00
2	Increased risk of air and water pollution	- Erect a temporary fence barrier around active demolition site to shield spread of dust; - Periodically spray water on loose soils and concrete debris	Contractor and ANE PIU	During the Demobilization/Decommissioning Phase	3,000.00

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		- to suppress dust emission; • Prepare and implement best management practice for dust emission; • Cover all trucks transporting debris and unused soils with tarpaulins or thick plastic sheets; • Drive trucks carrying rubble slowly to prevent dust generation over communities and housing; • Store and handle sand and cement gently to limit dust emission; • Firmly compact loose soils on the demolition site to suppress dust; • Re-use unused soil and broken concrete removed during excavation for backfilling; • Minimize the amount of time that loose soil remain exposed off to wind and run-off; • Regularly service vehicles, machinery and equipment as recommended in manufacturer manual books; • Reduce engine idling time; and • Regularly inspect any oil engine leaks and immediately seal any leakage.			
3	Increased risk of noise pollution and vibrations	• Technical design of the sub project must comply with international noise standards,	Contractor and ANE PIU	During the Demobilization/Decommissioning Phase	3,000.00

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Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		particularly when passing through communities; • Inform communities in advance living around the project sites and associated facilities when noisy and vibration activities will occur; • Road and Bridge rehabilitation is considered “Light Industry”, so workers shall not be exposed to noise levels over 50-65 dB(A), over an eight hour working period. • For off-site noise levels, such as near the houses, schools, health centers, churches, etc., during daytime, shall be below 55 dB(A), during a one hour period.; • Early identify and assess Project associated facilities and propose mitigation measures to address noise and vibrations to emanate from these facilities; • Purchase primary supplies (e.g. gravel, quarry and river sand) from licensed suppliers to minimize E&S indirect risks and impacts associated with these activities; • All heavy equipment and machinery shall be fitted with noise pollution control devices (i.e., silencers) that are			

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Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		- operating correctly and efficiently; • Use modern asphalt plants fitted with noise-proof enclosures and noise dampening materials; • Construct noise barriers and partitions around the asphalt plants to prevent the spread of noise to communities; • Provide all workers with PPE (e.g., ear muffs) in high noise exposure areas. • Orient and train drivers on driving good practices (e.g. speed management, switching off engine of vehicles and machinery not in use); • Optimize movement of vehicles and machinery to reduce noise; • Minimize engine idling time; and • Periodic medical hearing checks (recommended every 3 months) should be performed on workers exposed to high noise levels.			
4	Increased risk of generation of hazardous and non-hazardous waste	• Develop and implement a robust waste management plan to include a final waste audit; • Implement a policy of waste sorting, recycling and reusing; • Prohibit littering around the construction site; • Cover vehicles carrying rubble with tarpaulin to avoid spreading on the ground and on the road;	Contractor and ANE PIU	During the Demobilization/Decommissioning Phase	5,000.00

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Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		• Provide male and female staff with mobile toilets; • Ensure that general solid waste is disposed of at the authorized locations by municipalities of Gorongosa and Inchope; • Ensure that used oil is collected and re-used or recycled by licensed handlers; and • Ensure that all hazardous waste is disposed of a registered hazardous waste facility (currently only available in Matola, Maputo at the Mavoco landfill site)			
5	Increased risk of climate change	• Use demolition equipment and machinery that emit low greenhouse gases; • Periodically service and maintain equipment/machinery in line with manufacturer manual books; • Construction materials (e.g., wood/timber, stones, etc.) must be reclaimed for re-use in another project or subproject or donated to vulnerable people in villages for construction of their houses, minimize greenhouse gas emissions when buried in the ground or used as fuelwood; • Adopt and implement Climate Resilient Approach in Demobilization/Decommissionin	Contractor and ANE PIU	During the Demobilization/Decommissioning Phase	5,000.00

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Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		g Project of the sub-projects; and			
		Avoid clearing vegetation outside the demolition area.			
6	Increased risk of the spread of Covid-19 and other outbreaks	- Advise workers to regularly wash their hands with plenty of water and soap or use hand sanitizers if water and soap are not available at the project site; - Divide the workers into small groups and should work in shifts; - Encourage workers to cover their mouth and nose when coughing using clean handkerchiefs or tissue paper or flexed elbow; - Provide face masks to all workers and ensure they wear it at all times; - Advise workers to keep social distance from each other all the time; - Regularly sensitize workers to refrain from touching each other, their faces, mouths, noses and eyes and avoid handshakes.	Contractor and ANE PIU	During the Demobilization/Decommissioning Phase	1,000.00
7	Increased risk of the spread of HIV and AIDS and STIs	- Implement existing HIV and AIDS Workplace Policy; - Regularly sensitize workers and local communities about HIV and AIDS, and STIs; - Distribute HIV and AIDS information and education	Contractor and ANE PIU	During the Demobilization/Decommissioning Phase	1,000.00

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Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		materials to workers and local communities; • Mobilize and put condoms in strategic places where workers can easily access them; • Infected workers must access Anti-Retroviral Treatment (ART) from hospitals and health centers; • Provide financial literacy sensitization programs to the surrounding local communities affected by resettlement and those who will receive compensation for loss of assets; • Employ people from the surrounding project area to minimize promiscuity; and • Sensitize workers on putting their income to productive use.			
8	Increased risks of occupational health and safety	• Before commencing work, the Contractor will be required to identify potential hazards for each work task; • Provisions for emergency responses are to be included in the Contractor's site safety plan which is to include nomination of a person who will be immediately contacted in case of an accident occur; • Develop a disciplinary policy, for example, progressively (oral, written warning, suspension and	Contractor and ANE PIU	During the Demobilization/Decommissioning Phase	5,000.00

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Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		- dismissal of the worker); • Conduct on site trainings to workers on Occupation Health and Safety; • All the workers must sign the Code of Conduct CoC); • The Contractor must have/define its Occupational Health and Safety Policy; • The contractor will be required to keep the site free of drugs and alcohol; • The contractor 's site safety plan will include provision for a safe work environment and provide safety measures, training and protective equipment to all workers including hand, head, eye and ear protection and safety footwear; • All workers shall be provided with PPE (Personal Protective Equipment).			
9	Increased risks of GBV/SEA/SH/VAC	• Develop and implement GBV/SEA/SH workplace policy; • Periodically sensitize workers and surrounding local communities on causes and consequences of GBV/SEA/SH • Develop and implement a clear reporting procedure for SEA/SH complaints; • Implement the Code of Conduct (CoC) for a contractor and	Contractor and ANE PIU	During the Demobilization/Decommissioning Phase	5,000.00

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Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		workers for GBV/SEA/SH; • The contractor and all workers shall sign and adhere to Code of Conduct (CoC); • Institute disciplinary actions (job dismissal, interdiction) against perpetrators of GBV; and • Take and/or report perpetrators of GBV/SEA/SH to relevant authorities for prosecution, with survivor consent to do so. • In addition, the contractor is required to: • Prepare a C-ESMP that includes a detailed SEA/SH Prevention and Response Action Plan, based on a Risk Assessment; that will set forth key risk mitigation measures for the project, such as develop CoCs to address SEA/SH, train workers, identify and map locations of high risk, such as major areas with presence of sex workers or with high labor influx; implement a SEA/SH-sensitive GRM and identify and map entities that receive GBV survivor complaints; identify and map entities that provide holistic support to GBV survivors, conduct community consultations and awareness-raising, and other appropriate			

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Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		mitigation actions under the C-ESMP; • Develop and implement the project's Codes of Conduct (CoC); • All employees attend an induction training course prior to commencing work on site to ensure they are familiar with the Contractor's commitments to the project's Codes of Conduct, and other standards, such as ESHS and OHS standards; • All employees should sign the project's 'Individual Code of Conduct' confirming their agreement to comply with ESHS and OHS standards. This sets stringent standards for personal behavior by those working on the project so as to avoid GBV/SEA/SH and VAC; • Establish and operationalize GRM whose approach is sensitive to issues of GBV/SEA/SH, forced labor and child labor risks; • Engage law enforcement when complainants seek police response; • Information and awareness raising campaigns for community members, specifically women and girls;			

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Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		- Provision of information to host community about the contractor's policies and Worker Code of Conduct (where applicable); - Provision of cultural sensitization training for workers regarding engagement with local community; and - Consultations with and involvement of local communities in project planning and implementation. Awareness-raising among local community and workers.			
10	Increased risk of disruption of traffic due to demobilization and improvement works	- Develop and implement a robust traffic management plan; - Ensure all vehicles adhere to maximum speed limits of 30 km/hr in areas where activities are being undertaken; - Provide temporary detour/diversions for some vehicles to avoid obstruction of traffic, where possible; - Provide adequate road warning signs to properly guide traffic, control speed and warn road users about the construction works; and	Contractor and ANE PIU	During the Demobilization/Decommissioning Phase	10,000.00

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Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		Deploy flag persons who are well trained in understanding how to undertake good traffic management, particularly half-width traffic management.			
RISKS AND IMPACTS DURING OPERATION AND MAINTENANCE PHASE					
POSITIVE IMPACTS					
1	Improved connectivity and access to markets within the corridor and beyond	- Regular maintenance of the infrastructure; - Establish/Support/strengthen community policing committees at strategic places along the corridor to monitor and curb vandalism of road signs along the corridor; and - Robust Supervision and Monitoring of maintenance of the infrastructure.	ANE, IP	During the Operation and Maintenance Phase	Not Applicable (N/A) (to be included in ANE,IP's annual budget)
2	Improved road safety	- Sensitize communities to care for road signs - Establish/Support/strength community policing committees along the corridor to monitor and curb vandalism of road signs along the corridor; - Regular maintenance of the road infrastructure; - Replacement of signage once vandalized.	ANE, IP	During the Operation and Maintenance Phase	Not Applicable (N/A) (to be included in ANE,IP's annual budget)

Environmental and Social Management Plan

Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
3	Reduced costs of transportation of goods and services due to less consumption of fuel or gas by vehicles	- Regularly inspect and maintain the road surface by sealing any potholes, cracks and other surface issues; and - Regularly maintain any broken roadside culverts or drainage pipes.	ANE, IP	During the Operation and Maintenance Phase	Not Applicable (N/A) (to be included in ANE,IP's annual budget)
NEGATIVE IMPACTS AND RISKS					
1	Increased deforestation along the rehabilitated road sections	- Law enforcement must be implemented by appropriate authorities for those found cutting down trees without authorization; - Establish roadblocks at strategic places to curb transportation of fuel wood (charcoal, firewood) to urban centers and cities of the country; - Police and officers from Departments of Forestry and National Parks/Hunting & Forestry concessions shall conduct regular monitoring and spot check of vehicles, in particular, trucks and lorries; - Impose heavy fines and/or penalties to any contractor or his worker found breaking the Forestry and Wildlife Decrees and regulations.	ANE, IP and Department of Forestry	During the Operation and Maintenance Phase	Not Applicable (N/A) (to be included in ANE,IP's annual budget)
2	Wildlife population reduction caused by	Develop and implement Code of Conduct on wildlife poaching and trade;	ANE, IP and Ministry responsible for Wildlife	During the Operation and Maintenance Phase	Not Applicable (N/A)

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Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
	increased hunting, road kills and forestry operations	- Prohibit workers and job seekers against poaching of and/or illegal trade in wildlife animals; - Institute disciplinary measures on any wildlife poaching and trade; and - Prosecute appropriately any worker to be found poaching or in possession of wildlife and/or their products.			(to be included in ANE,IP's annual budget)
3	Increased risks of Road safety	- Sensitize all road users about the road maintenance works being carried out; - Install sufficient warning signs in strategic places along the road; - Barricade all sites under active maintenance with high visibility barricade material; and - Regulate movement of vehicles. - Regularly monitor wildlife road incidents or kills in rehabilitated road sections. - Develop and implement a robust Traffic Management Plan for the Maintenance Phase which should be monitored and updated whenever needed.	ANE, IP	During the Operation and Maintenance Phase	Not Applicable (N/A) (to be included in ANE,IP's annual budget)
4	Urban expansion into agricultural land	- Urban areas must be zoned properly to avoid encroachment of agricultural land; - Encourage developers in urban areas to build infrastructure vertically as opposed to laterally to reduce demand for new land;	ANE, IP and Ministry of Planning and Development	During the Operation and Maintenance Phase	Not Applicable (N/A) (to be included in ANE,IP's annual budget)

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Item	Potential impact	Recommended Enhancement/Mitigation Measures	Responsible Person/Institution	Time/frequency for Implementation	Estimated Costs (US\$)
		and			
		Enforce town/urban by-laws on urbanization expansion			
9	Increased risk of theft and vandalism of road signs and roadside guard rails	- Use perforated materials when making road signs; - Use anti-theft fasteners when fitting the road signs to a pole; - Use road sign poles that are made of concrete with round bar steel inside as opposed to poles made of metal steel or wood as they are prone to theft; - Install road signs at a greater height to make it difficult for thieves to easily remove them; and - Reinstall immediately all vandalized or stolen road signs.	ANE, IP and Mozambique Police Service	During the Operation and maintenance Phase	Not Applicable (N/A) (to be included in ANE,IP's annual budget)
Total estimated budget for ESMP implementation					300,500.00

Environmental and Social Management Plan

3.2 Environmental and Social Management Plan Monitoring Activities

The Environmental and Social Management Plan (ESMP) monitoring activities are to be implemented during pre-construction/rehabilitation, construction/rehabilitation, operation/maintenance and demobilization/decommissioning and phases of the proposed project. The ESMP is expected to be implemented by independent institutions who have the technical expertise of the proposed project and understanding of the anticipated risks and impacts to be generated during the implementation of the activities. This strategy will ensure transparency and accountability and instill confidence and trust in directly and indirectly project affected stakeholders and those that have interest in the proposed project. Table 3-2 provides the proposed monitoring institutions, monitoring performance indicators, monitoring frequency and the estimated costs for the implementation of the monitoring plan. For activities which do not have costs, it is assumed that those will be funded by the Employer through its annual budget plan. The Contractor, in particular, as well as the Project Supervising Engineer will also perform monitoring activities as part of their daily routine work.

ANE, IP as the implementing agency of this project shall be involved in the monitoring of the activities to be carried out by the independent institutions and the Third-Party Monitoring Agency. Monitoring the implementation of the ESMP is crucial for ensuring that all project activities comply with established environmental and social standards. This compliance is necessary to mitigate potential adverse impacts on the environmental and local communities. Regular monitoring allows for timely identification of any deviations from ESMP, provides insights on the effectiveness of the implementation of the mitigation/enhancement measures, and enables corrective actions to be undertaken before issues escalate.

Environmental and Social Management Plan**Table 3-2 Environmental and Social Monitoring Plan**

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
RISKS AND IMPACTS DURING PRE-CONSTRUCTION/REHABILITATION (PLANNING AND DESIGN) PHASE							
POSITIVE IMPACTS							
1	Creation of temporary employment opportunities and skills transfer	• Employ at least the largest proportion of workers locally; • Provide equal employment opportunities to both men and women, including the youth; • Pair skilled and unskilled workers to promote on-job skills transfer; • Identify and train local workers, especially women and youth to meet the contractor's labor needs; • Pay workers' wages and salaries that are above Government minimum wages; • Engage the Department of Labor during recruitment of process of workers; • Employ 100% of the unskilled workers from the project area and 25 % of them must be women to increase their living resilience and livelihoods; • Provide equal opportunities to both male and female and non-discriminatory level of salaries; • Refrain from employing underage children and local authorities shall facilitate local employment arrangements; • Adopt a contract system that	• Number of people segregated by gender employed. • Number of workers trained on-job skills and other related disciplines. • Number of employment Contracts signed	Inspections of the project site Review of signed contracts signed by each individual Contractor/Consultant segregated by gender	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Monthly Mid-term of project + End of project	1,000.00

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No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		allows a high number of villages, especially along the route/road to benefit; and Train local workers in road rehabilitation and improvement works, maintenance and implementation of ESIA/ESMP and anti-GBV related procedures, and monitoring.					
2	Increased revenue for the Government of Mozambique	- Purchase substantial amount of goods and services from local suppliers; - Hire trucks and tippers from local transporters; and - Pay suppliers of goods and services on time.	Amount of money collected and paid to Tax Authority of Mozambique (TA) through taxes	Review of payment vouchers made to TA Mozambique	TA Mozambique Contractor	Quarterly Quarterly	1,000.00
RISKS AND IMPACTS DURING REHABILITATION/CONSTRUCTION PHASE OF THE PROJECT							
POSITIVE IMPACTS							
1	Creation of temporary employment opportunities and skills transfer	- Employ at least the largest proportion of workers locally; - Provide equal employment opportunities to both men and women, including the youth; - Pair skilled and unskilled workers to promote on-job skills transfer; - Pay workers' wages and salaries that are above Government minimum wages; - Engage the Department of Labor during recruitment of process of workers;	- Number of people segregated by gender employed - Number of workers trained on-job skills and other related discipline - Number of employment Contracts signed	Inspections of the project site Review of signed contracts signed by each individual Contractor/Consultant segregated by gender	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Monthly Mid- term of project + End of project	1,500.00

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No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		• Employ 100% of the unskilled workers from the project area and 25 % of them must be women to increase their living resilience and livelihoods; • Provide equal opportunities to both male and female and non-discriminatory level of salaries; • Refrain from employing underage children and local authorities shall facilitate local employment arrangements; • Adopt a contract system that allows a high number of villages, especially along the route/road to benefit; and • Train local workers in road rehabilitation and improvement works, maintenance and implementation of ESIA/ESMP and anti-GBV related procedures, and monitoring.					
2	Increased business/trade opportunities	• Purchase substantial amount of construction materials from local suppliers; • Hire lorries/pickups for carrying the construction materials from local transporters from the construction project catchment areas; and • Pay suppliers on time to boost their businesses	• Number of contracts signed with local business enterprises/ suppliers segregated by gender; and • Number of vulnerable people	Inspections of the project site Review of signed contracts signed by each individual Contractor/Consultant segregated by gender	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Monthly Mid-term of project + End of project	1,500.00

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No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
			segregated by gender given business opportunities by Contractor(s)				
3	Increased revenue for the Government of Mozambique	• Purchase substantial amount of goods and services from local suppliers; • Hire trucks and tippers from local transporters; and • Pay suppliers of goods and services on time.	• Amount of money collected and paid to TA Mozambique through taxes	Review of payment records/vouchers Inspection of TA Mozambique receipts	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Monthly Mid- term of project + End of project	1,000.00
NEGATIVE RISKS AND IMPACTS							
1	Increased risk of air pollution	• Periodically spray water on loose soils and on soil mounds to suppress dust emissions; • Prepare and implement best management practice for dust emissions; • Compact firmly loose soils on the rehabilitation and site office construction sites to suppress dust; • Re-use unused soil removed for backfilling and rehabilitation of borrow pits and abandoned quarries;	Number of times in a day when water is sprayed on the active rehabilitation sites Tons of unused soils used for backfilling of gullies, old borrow pits and quarries Number of speed calming	Inspection to the Project sites Handheld monitoring device use Review of monthly/quarterly site progress reports	Contractor – handheld device monitoring, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	22,000.00

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No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		- Cover appropriately quarry stones, river sand and gravel when transporting to work front, camp sites and offices construction site - Minimize the amount of time that loose soil may remain exposed to wind; - Limit vehicle and machinery speed to 20 km/hr all the time; - Regularly service vehicles, machinery and equipment as per manufacturer recommendations; - Reduce idling time for trucks and vehicles at the project site; - Preserve and/or plant more trees and grass along the PPZ act as carbon sinks.	signposts installed along the rehabilitation road section.				
2	Increased risk of water pollution in the project area	- Develop and implement wastewater management plan; - Ensure monthly water quality testing of all potable water sources; - Mix asphalt, quarry and sand on impervious surfaces and away from areas of potential runoff and water bodies; - Ensure controlled excavation practices that follow approved management plans to reduce soil erosion;	Number of water tests conducted per month Wastewater Management Plan	Inspection at the project sites Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Daily Weekly Monthly Mid-term of project + End of project	2,000.00

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No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		• Store liquid asphalt, fuel, oil and other chemicals in sealed containers in a bunded area; • Dispose of used oil at a designated hazardous waste facility approved by local authorities; • Separate storm water drains from wastewater drains to avoid water pollution; • Provide male and female workers with appropriate mobile toilet facilities, which are cleaned regularly and liquid waste disposed of safely in an appropriate manner; • Regularly inspect vehicles, plants and machinery for any oil leaks, and immediately repair leaks; • Clean any accidental fuel spills from the ground immediately and remove any fuel contaminated soil, store securely and dispose of at a designated hazardous waste facility approved by local authorities; • Conduct periodical monitoring of the quality of wastewater discharged from the kitchen					

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No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		and washing facilities at the workers camp site; • Construct soil and silt pit traps sediment basins around the project site; • Avoid clearing trees, grass, plants and shrubs outside the project impact area; and • Construct physical barriers (e.g. silt trap fences, sediment basins, containment booms, etc.) around the bridge going under rehabilitation or replacement. • Construct rainwater harvesting facilities in areas which may be affected by low water levels or if there is a drought to reduce dependence on groundwater harvesting.					
3	Increased risk of soil erosion and land degradation	• Limit rehabilitation and road improvement works to the PPZ; • Construct workers' camp sites and site office on flat land and away from water sources; • Adopt and implement International Good Practices in the technical designs; • Implement good topsoil management according to International Good Practices;	Ha. of land outside PPZ encroached by road rehabilitation Workers campsites and site administration office constructed	Inspection to the project sites Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	3,000.00

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No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		- Rehabilitate all active soil erosion sites at the project site; - Construct soil and silt pit traps sediment basins around the project site; - Avoid clearing trees, grass, herbs and shrubs outside the project impact area; - Stockpile soil materials in an appropriate place and protect them from erosion; - Firmly compact loose soils to reduce soil erosion; - Plant indigenous ground cover and drought resistant grass species in all disturbed and active soil erosion sites; - Reuse unused soils for backfilling; - Provide adequate and concrete lined storm water drainage at the road rehabilitation and site office construction sites. and - Construct physical barriers (e.g. silt trap fences, sediment basins, containment booms, etc.) around the bridge going under rehabilitation or replacement.	Number of soil and silt traps or basins installed in all soil erosion active sites Number of trees cut outside the PPZ				
4	Increased risk of generation of hazardous	Develop and implement a robust waste management	Waste Management Plan in place	Inspection to the project site Review of management plans, MoU and monthly	Contractor, Monitoring Consultant, ANE PIU	Weekly Weekly Monthly	2,000.00

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No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
	and non-hazardous waste in the project area	plan, which include annual waste audits; • Implement a policy of waste sorting, recycling and re-use; • Provide workers at the rehabilitation, campsite and site administration office with well-labelled dustbins; • Agree and sign Memorandum of Understanding (MoU) with communities on types of wastes to collect, recycle or re-use for various purposes; • Prohibit littering around the rehabilitation site; • Remove and dispose of general waste that cannot be recycled and reused, at the designated landfill in line with local municipality regulations ; • Provide male and female staff with mobile toilets; • Store all hazardous materials in a bunded area on impervious floor with drainage and collection sump to retain leaks and spills; and • Optimize use of water to reduce the amount of wastewater generation.	Number of well-labelled dustbins present at the rehabilitation site Number of MoU signed with local community groups Tons of waste recorded as being disposed in authorized waste facilities	and quarterly progress reports	Third Party Monitoring Agent	Mid-term of project + End of project	

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No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
5	Increased risk of loss of biodiversity (Fauna & Flora) and natural habitats	• Develop and implement Code of Conduct and Disciplinary/ Penalty measures for workers; • Develop Concept designs with adequate road safety measures – warning signs and traffic calming measures (e.g. strip rumble surfaces and humps, light deflectors on roadside to reduce wildlife crossings); • Prohibit wildlife poaching; • Prohibit workers from using firewood/charcoal; • Avoid cutting down any trees outside the project impact area; • Do not cut any trees with bird nests and holes; • Open canteens where workers can buy meals and/or provide food to workers; • Plant five site indigenous trees for every single tree to be cut down during land clearing; • Prohibit introducing invasive alien plant species in the project sites; • Develop and enforce no fire Policy in the project area;	Code of Conduct in place Road Design Concepts available Number of wildlife killed Number of trees cut down Number of trees planted to offset the loss	Inspection to the project site Review of monthly and quarterly site reports Regular inspections, verification of monitoring data	Contractor, Monitoring Consultant, ANE PIU National parks/Hunting + forestry concessions/local authorities Third Party Monitoring Agent	Weekly Weekly Monthly Monthly Mid-term of project + End of project	20,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		• Support and finance biodiversity law enforcement activities in the project area; • Prohibit workers from buying bush meat from local communities; • Assess the cost benefit and practicability of investment in wildlife detection systems with signage that alerts drivers when animals are nearby as part of the detailed design phase, along with enhancing speed regulations. Enforcing lower speed limits in areas with frequent wildlife crossings will help reduce collision risk; • Continued animal movement mapping, to better monitor and understand key animal movement corridors across the N1 road, to continue to identify areas where animals, are most likely to attempt crossings, • Launch campaigns to educate drivers on wildlife risks, including signage, speed reductions in key areas, and information about wildlife crossings. This will involve local communities and park authorities in monitoring and					

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No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		managing wildlife passages, which can increase ownership and long-term success; - Avoid excavating in all water crossings; and - Include these measures in ESMP and Bidding Documents Bill of Quantities.					
6	Increased risk of noise pollution and vibration in the project area	- Technical design of the project must comply with international noise standards, particularly when passing through communities; - Inform communities in advance living around the project sites and associated facilities when noisy and vibration activities will occur; - Road and Bridge rehabilitation is considered “Light Industry”, so workers shall not be exposed to noise levels over 50-65 dB(A), over an eight hour working period. - For off-site noise levels, such as near the houses, schools, health centers, churches, etc., during daytime, shall be below 55 dB(A), during a one hour period.;	Number of bridges rehabilitated Number of workers provided with PPEs Number of households sensitized of noise pollution and vibrations	Inspection to the project site Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	5,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		• Early identify and assess Project associated facilities and propose mitigation measures to address noise and vibrations to emanate from these facilities; • Purchase primary supplies (e.g. gravel, quarry and river sand) from licensed suppliers to minimize E&S indirect risks and impacts associated with these activities; • All heavy equipment and machinery shall be fitted with noise pollution control devices (i.e., silencers) that are operating correctly and efficiently; • Use modern asphalt plants fitted with noise-proof enclosures and noise dampening materials; • Construct noise barriers and partitions around the asphalt plants to prevent the spread of noise to communities; • Provide all workers with PPE (e.g., ear muffers) in high noise exposure areas. • Orient and train drivers on driving good practices (e.g. speed management, switching					

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		off engine of vehicles and machinery not in use); - Optimize movement of vehicles and machinery to reduce noise; - Minimize engine idling time; and - Periodic medical hearing checks (recommended every 3 months) should be performed on workers exposed to high noise levels.					
7	Increased risk of the spread of HIV and AIDS and STIs	- Develop and implement HIV and AIDS Workplace Policy; - Regularly sensitize workers and local communities about HIV and AIDS, and STIs, and links with risks of SEA/SH; - Distribute HIV and AIDS information and education materials to workers and local communities; - Mobilize and put condoms in strategic places where workers can easily access them; - Allow infected workers to access Anti-Retroviral and STIs Treatment (ART) from hospitals and health centers; - Provide financial literacy sensitization programs to the surrounding local communities;	HIV and AIDS Workplace Policy Number of HIV and AIDS information and education materials distributed to workers and local communities Number of male and female condoms put in strategic places for use	Inspection to the project sites Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	3,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		- Employ people from the surrounding project area to minimize promiscuity; and - Sensitize workers on putting their income to productive use.					
8	Increased Occupational Health and Safety (OHS) Risks and Hazards	- Define an Occupational Health and Safety Policy and have an OHS plan for all the construction activities; - Prepare method statements and risk assessments for prior approval by the Engineer before commencement of activities. - Orient workers every day on identification of potential risks and hazards and application of appropriate mitigation strategies; - Prepare and implement emergency preparedness response, including extreme events (e.g. cyclones, floods, storm rains, etc.). Emergency response extends to production and use of hazardous substances such as hot asphalt; - Maintain a well-stocked first aid kit at the project area;	Number of orientation programs given to workers on OHS Number of workers provided with PPE Number of First-Aid Kits available at the rehabilitation sites Number of workers trained on administering First-Aid and applying First Aid Kit on affected workers	Inspections to the project sites Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	5,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		• Train some workers on application of First Aid and use of First Aid Kit; • Develop and implement penalties for recurrent non-compliances of mitigation measures related to the Contractor OHS plan; • Develop and implement a Code of Conduct, which includes prohibitions against SEA/SH and any sexual contact or activity with minors (persons under 18); • Implement good house-keeping practices such as sorting and placing loose pieces of construction materials or demolition debris in established areas away from foot paths. • Train workers in appropriate lifting and material handling techniques; • Prohibit working against working with defective equipment; • Implement good housekeeping by regularly cleaning excessive waste debris and wastewater spills from the construction sites;					

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		• Construct temporary shade places at each project site for workers to rest to avoid heat related hazards; • Ensure sufficient barricading to protect workers and the public from risks of construction activities; • Ensure workmen's compensation policy is up to date; • Ensure all drivers sign a vehicle policy for safe driving behavior and be aware of consequences for infringements of the vehicle policy. • Ensure all vehicles are licensed and registered with up-to-date insurance policies. • Ensure all vehicles and machinery are well maintained and records kept up to date. Daily vehicle checks should be performed by all drivers and any anomalies attended by the workshop mechanics timeously, all evidences to be kept on file; • Prohibit the use of drugs and alcohol;					

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		- Provide for a safe work environment and adequate safety measures, training and protective equipment to all workers including hand, head, eye and ear protection and safety footwear; and - All workers shall be provided with adequate PPE (Personal Protective Equipment) for the tasks required to be undertaken, including sufficient respiratory equipment for activities generating high dust levels and adequate protection for working with hot asphalt.					
9	Increased risk of Physical hazards	- Design machines to eliminate trap hazards and ensuring that extremities are kept out of harm's way under normal operating conditions. - Turn off, disconnect, isolate, and de-energize (Lock Out and Tag Out) machinery with exposed or guarded moving parts. - Design and install equipment, where feasible, to enable routine service, such as lubrication, without removal of the guarding devices or mechanisms.	Number of machines designed to eliminate trap hazards	Inspections to the project sites Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	2,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
10	Increased risk of Chemical hazards	- Replace the hazardous substance with a less hazardous substitute; - Implement engineering and administrative control measures to avoid or minimize the release of hazardous substances into the work environment keeping the level of exposure below internationally established or recognized limits; - Stored all hazardous chemicals in a secure area marked with adequate warning signs and provision for emergency response in case of accident; - Reduce number of employees exposed to chemical hazards to a minimum, ensure adequate training of use of hazardous substances and provide proper protective equipment must be used for substances such as hot asphalt including adequate respiratory equipment and body protection.	Number of incidents related to exposure to chemical hazards Number of spills of chemicals recorded	Inspections to the project sites Review of monthly and quarterly reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	3,000.00
11	Increased risk of hazards of working in confined	Implement engineering measures to eliminate, to the degree feasible, the existence	Number of safety measures instituted at the		Contractor, Monitoring Consultant, ANE PIU	Weekly Weekly Monthly	1,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
	workplace spaces	of and adverse character of confined spaces; • Adopt measures to avoid employees working in confined spaces for a long time in area without sufficient ventilation; • Provide permanent safety measures for venting, monitoring, and rescue operations of a confined space and use the permit to work system to ensure adequate measures are considered.	confined workspace Number of hazardous substances substituted with less hazardous substances Number of workers reduced at the confined space working site		Third Party Monitoring Agent	Mid-term of project + End of project	
12	Increased risk of hazards of working at height	• Conduct detailed risk assessment prior any works starting; • Provide appropriate training to all workers working at heights (e.g. use of equipment such as scaffolding and ladders), emergency evacuation procedures and proper use of PPE; • Choose appropriate equipment (e.g. suitable ladders and scaffolding, use of equipment that meets safety standards). Scaffold plans should be approved prior to implementation;	Number of workers provided on job-training on working at heights and appropriate equipment Types of fall prevention equipment given to workers for safety	Inspections to the project sites Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	3,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		• Install guardrails with mid-rails and toe boards at the edge for any fall hazard area; and • Develop and implement safe work practices (e.g. avoid working at height wherever possible). • Use of fall prevention devices, including safety belt and lanyard travel limiting devices to prevent access to fall hazard area, or fall protection devices such as full body harnesses used in conjunction with shock absorbing lanyards or self-retracting inertial fall arrest devices attached to fixed anchor point or horizontal life-line; • Appropriate training in use, serviceability, and integrity of the necessary PPE; and • Inclusion of rescue and/or recovery plans, and equipment to respond to workers after an arrested fall. •					
13	Increased risk of fire and explosion	• Install fire detectors, fire-fighting equipment and fire-	Number of fire detectors installed at the	Inspections to the project sites	Contractor, Monitoring Consultant, ANE PIU	Weekly Weekly Monthly	3,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		alarm systems at the campsites and site office; • Conduct regular inspections of machinery and equipment service and maintain all electrical equipment as per manufacturer recommendations; • Eliminate common ignition sources (e.g. smoking, welding, open flames, cutting, etc.) at the campsites and site office; • Implement good housekeeping practices (e.g. maintain cleanliness by controlling fugitive dust) at the Campsites and site office; • Train and orient some employees on fire hazards, prevention techniques, emergency procedures, and proper use of fire fighting equipment; and • Prohibit firewood for cooking meals by workers.	workers' campsites and at administration site office Number of workers trained on fire prevention techniques	Review of monthly and quarterly reports	Third Party Monitoring Agent	Mid-term of project + End of project	
14	Increased poor health and sanitation at the workplace	• Develop and implement workplace hygiene and sanitation policy; • Provide workers in campsites, site office and front workers with well-labelled dustbins;	Number of well-labelled dustbins put at workers' campsite and site	Inspections to the project site Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project +	1,500.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		- Implement good housekeeping practices (e.g. maintain cleanliness by controlling fugitive dust) at the campsites, rehabilitation site and at the site office; - Wash utensils regularly with clean water; - Wash hands regularly with plenty of water and soap; - Drink and use safe potable water, i.e. ensure water from wells/boreholes is tested for potability and treated appropriately if required (use of chemicals or boiling), prior to consumption; - Boil, cook food well and keep it covered before eating; - Provide workers with separate mobile toilets for female and male workers; - Allow workers to access treatment when sick; and - Provide workers at work fronts with potable water for drinking (e.g. from water dispensers or bottled water).	administration office Workplace hygiene and sanitation Policy Tons of rubbish collected and disposed of at authorized waste disposal sites			End of project	
15	Increased risks of community	Develop and implement a robust traffic management plan, with specific traffic control sketches for complicated traffic	Traffic Management Plan available	Inspections of the project sites	Contractor, Monitoring Consultant, ANE PIU	Weekly Weekly Monthly	3,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
	health and safety	management sections, e.g. half-width traffic management; • Develop community health and safety plan; • Restrict access to/barricade the rehabilitation/construction site, excavated roadside drains and borrow pit sites and use warning signs; • Raise sensitization campaigns and awareness on traffic management in community areas and on the project site; • Limit vehicle speed to 20 km/h or less on roads that are close to populated areas, trading centers, schools and health centers; • Develop and implement borrow pit management plan; and • Locate borrow pits and quarry mines (500 m -1.0 km) away from schools, health centers, markets, churches/mosques, play grounds, and ecologically sensitive areas. • Signs must be kept clean and well maintained if they are to be effective; • Develop specific measures for pedestrian safety, such as crossing locations taking into	Number of sensitization awareness and campaigns conducted to communities Presence of vehicle speed warning signs fixed along the corridor	Review of monthly and quarterly reports	Third Party Monitoring Agent	Mid-term of project + End of project	

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		consideration the community's preference, as well as pedestrian safety awareness. This includes considering pedestrian access on any detours that may be required. • Press and radio releases to warn drivers and pedestrians of what to expect at a site, thus must minimize impatient and dangerous behavior; • Workers who control traffic must be properly trained; and • Traffic controllers and general road workers should wear suitable conspicuous clothing to ensure that they can be seen by motorists.					
16	Increased risk of disruption of traffic due to road rehabilitation and improvement works	• Develop and implement a robust traffic management plan; • Ensure all vehicles adhere to maximum speed limits of 20 km/h in areas where activities are being undertaken; • Provide temporary detour/diversions for some vehicles to avoid obstruction of traffic, where possible; • Provide adequate road warning signs to properly guide traffic, control speed and warn road	Traffic Management Plan available Presence of adequate vehicle speed warning signs fixed along the corridor Number of road flagmen	Inspections of the project sites Review of monthly and quarterly reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	3,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		users about the construction works; and • Deploy flag persons who are well trained in understanding how to undertake good traffic management, particularly half-width traffic management. •	employed and deployed along the rehabilitated road section				
17	Increased risk of the spread of COVID-19 and other communicable outbreaks among workers	• Enforce all workers to wash hands regularly with soap or use hand sanitizer; • Reduce overcrowding by dividing workers into small groups of 5-10 people; • Workers must cover their mouth and nose when coughing and sneezing using handkerchiefs or tissue paper or sneeze into a flexed elbow; • Provide face masks to all workers; • Workers should keep a social distance of one meter from one another all the time; • Sensitize workers regularly to refrain from touching their faces, mouths, noses and eyes and to avoid handshakes; and • Isolate any worker who has symptoms associated with Covid-19 from others. •	Number of workers provided with face masks Availability of handwashing facilities at the project site Number of workers attending sensitizations	Inspections to the project sites Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	1,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
18	Increased risk of the spread of cholera and other communicable diseases	- Wash hands and utensils regularly with clean water; - Wash vegetables and fresh fruits with clean water before cooking or eating them; - Drink and use safe water (e.g. water drawn from taps, kiosks, and bottled water) for cooking; - Treat water drawn from wells with chlorine or household bleach; - Boil or filter drinking water drawn from wells; and - Boil, cook food well and keep it covered before eaten.	Availability of handwashing facilities and soap at the project site Number of sensitizations conducted to workers	Inspections to the project sites Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	1,000.00
19	Increased risk of GBV/SEA/SH/VAC	- Develop and implement GBV/SEA/SH workplace policy; - Periodically sensitize workers and surrounding local communities on causes and consequences of GBV/SEA/SH - Develop and implement a clear SEA/SH reporting procedure, including referral pathway for GBV survivor support services - Implement the Code of Conduct (CoC) for a contractor and workers for GBV/SEA/SH/VAC;	Availability of GBV/SEA/SH/VAC Workplace Policy Availability of Code of Conduct for contractor and workers Number and % of workers who signed Code of Conduct Number of	Inspections to the project site Review of Code of Conduct, Workplace Policy and police cases	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	3,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		- The contractor and all workers shall sign and adhere to Code of Conduct (CoC); - Institute disciplinary actions (job dismissal, interdiction) against perpetrators of GBV/SEA/SH; and - Take and/or report perpetrators of GBV/SEA/SH to relevant authorities for prosecution.	workers who attended SEA/SH training Number of SEA/SH complaints reported to the GRM Number of SEA/SH cases disaggregated by adult/children and by sex Percentage of SEA/SH survivors who report to the GRM and are referred on a timely basis to GBV holistic services Number of workers disciplined during the course of work				

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
			Number of participants in GBV/SEA/SH/V AC community workshops Number of GBV/SEA/SH/V AC community workshops conducted				
20	Increased risk of Labor influx to the project sites	- Develop and implement Contractor's Labor Management Plan in line with Labor Management Procedures (LMP) and World Bank ESS2; - Employ most of the unskilled workforce from the surrounding project area; - Inform job seekers regularly about jobs available and where they can apply for available positions; - Engage local authorities and leaders in each sub project area to assist in recruitment of semi and unskilled workers by the contractor;	Availability of Labor Management Plan Job opportunity notices posted at the gate Number of workers employed from the surrounding project area disaggregated by sex and age	Inspections to the project site Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	1,500.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		- Prohibit child labor (under the age of 18 years) working directly or indirectly at the project site; - Develop and implement robust guidelines to address issues of human trafficking, GBV/SEA/SH and Violence against Children (VAC) and Forced Labor; - Train local governance institutions and the police to address issues of human trafficking, GBV/SEA/SH, Violence against Children (VAC) and Forced Labor; and - Conduct GBV/SEA/SH awareness raising and train PIU staff and use third party service providers to assist with implementing mitigation measures on labor influx risk related to SEA/SH risk and impacts.					
21	Risks of loss of Cultural Heritage	- Avoid constructing camp sites and offices in all areas with spiritual, historical and cultural connotation; - Public access to cultural heritage sites (crosses, churches/mosques, cemeteries shall be maintained at all times during the works; - Develop and implement chance	Number of new Archeological and/or historical sites found Number of damaged historical or archeological materials/objects	Review of monthly and quarterly reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	1,500.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		finds procedure and Cultural Heritage C-ESMP; - Construction works must immediately be stopped in case of accidental discovery of new artifacts and archaeological sites and resume the works after the site has been archeological discharged by authorized archeologists; - All previously recorded archaeological site must be mapped/reported at the onset of the works and to workers; - Use an alternative non-invasive route/corridor should existing route(s) have the potential to affect any identified cultural heritage sites; - Any damage to any known cultural heritage sites must be repaired or restored; and - Train Project workers on the recognition of sites with historical or cultural value and the actions to be taken in the event of any sites or finds be encountered.	repaired and restored				
22	Loss of land and property within PPZ	- Ensure road rehabilitation and improvement works are implemented within the PPZ, in order to avoid or minimize resettlement; - Avoid opening of new quarries and borrow pits; - Obtain quarry and gravel from existing sites of licensed	Ha. of land outside PPZ encroached Number of new borrow pits and quarries opened	Inspections to the project sites Review of monthly and quarterly reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	2,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		suppliers who have an ESMP in place; - Carry out sensitization meetings on planned project activities and likely impacts including loss of land/property with local communities directly or indirectly affected, in the case of additional land requirements for detours/access roads/borrow pits/quarries; - Develop and implement livelihood restoration plans (LRP) for the affected people that are vulnerable.	Number of people attending sensitization meetings conducted to local communities				
23	Increased risk of disruption of utility services	- Inform the public utility service providers in advance of planned road rehabilitation works and the need to relocate utility services; - Restore utility services as soon as possible; - Provide information to the users about disruptions and reinstatement of public utility services - Assist users on identification and recommend use of alternative services providers, whenever possible.	Letters written to public utility service providers Number of households informed about disruptions of utility services	Site inspections Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	2,000.00
24	Loss of houses and ancillary infrastructures	- Ensure road rehabilitation and improvement works are implemented within the PPZ in order to avoid or minimize compensation; - Provide compensation for demolished houses and	Ha. of land outside the PPZ encroached Number of Project Affected	Inspections to the project sites Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project +	2,000.00

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No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		ancillary infrastructures (e.g. kitchen, toilets, fences, etc.), as there is no need to displace the household; • Provide alternative land for house construction (resettlement area) in case of main house is demolished; • Assist the affected people in construction of the new house in the resettlement area through hiring a contractor to build the resettlement village whenever necessary; • Train the PAPs on financial and business development and management; and • Assist the vulnerable groups with business plans and to save their compensation money with banks available.	Persons (PAPs) received compensation Number of PAPs trained in financial and business management			End of project	
25	Loss of crops and trees (commercial)	• Prepare a Resettlement Plan if required and document all the compensation process; • Provide compensation to PAPs for loss of crops and trees; • Provide fruit tree seedlings to PAPs to offset the loss; • Develop and Implement a Livelihood Restoration Plan (LRP) for all affected people including vulnerable groups.	Numbers of PAPs compensated Quantity of crops and number of fruit trees lost which are compensated for	Inspections to the Project sites Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	2,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
			Availability of Livelihood Restoration Plan				
26	Loss of business infrastructure	• Prepare a Resettlement Plan if required and document all the compensation process; • Provide alternative land for businesses or market establishment outside the Road Reserve Area (PPZ); • Provide a compensation for demolished business infrastructures (e.g. Shops, vending stalls, etc.); • Develop and Implement a Livelihood Restoration Plan (LRP) for all affected people, including vulnerable groups	Quantity of alternative land provided Numbers of PAPs compensated Quantity of demolished infrastructures compensated for Availability of Livelihood Restoration Plan	Inspections to the Project sites Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	2,000.00
27	Loss of income and livelihoods	• Provide compensation to replace the income losses for all affected people in these businesses. The compensation amount can be calculated based on business profits earned by each individual in the business; • Provide alternative land for businesses and/or establishment of a new market outside the PPZ; • Hire the affected people or their relatives to work for the project (e.g., construction workers, affiliates in micro-enterprises, GBV activists, etc.); • Provide training on financial literacy for affected people	Availability of a compensation Plan Numbers of PAPs compensated Availability of Livelihood Restoration Plan	Inspections to the Project sites Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	2,000.00

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No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		(e.g., Management of the compensation payment and small business management) Support affected people (business owners) and their workers to find other job opportunities.					
28	Increased risk of social conflicts	- Disclose any job opportunity related to the project - Prioritize hiring of local labor for the project (e.g., Construction works, affiliates in micro-enterprises, GBV activist, etc.); - Provide training on road maintenance for community members, mainly women in order to provide services to the project. - Support local entities to undertake price inspections in the local markets, whenever possible; and - Support local entities in organization of trade fairs, whenever possible.	Number of local workers employed segregated by gender Number of trainings given to community groups/members on road rehabilitation and maintenance Number of trade fairs supported by ANE PIU	Inspections to the project sites Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	1,500.00
29	Increased vulnerability of vulnerable groups	- Ensure that vulnerable group are informed and participate in project related activities (e.g., public consultation, decision making about resettlement areas, etc.) - Sensitize and psychologically prepare the group for the entire resettlement process; - Prioritize this group in all mitigation measures related to	Number of vulnerable groups of people involved in project related activities segregated by gender	Inspections at the project sites Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	1,500.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		- them; - Provide a subsidy for this specific group as way to become self-sufficient and resilient to economic stress; - Provide assistance in transport during resettlement process.	Number of household sensitized about resettlement process Number of households provided financial subsidies segregated				
30	Increased theft and vandalism of road rehabilitation/ construction materials	- Construct secure storeroom(s) for storage of construction materials; - Secure the entrance of a storeroom; - Engage the Mozambique Police Service to vet security personnel to be employed at the construction project site; - Deploy rigorously-vetted security personnel to guard the construction materials and other property; - Secure vulnerable materials (e.g. cement, lime, brick-force wire, planks, paints, tiles, solignum, etc.) with appropriate barriers; - Record all incoming and outgoing construction materials in register book; - Restrict entry to the storeroom(s) - Conduct sensitizations of workers on consequences of	Number of workers vetted by the Police Service during the recruitment process Number of security personnel deployed to the project site Number of secure storage facilities constructed at the project site Number of cases of theft and vandalism	Inspections to the project sites Review of monthly and quarterly reports and cases of theft and vandalism reported	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	3,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		theft and vandalism of construction materials and company property; and Install vandal proof materials at the construction project site.					
31	Increased energy and water use	- Sensitization of workers on use of energy and water efficiently; - Procure energy efficient equipment (e.g., solar equipment, generators); - Install and use alternative water and energy sources especially at peak hours (rainwater harvesting tanks, solar technologies etc.); - Store rainwater in tanks for basic water uses; - As early as possible, assess impacts and risks of water sources for camp sites and work fronts, particularly nearby communities so that if a negative impact is expected, proper procedures and criteria on water for equitable water sharing must be put in place; - Abstract water from licensed sources; - Acquire from responsible authority permit(s) for water abstraction; - Energy efficiency (on building design and equipment) (e.g.,	Number of sensitization meetings conducted with workers Alternative sources of water and energy installed at the project site	Inspections to the project sites Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	5000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		solar panels to heat water and produce electricity); and Conserve power and efficiently use water by switching electricity only if they are needed.					
32	Increased pressure on hydrological and water resources	- Ensure community water supplies are not affected by project use; - Use water harvesting technologies (e.g., water tanks) to capture rainwater for use during construction; - Recycle wastewater from active construction sites for reuse and - Avoid clearing of vegetation from sensitive areas (e.g., water catchment and along riverbanks).	Number of water conflicts recorded Number of water harvesting storage facilities used by the project Amount of land cleared of vegetation	Inspections to the project sites Review of and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	1,500.00
33	Interference with crossing routes or wildlife	- Take note of wildlife collision/poaching points and wildlife crossing points on the N1 in the Gorongosa-Caia (Km 84-168) section and prepare adequate traffic management measures for inclusion into designs, prior to any commencement of any construction works; - Detailed designs to include light deflectors to reduce wildlife crossings; - Prohibit unnecessary clearing of vegetation in the identified crossing routes for wildlife; - Prohibit any excavation works	Number of incidents with vehicles and wildlife Number of trees cut Number of stockpile areas in areas noted where wildlife crosses	Inspections to the project sites Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU National parks/Hunting + forestry concessions/local authorities Third Party Monitoring Agent	Weekly Weekly Monthly Monthly Mid-term of project + End of project	15,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		and heaping of construction materials (e.g. quarry, gravel) in these identified wildlife crossing routes. - Engage proactively with operators of concurrent Projects to coordinate activities, share monitoring data, and collaboratively develop strategies to minimize indirect and cumulative impacts. - Coordinate with GNP Directorate/Hunting & Forestry Concessions and local authorities on monthly basis to ensure cooperation with authorities in order to patrol, monitor and enforce law regarding illegal deforestation and hunting (particularly in GNP buffer zone) - Continue to implement procedure to monitor wildlife-car collisions by the Contractor or in cooperation with communities and GNP/Hunting & Forestry Concessions.					
34	Risks of quarry and borrow pits on the environment	Borrow sites should be located away from cultivable lands and settlements, and drinking water intake points;	Number of incidents where community is affected by	Inspections to the project sites	Contractor, Monitoring Consultant, ANE PIU	Weekly Weekly Monthly	2,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
	and community safety	- Quarries and borrow pits should be located in structurally stable area, even if some distance from construction site. Poorly excavated quarries and borrow pits can promote landslides and further aggravate maintenance and traffic flow resulting in higher overall costs; - The borrow pits and quarries should not be located near roadsides as they pose occupational health and safety risks (e.g., accidents and injuries) to motorists and the general public; - Extraction of sand and stone from seasonal rivers should be avoided due to the impact on complex flood hydrology, which can result in more serious storm floods; - Extraction of stone and sand should be spread over the longest length possible so that no section of riverbed is excessively disturbed; - Clearing of trees and other vegetation should be discouraged. Only those trees which are absolutely necessary to operate the sites should be cleared; - The site should be restored after completion of construction activities, and left in stable condition without steep slopes;	activities in borrow pits Number of landslides Number of safety incidents in borrow pit areas Area of soils exposed Quantity of vegetation removed as part of land clearance Number of trees replanted Area re-grassed during rehabilitation	Review of monthly and quarterly progress reports	Third Party Monitoring Agent	Mid-term of project + End of project	

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		- The restored site should be drained, and no standing water shall remain. Stagnant waters become disease vectors breeding site and pose a threat to public health; - The sites must always be closed and restored in a planned and appropriate manner to suit local conditions and in consultation with the concerned owners and/or community. It should be done before spreading equipment is allowed to leave the site; and - Land utilized for riverbed extraction and quarry site access roads should also be restored as applicable					
RISKS AND IMPACTS DURING DEMOBILIZATION/DECOMMISSIONING PHASE							
POSITIVE IMPACTS							
1	Improved landscape and scenery along the rehabilitated section of the road corridor	- Remove all debris from the project site to the designated dumpsite and must include a written record of final disposal site (to avoid dumping in uncertified sites); - Remove and use unused soils, concrete slabs and rubbles for backfilling and restoration of old quarries; - Dispose of all containers where hazardous materials were	Tons of debris collected and disposed of at the designated dumpsite or used for backfilling Ha. of disturbed land rehabilitated and restored along	Inspections to the project sites Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	2,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		stored at a designated site approved by MAAP and in line with national environmental legislation and guidelines; and - Rehabilitate and restore by planting indigenous trees, shrubs and grass in collaboration with licensed owners all quarries and borrow pits expected not to be used in future. - Ensure that contractor's implement the rehabilitation plans developed for management of borrow pits and quarries.	the section of the road corridor Availability of Contractor's Borrow Pits and Quarry Management Plan				
NEGATIVE RISKS AND IMPACTS							
1	Increased risk of soil erosion and land degradation	- Spray water to surface of temporary structures to be demolished at the project site; - Regularly spray water to the ground and unused soil, sand, concrete and quarry to suppress dust; - Implement good topsoil management according to International Good Practices and International Sector Guidelines; - Cover all vehicles carrying rubble, unused soil and sand to	Number of vehicles (e.g. tippers, trucks, etc.) carrying debris are covered with tarpaulins or thick plastic sheets Number of gullies, borrow pits and quarries rehabilitated using unused	Inspections to the project sites Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	2,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		the designated approved dumpsite by local council with tarpaulins or thick plastic sheets; and - Rehabilitate all active soil erosion sites at the project site; and - Re-use unused soils for backfilling.	soils and pieces of concrete Ha. of disturbed land rehabilitated using unused soils				
2	Increased risk of air and water pollution	- Erect a temporary fence barrier around active demolition site to shield spread of dust; - Periodically spray water on loose soils and concrete debris to suppress dust emission; - Prepare and implement best management practice for dust emission; - Cover all trucks transporting debris and unused soils with tarpaulins or thick plastic sheets; - Drive trucks carrying rubble slowly to prevent dust generation over communities and housing; - Store and handle sand and cement gently to limit dust emission; - Firmly compact loose soils on the demolition site to suppress dust; - Re-use unused soil and broken	Number of vehicles (e.g. tippers, trucks, etc.) carrying debris are covered with tarpaulins or thick plastic sheets Number of dust complaints received from organizations and individuals living around the road rehabilitation section	Inspections to the project sites Review of dust complaints from organizations and individuals, including monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	2,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		concrete removed during excavation for backfilling; - Minimize the amount of time that loose soil remain exposed off to wind and run-off; - Regularly service vehicles, machinery and equipment as per recommended in manual books; - Reduce engine idling time; and - Regularly inspect any oil engine leaks and immediately seal any leakage.					
3	Increased risk of noise pollution and vibrations	- Technical design of the sub project must comply with international noise standards, particularly when passing through communities; - Inform communities in advance living around the project sites and associated facilities when noisy and vibration activities will occur; - Road and Bridge rehabilitation is considered “Light Industry”, so workers shall not be exposed to noise levels over 50-65 dB(A), over an eight-hour working period. - For off-site noise levels, such as near the houses, schools, health centers, churches, etc., during daytime, shall be below	Number of households sensitized about impending noise and vibration from project activities Tons of quarry stones and gravel purchased from local licensed suppliers Noise and vibrations levels of between 50-65 dB(A)	Inspections to the project sites Review of dust complaints from organizations and individuals, including monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	2,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		55 dB(A), during a one-hour period.; • Early identify and assess Project associated facilities and propose mitigation measures to address noise and vibrations to emanate from these facilities; • Purchase primary supplies (e.g. gravel, quarry and river sand) from licensed suppliers to minimize E&S indirect risks and impacts associated with these activities; • All heavy equipment and machinery shall be fitted with noise pollution control devices (i.e., silencers) that are operating correctly and efficiently; • Use modern asphalt plants fitted with noise-proof enclosures and noise dampening materials; • Construct noise barriers and partitions around the asphalt plants to prevent the spread of noise to communities; • Provide all workers with PPE (e.g., ear muffers) in high noise exposure areas. • Orient and train drivers on driving good practices (e.g. speed management, switching					

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		off engine of vehicles and machinery not in use); - Optimize movement of vehicles and machinery to reduce noise; - Minimize engine idling time; and - Periodic medical hearing checks (recommended every 3 months) should be performed on workers exposed to high noise levels.					
4	Increased risk of generation of hazardous and non-hazardous waste	- Develop and implement a robust waste management plan to include a final waste audit; - Implement a policy of waste sorting, recycling and reusing; - Prohibit littering around the construction site; - Cover vehicles carrying rubble with tarpaulin to avoid spreading on the ground and on the road; - Provide male and female staff with mobile toilets; - Ensure that general solid waste is disposed of at the authorized locations by municipalities of Gorongosa and Inchope; - Ensure that used oil is collected and re-used or recycled by licensed handlers; and - Ensure that all hazardous waste is disposed of a	Tons of hazardous and non-hazardous waste generated and disposed of at the appropriate designated dumpsite Number of debris collection vehicles covered with tarpaulins Presence of oil and grease at the vehicle	In specifications to the project sites and dumpsites Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	2,500.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		registered hazardous waste facility (currently only available in Matola, Maputo at the Mavoco landfill site)	maintenance workshops Presence of litter on the ground				
5	Increased risk of climate change	• Use demolition equipment and machinery that emit low greenhouse gases; • Periodically service and maintain equipment/machinery in line with manual books; • Construction materials (e.g., wood/timber, stones, etc.) must be reclaimed for re-use in another project or subproject or donated to elderly people in villages for construction of their houses, minimize greenhouse gas emissions when buried in the ground or used as fuelwood; • Adopt and implement Climate Resilient Approach in Demobilization/Decommissioning Project of the subprojects; and • Avoid clearing vegetation outside the demolition area.	Number of equipment procures/hired that procures low greenhouse gases Number of trees and natural habitats cut down or cleared from the section of the road corridor	In specifications to the project sites and equipment procured/hired Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	1,500.00
6	Increased risk of the spread of	• Advise workers to regularly wash their hands with plenty of water and soap or use hand	• Number of workers provided	Inspections to the project sites	Contractor, Monitoring Consultant, ANE PIU	Weekly Weekly Monthly	1,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
	Covid-19 and other outbreaks	sanitizers if water and soap are not available at the project site; - Divide the workers into small groups and should work in shifts; - Encourage workers to cover their mouth and nose when coughing using clean handkerchiefs or tissue paper or flexed elbow; - Provide face masks to all workers and ensure they wear it at all times; - Advise workers to keep social distance from each other all the time; - Regularly sensitize workers to refrain from touching each other, their faces, mouths, noses and eyes and avoid handshakes.	with face masks - Availability of handwashing facilities at the project site - Number of workers who attended sensitization trainings and number of trainings	Review of monthly and quarterly progress reports	Third Party Monitoring Agent	Mid-term of project + End of project	
7	Increased risk of the spread of HIV and AIDS and STIs	- Implement existing HIV and AIDS Workplace Policy; - Regularly sensitize workers and local communities about HIV and AIDS, and STIs; - Distribute HIV and AIDS information and education materials to workers and local communities; - Mobilize and put condoms in strategic places where workers can easily access them;	HIV and AIDS Workplace Policy Number of HIV and AIDS information and education materials distributed to workers and local communities	Inspection to the project sites Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	1,500.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		- Infected workers must access Anti-Retroviral Treatment (ART) from hospitals and health centers; - Provide financial literacy sensitization programs to the surrounding local communities; - Employ people from the surrounding project area to minimize promiscuity; and - Sensitize workers on putting their income to productive use.	Number of male and female condoms put in strategic places for use				
8	Increased risks of occupational health and safety	- Before commencing work, the Contractor will be required to identify potential hazards for each work task; - Provisions for emergency responses are to be included in the Contractor's site safety plan which is to include nomination of a person who will be immediately contacted in case of an accident occur; - Develop a disciplinary policy, for example, progressively (oral, written warning, suspension and dismissal of the worker); - Conduct on site trainings to workers on Occupation Health and Safety; - All the workers must sign the Code of Conduct CoC);	Number of orientation programs given to workers on OHS Number of workers provided with PPE Number of First-Aid Kits available at the rehabilitation sites Number of workers trained on administering First-Aid and	Inspections to the project sites Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	3,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		- The Contractor must have/define its Occupational Health and Safety Policy; - The contractor will be required to keep the site free of drugs and alcohol; - The contractor 's site safety plan will include provision for a safe work environment and provide safety measures, training and protective equipment to all workers including hand, head, eye and ear protection and safety footwear; - All workers shall be provided with PPE (Personal Protective Equipment).	applying First Aid Kit on affected workers				
9	Increased risk of GBV/SEA/SH/V AC	- Develop and implement GBV/SEA/SH workplace policy; - Periodically sensitize workers and surrounding local communities on causes and consequences of GBV/SEA/SH - Develop and implement a clear SEA/SH complaint reporting and management procedure, including referral pathway for GBV survivor support services - Implement the Code of Conduct (CoC) for a contractor and workers for GBV/SEA/SH; - The contractor and all workers	Availability of GBV/SEA/SH/V AC Workplace Policy Availability of Code of Conduct for contractor and workers Number and % of workers signed Code of Conduct	Inspections to the project site Review of Code of Conduct, Workplace Policy and police cases	Contractor, Monitoring Consultant, ANE PIU Third Party Monitoring Agent	Weekly Weekly Monthly Mid-term of project + End of project	3,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		shall sign and adhere to Code of Conduct (CoC); - Institute disciplinary actions (job dismissal, interdiction) against perpetrators of GBV; and - Take and/or report perpetrators of GBV/SEA/SH to relevant authorities for prosecution with survivor consent.	Number of workers disciplined during the course of work Number of SEA/SH complaints reported to the GRM Number of SEA/SH cases disaggregated by adult/children and by sex Percentage of SEA/SH survivors who report to the GRM and are referred on a timely basis to GBV holistic services				
10	Increased risk of disruption of traffic due to demobilization	- Develop and implement a robust traffic management plan; - Ensure all vehicles adhere to maximum speed limits of 30 km/hr in areas where activities	Availability of GBV/SEA/SH/ AC/IPV	Inspections to the project sites Review of monthly and quarterly progress reports	Contractor, Monitoring Consultant, ANE PIU	Weekly Weekly Monthly Mid-term of project +	5,000.00

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
	and improvement works	- are being undertaken; - Provide temporary detour/diversions for some vehicles to avoid obstruction of traffic, where possible; - Provide adequate road warning signs to properly guide traffic, control speed and warn road users about the construction works; and - Deploy flag persons who are well trained in understanding how to undertake good traffic management, particularly half-width traffic management.	- Number of sensitization campaigns conducted - Availability of disciplinary actions developed - Availability of C-ESMP at the project site		Third Party Monitoring Agent	End of project	
• RISKS AND IMPACTS DURING OPERATION AND MAINTENANCE PHASE							
• POSITIVE IMPACTS							
1	Improved connectivity and access to markets within the corridor and beyond	- Regularly maintain the infrastructure; - Establish/Support/strength community policing committees at strategic places along the corridor to monitor and curb vandalism of road signs along the corridor; and - Robust Supervision and Monitoring of maintenance of the infrastructure.	- Number of community policing established and supported along the section of the road corridor - Timely maintenance of the section of the road corridor	- Inspections to the project sites - Review of monthly and quarterly progress reports	ANE, IP	Quarterly	Not Applicable (N/A) (to be included in ANE,IP's annual budget)

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
2	Improved road safety	- Sensitize communities to care for road signs - Establish/Support/strength community policing committees along the corridor to monitor and curb vandalism of road signs along the corridor; - Regular maintenance of the road infrastructure; - Replacement of signage once vandalized.	Number of households sensitized against vandalism of road signs along the road rehabilitation section Number of community policing committees established and supported Number of road signposts vandalized along the road section	Inspections to the project site Review of monthly and quarterly progress reports	ANE, IP Community Policing Committee members	Quarterly Quarterly	Not Applicable (N/A) (to be included in ANE,IP's annual budget)
3	Reduced costs of transportation of goods and services due to less consumption of fuel or gas by vehicles	- Regularly inspect and maintain the road surface by sealing any potholes, cracks and other surface issues; and - Regularly maintain any broken roadside culverts or drainage pipes.	Length of the section of the road sections maintained	Inspections to the project site Review of monthly and quarterly progress reports	ANE, IP and Contractor	Quarterly	Not Applicable (N/A) (to be included in ANE,IP's annual budget)

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
• NEGATIVE IMPACTS AND RISKS							
1	Increased deforestation along the rehabilitated road sections	- Law enforcement must be implemented by appropriate authorities for those found poaching or cutting down trees without authorization; - Establish roadblocks at strategic places to curb transportation of fuel wood (charcoal, firewood) to urban centers and cities of the country; - Police and officers from Departments of Forestry and National Parks/Game Reserves shall conduct regular monitoring and spot check of vehicles, in particular, trucks and lorries; - Impose heavy fines and/or penalties to any contractor or his worker found breaking the Forestry and Wildlife Decrees and regulations.	Number of roadblocks mounted along N1 corridor Number of heavy penalties imposed on any Contractor, Vehicle drivers violating wildlife and forestry laws and regulations	Inspections to the project site Review of monthly and quarterly progress reports	ANE, IP Contractor Police and Officers from the Department of Forestry and National Parks/Hunting & Forestry Concessions	Quarterly	To be included in ANE,IP's annual budget, if required/possible
2	Wildlife population reduction caused by increased hunting, road kills and	- Develop and implement Code of Conduct on wildlife poaching and trade; - Prohibit workers and job seekers against poaching of and/or illegal trade in wildlife animals; - Institute disciplinary measures	Number of Code of Conduct signed by Contractor workers responsible during	Inspections to the project site Review of monthly and quarterly progress reports	ANE, IP Contractor (under OPRC the contractor is supposed to maintain the road for 8 out of the 10 years of the contract after the	Quarterly	Not Applicable (N/A) (to be included in ANE,IP's annual budget)

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
	forestry operations	on any wildlife poaching and trade; and Prosecute appropriately any worker to be found poaching or in possession of wildlife and/or their products.	maintenance phase Number of workers prosecuted due to wildlife poaching		first 2 years of rehabilitation) Police and Officers from the Department of Forestry and National Parks/Hunting & Forestry concessions		
3	Increased risks of Road safety	- Sensitize all road users about the road maintenance works being carried out; - Install sufficient warning signs in strategic places along the road; - Barricade all sites under active maintenance with high visibility barricade material; and - Regulate movement of vehicles. - Regularly monitor wildlife road kills in rehabilitated road sections. - Develop and implement a robust Traffic Management Plan for the Maintenance Phase which should be monitored and updated whenever needed.	Number of road warning signs put in strategic places along the road section maintenance Number of risk sites barricaded Availability of Road Traffic Management Plan	Inspections to the project site Review of monthly and quarterly progress reports	ANE, IP Contractor Police Traffic Officers	Quarterly	Not Applicable (N/A) (to be included in ANE,IP's annual budget)

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
4	Urban expansion into agricultural land	- Urban areas must be zoned properly to avoid encroachment of agricultural land; - Encourage developers in urban areas to build infrastructure vertically as opposed to laterally to reduce demand for new land; and - Enforce town/urban by-laws on urbanization expansion	Ha. of PPZ encroached by community members Number of urban infrastructures constructed vertically as opposed to vertically	Inspections to the project site Review of monthly and quarterly progress reports	ANE, IP Contractor Police Officers Ministry of {Planning and Development	Quarterly	Not Applicable (N/A) (to be included in ANE,IP's annual budget)
5	Increased risk of theft and vandalism of road signs and roadside guard rails	- Use perforated materials when making road signs; - Use anti-theft fasteners when fitting the road signs to a pole; - Use road sign poles that are made of concrete with round bar steel inside as opposed to poles made of metal steel or wood as they are prone to theft; - Install road signs at a greater height to make it difficult for thieves to easily remove them; and	Number of road signs made of perforated materials Number of road signed fastened by anti-theft fasteners Number of road signs installed at a greater pole height Number of road signs vandalized and reinstalled	Inspections to the project site Review of monthly and quarterly progress reports	ANE, IP Contractor	Quarterly	Not Applicable (N/A) (to be included in ANE,IP's annual budget)

Environmental and Social Management Plan

No	Potential Environmental /Social impacts	Proposed Mitigation / Enhancement Measures	Performance indicators	Means of verification(s)	Responsibility For Monitoring Implementation of Mitigation Measures	Frequency of monitoring	Estimated Cost (US\$) for ESMP Monitoring
		Reinstall immediately all vandalized or stolen road signs.					
6	Potential negative impacts on water, air quality, noise and vibration, depending on the nature of rehabilitation/maintenance required	As during the construction phase	Water quality, air quality, noise and vibration levels to remain within acceptable limits	Water quality testing, air quality testing, noise and vibration tests	ANE, IP Contractor	Monthly/Quarterly/Bi-annually	20,000.00
Total Estimation for the Implementation of ESMMP					142,500.00		

Environmental and Social Management Plan

4 ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLANS

This section outlines the environmental and social management plans that aim to prevent and, where not possible, mitigate potential negative impacts resulting from the Project and its associated activities.

The following plans are included:

- Air Quality Monitoring Plan
- Noise and Vibration Monitoring Plan
- Soil and Erosion Monitoring Plan
- Water and Effluent Quality Monitoring Plan
- Waste Management Plan
- Biodiversity Management Plan
- Archeology and Cultural Heritage Management Plan
- SEA/SH Prevention and Response Action Plan
- Labor Influx and Working Conditions Management Plan
- Community Health and Safety Management Plan
- Occupational Health and Safety Management Plan
- Traffic Management Plan
- General Guideline for Use of Security Personnel in the Project Protection Security Management Plan
- Resettlement Plan
- Grievance Redress Mechanism
- Emergency Preparedness and Response Management Plan

Environmental and Social Management Plan**4.1 Air Quality Monitoring Plan**

Air Quality Monitoring Plan	
Scope of Management Plan	This Air Quality Monitoring Plan (AQMP), applies to the construction and operation/maintenance phase of the Project. All Contractors, sub-contractors, and third-party service providers are required to adhere to this plan to ensure the consistent and proper execution of environmental and social (E&S) management and mitigation measures throughout the Project's duration.
Relevant Standards	• Mozambique Resolution 5/1995: National Environmental Policy • Mozambique Law No. 20/1997: Environmental Law • Decree No. 18/2004 as amended by Decree No. 67/2010: Environmental Quality and Effluent Emission Standards Regulations • WHO Ambient Air Quality Guidelines • WB ESS2, ESS4 • WB EHS Guidelines (these being more stringent than local legislation, will be followed)
Roles and Responsibilities	• Contactor Project Manager ○ Responsible for the provision of adequate financial, labor and equipment resources for the full implementation of this Air Quality Management and Monitoring Plan. ○ Accountable for any significant deviations from this AQMP resulting in non-compliant ambient air quality and any ensuing adverse Environmental and Social (E&S) impacts. ○ Responsible for authorizing/approving any changes or modifications to this program as necessary due to inspection outcomes or identified optimization opportunities. ○ Responsible for quarterly review of all performance reports and KPIs regarding this AQMP and approving any changes based on the data collected. ○ In conjunction with the Contractor Environmental Manager/Director, responsible for ensuring and approving all remedial/corrective actions required, from the outcomes of the Exceedance Investigation Procedure, and ensuring they are fully implemented and resolved. • Contactor Environmental Manager/Director ○ Communication with the Contractor Project Manager for securing all provisions required for the full implementation of the AQMP. ○ Accountable for any significant deviations from this management plan. ○ Identifying corrective actions required for rectifying any non-compliance with this AQMP. ○ Responsible for appointment of an Appropriately Qualified Technician (AQT) with a minimum of 5 years' experience of environmental air quality monitoring, preferably with experience in the construction sector. ○ Responsible for ensuring adequate provision of Personal Protective Equipment (PPE) such as particulate respirators and dust goggles. ○ If necessary, proposing changes or modifications on the plan based on the training identification needs.

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Air Quality Monitoring Plan	
	○ Responsible for liaising with the Project Manager to approve and allocate sufficient resources for changes recommended by the AQT to rectify any exceedances, including potential equipment and fuel changes, if necessary. ○ Reporting compliance with this AQMP and air quality KPIs to the Contactor Project Manager. ○ Overseeing on-site implementation of this plan with support from HSSE supervisors and officers as well as the safety inspectors and Contactor Environmental Specialist. ○ Reporting compliance any deviation of this AQMP and its KPIs to the Project Manager. ○ Responsible for validating and filing air quality monitoring and calibration reports, in association with the AQT, and ensuring that air quality measurements are conducted on a regular basis, according to this AQMP. ○ Identifying and reporting to the Contactor Project Manager any training needs according to the activities or phase of the project to improve Air Quality Management. ○ Responsible for arranging and facilitating for the AQT to effectively conduct air quality measuring and monitoring. ○ In collaboration with the Contractor Environmental Specialist and AQT, conduct Exceedance Investigation Procedure as necessary. ● Contractor's Contract Manager ○ In conjunction with the Contractor's Environmental Manager/Director and Contractor's Project Manager, the Contractor Contract Manager will be responsible for the development of a contractual agreement with the AQT for air quality monitoring and sampling. ○ Responding to any findings from internal audits and inspections, including acting to change contracts if needed, in accordance with the HSSE requirements as appropriate. ○ During the increase of construction activity, the Contractor's Contract Manager will coordinate with the Contractor Environmental Manager on any new and developing requirements needed due to evolving circumstances. ● Contractor Environmental Specialist ○ On-site monitoring of this AQMP. ○ Supervise and facilitate the AQT's activities while on-site, including sampling, measuring, site inspections and provision of any data/records relating to dust and emission sources. ○ Support and coordination of the quarterly air quality inspection. ○ Conduct regular site inspections to ensure the full implementation of this AQMP. ● Contractor Construction Manager ○ Responsible for ensuring that all construction workers fully understand and abide by the measures and procedures outlined in this AQMP.

Environmental and Social Management Plan

Air Quality Monitoring Plan		
	○ Facilitate all sampling and investigation activities in relation to air quality carried out by members of the HSSE team and the AQT. ○ Responsible for coordinating with the Environmental Manager and HSSE Supervisors on procedures concerning dust suppression. ○ Responsible for overseeing the proper loading and storage of any construction material that can potentially cause dust accumulation (e.g., excavation material, gravel, sand etc.) and ensuring that mitigation measures are enforced. ● Appropriately Qualified Technician (AQT) ○ Responsible for choosing/updating appropriate air quality monitoring sampling locations based on his/her experience and provide reasonable justification for chosen sampling sites. ○ Responsible for undertaking a regular air quality monitoring program, and analyzing results in comparison to the applicable standards and guidelines for the Project (refer to Annex 1), and reporting results to the Environmental Manager. ○ Responsible for identifying and reporting all exceedance incidents to the Environmental Manager. ○ In collaboration with the Environmental Manager, conduct Exceedance Investigation Procedure (refer to Annex 2) as necessary. ○ Responsible for proposing reasonable changes to equipment, fuels and/or procedures to rectify any exceedances. ● All Employees and Contractors ○ Implementation of all management procedures and measures as set out by this AQMP. ○ Promptly notifying the HSSE supervisors/officers of any air quality and dust grievances. ○ Notifying the HSSE supervisors/officers if there is an unanticipated generation source that is affecting air quality and dust.	
Plan Requirements	Actions, Measures and Procedures [Construction Phase]	Responsibility
	Adhering to 20km/h speed limit at campsites, borrow pits/quarry areas to prevent trucks and other vehicles from generating increased dust dispersion.	Contractor Construction Manager
	Proper management (watering, containment, covering, bundling) and securely covering all stockpiles of loose materials resulting from excavation and land clearing.	Contractor Construction Manager
	Contractor to identify any additional sensitive areas (near schools, health centers, houses, campsite, work fronts, communities adjacent to work fronts, borrow pits/quarry areas for monitoring on a monthly basis.	Contractor Construction Manager
	Potentially sensitive receptors identified along the Km 84-168 Gorongosa to Caia section of the N1 (84km) to be considered by the Contractor include:	

Environmental and Social Management Plan

Air Quality Monitoring Plan						
Name of receptor	Location (District, locality)	Type of receptor	Geographic coordinates		Estimated Chainage (Gorongosa to Caia)	
			Latitude	Longitude		
EPC Alberto Joaquim Chissano (Nhamapaza)	Marromeu, Nhamapaza	School	18.1516001	34.611841	Km139+230	
Additional potential sensitive receptors that require ground verification include:						
Receptor	Latitude	Longitude	Altitude	Identification reference distance and from road	Chainage (km)	
1	18°14'53.06"	34°14'45.76"	217 m	R1 (10m)	10.900	
2	18°13'36.61"	34°19'15.28"	128 m	R2 (50m)	19.400	
3	18°13'26.68"	34°19'31.31"	544 m	R3 - 40m	20.300	
4	18°13'23.04"	34°19'40.16"	527 m	R4 (more than 70m)	21.100	
5	18°13'10.25"	34°19'22.10"	333 m	Outside of road area	21.700	
6	18°13'10.41"	34°20'2.90"	441 m	R5 (40m)	21.800	
7	18°13'12.22"	34°21'20.47"	336 m	R6 (60m)	24.090	
8	18°13'9.93"	34°21'32.49"	321 m	R7 (60m)	24.900	
9	18°13'24.02"	34°21'59.67"	210 m	R8 (Outside of road area - More than 100m)	25.500	
10	18°14'3.95"	34°25'47.24"	297 m	R9 (40m)	31.500	
11	18°12'55.21"	34°26'54.81"	262m	R10 (67m)	35.500	
12	18°12'8.23"	34°28'22.34"	347 m	R11 (more than 100m)	38.400	
13	18°11'0.17"	34°32'9.70"	832 m	R12 (10m)	45.500	

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Air Quality Monitoring Plan								
	14	18°10'23.04"	34°33'5.28"	332 m	R13 (80m)	47.700		
	15	18° 9'20.81"	34°35'40.65"	205 m	R14A (70m)	52.600		
	16	18° 9'15.88"	34°35'37.50"	205 m	R14B (80m)	52.600		
	17	18° 9'7.67"	34°36'41.74"	202 m	R15 - Escola de Nhamapaza (40m)	54.500		
	18	18° 9'3.76"	34°36'41.74"	165 m	Same as R15	54.500		
	Implement a regular dust suppression procedure by regular spraying water on all unsealed roads, containment areas, uncovered loose materials, etc.						Contractor Construction Manager	
	Heavy machinery and equipment should be sprayed down at the end of the workday to prevent avoidable windblown dust.						Contractor Environmental Specialist	
	Where possible, modify construction schedule to minimize dust generating activities during periods of strong winds.						Contractor Construction Manager	
	To prevent air dispersion of loose materials, all vehicles carrying loose materials must be properly and securely covered with an appropriately sized tarpaulin.						Contractor' HSSE Officer	
	Utilization of lighter fuels should be considered to reduce PM ₁₀ emissions.						Contractor' Construction Manager	
	Maximize energy use-efficiency to minimize the use of generators on-site (procuring high energy efficiency rated equipment when appropriate and feasible).						Contractor's Construction Manager in association with Contractor's Procurement Manager	
	Strict prohibition on burning of any waste, included in all worker contracts, and enforce appropriate punishment for violations.						Contractor's HSSE Officer	
	Proper handling techniques for dropping materials and setting limit of drop height of material in order to eliminate dust generated.						Contractor's Construction Manager	
	Ensure the implementation of a functioning Community and Workers Grievance Mechanism for Air Quality related complaints						Contractor's Community Liaison Officer (CLO) and HSSE Officer	
Implement an Exceedances Investigation Procedure when air quality emissions have exceeded the permissible limits or in response to community grievances						Contractor's Environmental Specialist in association with the AQT		

Environmental and Social Management Plan

Air Quality Monitoring Plan					
Capacity Building and Trainings	• All personnel to receive Site Induction and OHS training outlining the various areas of the site such as material storage, emergency procedures. • Training should be provided to all staff on the proper use, maintenance, and storage of PPE equipment according to manufacturer's specifications. • Provide regular Toolbox Talks (TBT) to all personnel on the Code of Conduct and prohibition of open burning of waste. • Conduct regular trainings to all drivers on the importance of abiding by the on-site speed limit and the necessity to securely cover all loose materials when hauling to safeguard the surrounding communities from increased dust dispersion. • Training for sub-contractor and supplier personnel to ensure that all hauling Heavy Ground Vehicles (HGVs) are well-maintained, appropriately sized for loads and take the most efficient and appropriate route to the construction site. • Proper training of Contractor's CLO to ensure that all surrounding communities are well aware of the Community Grievance Mechanism, how to submit a grievance related to AQ and dust and the procedural steps which will follow a formal grievance (see CGM).				
	Performance Monitoring [Construction Phase]	Monitoring Indicator	Method of Monitoring	Frequency	Responsibility
Air and Dust Emissions		Air Quality sampling in accordance with Good International Industry Practice (GIIP)	Monthly	Contractor's AQT and Environmental Manager	• PM₁₀ < 50, although interim target may range from 75-150 µg/m³ in 24 hrs • PM_{2.5}<25, although the interim target may range from 75 to 37.5 in 24 hrs • SO₂ < 20, although interim targets are 50 and 125 µg/m³ in 24 hrs • NO_x < 190 µg/m³ in 1 hr • CO < 10000 µg/m³ in 8 hrs
	Equipment Maintenance	Visual Site Inspection and review of maintenance logs	Weekly / Monthly	Contractor's Environmental Specialist	Weekly site inspection log confirming no unmaintained vehicles/equipment in use on-site.

Environmental and Social Management Plan

Air Quality Monitoring Plan					
					Monthly verification of vehicle and equipment maintenance logs.
	Covering of loose materials	Visual Site Inspection	Weekly	Contractor's Environmental Specialist	Weekly site inspection log confirming all loose materials are covered.
	Adherence to 20km/h speed limit	Site Inspection and review of community grievance log	Weekly	Contractor's Environmental Specialist / Contractor's CLO	Weekly site inspection log confirming no breach in speed limit. Zero complaints received by community members regarding vehicle speeds.
	Air quality and dust exceeding permissible limits	Exceedance investigation procedure (Annex 2)	Immediately following confirmed exceedance	Contractor's Environmental Specialist, Environmental Manager and AQT	Zero implementation of exceedance investigation procedure.
Performance Monitoring [Operation/Maintenance Phase]	Monitoring Indicator	Method of Monitoring	Frequency	Responsibility	Target
	Air and Dust Emissions	Air Quality sampling in accordance with Good International Industry Practice (GIIP) at identified potential sensitive receptor sites	Monthly	Contractor's AQT and Environmental Manager	• $PM_{10} < 50$, although interim target may range from 75-150 $\mu g/m^3$ in 24 hrs • $PM_{2.5} < 25$, although the interim target may range from 75 to 37.5 in 24 hrs • $SO_2 < 20$, although interim targets are 50 and 125 $\mu g/m^3$ in 24 hrs • $NO_x < 190 \mu g/m^3$ in 1 hr • $CO < 10000 \mu g/m^3$ in 8 hrs

Environmental and Social Management Plan

Air Quality Monitoring Plan					
	Equipment Maintenance	Visual Site Inspection and review of maintenance logs	Weekly / Monthly	Contractor's Environmental Specialist	Weekly site inspection log confirming no unmaintained vehicles/equipment in use on-site. Monthly verification of vehicle and equipment maintenance logs.
	Air quality and dust exceeding permissible limits	Exceedance investigation procedure (Annex 2)	Immediately following confirmed exceedance	Contractor's Environmental Specialist, Environmental Manager and AQT	Zero implementation of exceedance investigation procedure.
Audit and Inspections [Construction Phase]	Type		Frequency	Responsibility	
	Internal Audit		Monthly	Contractor's Environmental Specialist	
	External Audit		Quarterly	Third party Monitoring	
	MAAP Audit		Unknown	Contractor's Project Manager and ANE to facilitate and cooperate with auditors	
KPIs	The following KPIs should be regularly monitored and accurately recorded to provide sufficient data for possible optimization of management measures:				
	KPI			Target	Frequency of Recording Measurement
	Number of Complaints and Incidents related to air quality and dust			0	Quarterly
	Number of air quality and dust measurements undertaken			1	Monthly
	Number of non-conformities to this management plan.			0	Monthly
	Number of Exceedance Investigation Procedures			-	Quarterly
	Non-conformities to this Air Quality Management Plan			0	Monthly
Reporting	Bi-weekly Site Inspection Reports Monitoring Consultant for Contractor corrective actions Monthly Reports by the Contractor's Environmental Specialist and approved by Contractor's Environmental Manager, submitted to Monitoring Consultant, for submission to ANE Monthly ESHS report submitted by ANE IP to WB Quarterly ESHS Performance Report by ANE IP to WB				

Environmental and Social Management Plan

Air Quality Monitoring Plan	
Review	This plan is a dynamic document and the implementation of this management plan should be reviewed and updated quarterly, informed by findings from internal/external audits, inspections, and KPI analysis. Any consistent non-compliance with the measures outlined or related incidents will trigger an immediate review. Additionally, an immediate review will be triggered in response to any changes in Project components, processes, or scope.

4.2 Noise and Vibration Monitoring Plan

Noise and Vibration Monitoring Plan	
Scope of Management Plan	This Noise and Vibration Monitoring Plan (NMP), applies to the construction and operation/maintenance phase of the Project. All Contractors, sub-contractors, and third-party service providers are required to adhere to this plan to ensure the consistent and proper execution of environmental and social (E&S) management and mitigation measures throughout the Project's duration.
Relevant Standards	• Mozambique Resolution 5/1995: National Environmental Policy • Mozambique Law No. 20/1997: Environmental Law • Law No. 23/2002: Labor Law • Decree No. 45/2009: Labor Inspection • WB ESS2, ESS4 • WB Guidelines for Permissible Noise Levels
Roles and Responsibilities	• Contractor's Project Manager ○ Responsible for the provision of adequate financial, labor and equipment resources for the full-implementation of this NMP. ○ Accountable for any significant deviations from this management plan resulting in non-compliant noise levels and any ensuing adverse Environmental and Social (E&S) impacts. ○ Responsible for authorizing/approving any changes or modifications to this plan as necessary due to inspection outcomes or identified optimization opportunities. ○ Responsible for quarterly review of all performance reports and KPIs regarding this NMP and approving any changes based on the data collected. ○ In conjunction with the Environmental Manager, responsible for ensuring and approving all remedial/corrective actions required from the Exceedance Investigation Procedure are fully implemented and resolved. • Contractor's Environmental Manager/Director ○ Accountable for any significant deviations from this management plan resulting in non-compliant noise levels and any ensuing adverse Environmental and Social (E&S) impacts. ○ Responsible for regular review of the Project's performance in relation to Noise and Vibration.

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Noise and Vibration Monitoring Plan		
	○ In conjunction with the Project Manager, responsible for authorizing/approving any changes or modifications to this plan as necessary due to inspection outcomes or identified optimization opportunities. ○ In conjunction with the Project Manager, responsible for quarterly review of all performance reports and KPIs regarding this NMP and approving any changes based on the data collected. ○ In conjunction with the Project Manager, responsible for ensuring and approving all remedial/corrective actions required from the Exceedance Investigation Procedure are fully implemented and resolved. ● Contractor's Environmental Specialist ○ On-site monitoring of this NMP. ○ Supervise and facilitate the Appropriate Qualified Acoustician's (AQA) activities while on-site, including sampling, measuring, site inspections and provision of any data/records relating to noise and vibration sources. ○ Support and coordination of the quarterly air quality inspection. ○ Conduct regular site inspections to ensure the full implementation of this NMP. ● Contractor's Construction Manager ○ Responsible for ensuring that all construction workers fully understand and abide by the measures and procedures outlined in this NMP. ○ Responsible for coordinating with the Environmental Manager and HSSE Supervisors on procedures concerning dust suppression. ● Appropriately Qualified Acoustician (AQA) ○ Responsible for conducting regular sampling of noise and vibration levels at strategically chosen sampling locations, according to his/her expertise, and in-line with Good International Industry Practices (GIIP) and developing summary reports of measured noise and vibration levels which should be delivered to the HSSE Manager. ○ Responsible for recommending any changes or modifications to this plan as necessary in response to measures noise and vibration levels and observations or identified optimization opportunities. ○ In conjunction with the HSSE Manager, responsible for conducting noise Exceedance Investigation Procedures as needed, in addition to the regular sampling program. ○ In conjunction with the HSSE Manager, responsible for recommending all remedial/corrective actions required from the Exceedance Investigation Procedure are fully implemented and resolved. ● All Employees and Contractors ○ Implementation of all management procedures and measures as set out by this NMP. ○ Promptly notifying the HSSE supervisors/officers of any noise and/or vibration related grievances. ○ Notifying the HSSE supervisors/officers if there is an unanticipated noise/vibration generation source.	
Plan Requirements	Actions, Measures and Procedures	Responsibility

Environmental and Social Management Plan

Noise and Vibration Monitoring Plan						
	Schedule noisy activities during daytime hours				Contractor's Manager	Construction
	Select modern machinery and equipment with lower noise generation levels where possible.				Contractor's Manager	Procurement
	Install suitable mufflers on engine exhausts.				Contractor's Manager	Construction
	Minimize vehicle traffic through dense community areas (potentially sensitive locations mentioned below) by conducting a routing study and finding alternative routes to the Project area.				Contractor's Manager in association with Construction Manager	Project
	Contractor to identify any additional sensitive areas (near schools, health centers, houses, campsite, work fronts, communities adjacent to work fronts, borrow pits/quarry areas for monitoring on a monthly basis.				Contractor's Manager	Construction
	Potentially sensitive receptors identified to be considered by the Contractor include:					
	Name of receptor			Geographic coordinates		
		Location (District, locality)	Type of receptor	Latitude	Longitude	Estimated Chainage (Gorongosa to Caia)
	EPC Alberto Joaquim Chissano (Nhamapaza)	Marromeu, Nhamapaza	School	18.1516001	34.611841	Km139+230
	Additional potential sensitive receptors that require ground verification include:					
	Receptor	Latitude	Longitude	Altitude	Identification reference distance and from road	Chainage (km)
	1	18°14'53.06"	34°14'45.76"	217 m	R1 (10m)	10.900
	2	18°13'36.61"	34°19'15.28"	128 m	R2 (50m)	19.400
	3	18°13'26.68"	34°19'31.31"	544 m	R3 - 40m	20.300
	4	18°13'23.04"	34°19'40.16"	527 m	R4 (more than 70m)	21.100

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Noise and Vibration Monitoring Plan							
	5	18°13'10.25"	34°19'22.10"	333 m	Outside of road area	21.700	
	6	18°13'10.41"	34°20'2.90"	441 m	R5 (40m)	21.800	
	7	18°13'12.22"	34°21'20.47"	336 m	R6 (60m)	24.090	
	8	18°13'9.93"	34°21'32.49"	321 m	R7 (60m)	24.900	
	9	18°13'24.02"	34°21'59.67"	210 m	R8 (Outside of road area - More than 100m)	25.500	
	10	18°14'3.95"	34°25'47.24"	297 m	R9 (40m)	31.500	
	11	18°12'55.21"	34°26'54.81"	262m	R10 (67m)	35.500	
	12	18°12'8.23"	34°28'22.34"	347 m	R11 (more than 100m)	38.400	
	13	18°11'0.17"	34°32'9.70"	832 m	R12 (10m)	45.500	
	14	18°10'23.04"	34°33'5.28"	332 m	R13 (80m)	47.700	
	15	18° 9'20.81"	34°35'40.65"	205 m	R14A (70m)	52.600	
	16	18° 9'15.88"	34°35'37.50"	205 m	R14B (80m)	52.600	
	17	18° 9'7.67"	34°36'41.74"	202 m	R15 - Escola de Nhamapaza (40m)	54.500	
	18	18° 9'3.76"	34°36'41.74"	165 m	Same as R15	54.500	
	Ensure a functioning Workers and Community Grievance mechanisms.						Contractor Environmental Manager and Contractor's CLO
	Implement a Noise Exceedances Investigation Procedure when noise levels have exceeded the permissible limits or in response to community grievances						Contractor Environmental Manager in conjunction with the Environmental Specialist
Capacity Building and Trainings	• Training on the importance of noise reduction practice and the potential harmful impacts of excess noise on human safety as well as the surrounding biodiversity. • Specific training themes may include, but not limited to: ○ Appropriate times to undertake high noise generating activities. ○ The importance of equipment maintenance to prevent unnecessary noise generation (e.g. worn out bearings, loose rattling covers, etc.) ○ Notification process for undertaking high noise generating activities outside of prescheduled times. ○ The importance of proper use of acoustical enclosures, if necessary to install, to maintain effectiveness. ○ Emphasis on the importance and proper use of PPE for noise protection to ensure worker safety.						

Environmental and Social Management Plan

Noise and Vibration Monitoring Plan					
	○ Refresher Toolbox Talks ○ Induction training				
Performance Monitoring [Construction Phase]	Monitoring Indicator	Method of Monitoring	Frequency	Responsibility	Target
	Noise Levels	Noise measurements in accordance with Good International Industry Practice (GIIP) considering potentially sensitive receptors noted above	Monthly	Contractor's AQA and HSSE Manager	- Workers: <50-65 dB(A), over an eight hour period - Daytime levels (receptors off site) <55 dBA - Nighttime levels <45 dBA (1 hour period for offsite receptors) - Maximum increase in background levels of < 3 dBA at the nearest receptor location off-site
		Noise measurements via handheld device considering potentially sensitive receptors noted above	Weekly	Contractor's Environmental Specialist	
	Equipment Maintenance	Visual Site Inspection and review of maintenance logs	Weekly / Monthly	Contractor's Environmental Specialist	Weekly site inspection log confirming no unmaintained vehicles/equipment in use on-site. Monthly verification of vehicle and equipment maintenance logs.
	Adherence to 20 km/h speed limit (in campsite, borrow pit, quarry areas)	Site Inspection and review of community grievance log	Weekly	Contractor's Environmental Specialist / Contractor's CLO	Weekly site inspection log confirming no breach in speed limit. Zero complaints received by community members regarding vehicle noise.
	Noise exceeding permissible limits	Exceedance investigation procedure (Annex 2)	Immediately following confirmed exceedance	Contractor's Environmental Specialist, HSSE Manager and AQT	Zero implementation of exceedance investigation procedure.

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Noise and Vibration Monitoring Plan						
				(Contractor's CLO if needed)		
Performance Monitoring [Operation/ Maintenance Phase]	Noise Levels	Noise measurements can be undertaken with a handheld device at potentially sensitive receptors identified during the pre-construction/construction period. However should re-sealing or other construction activities be required, frequency of monitoring should be monthly at sensitive receptors at the work fronts.	Six-monthly	Contractor's AQA and HSSE Manager	- Workers: <50-65 dB(A), over an eight hour period - Daytime levels (receptors off site) <55 dBA - Nighttime levels <45 dBA (1 hour period for offsite receptors) - Maximum increase in background levels of < 3 dBA at the nearest receptor location off-site	
Audit Inspections [Construction Phase] and	Type		Frequency		Responsibility	
	Noise Monitoring		Monthly		Contractor Environmental Manager and AQA	
	Noise Monitoring (handheld device)		Weekly		Contractor's Environmental Specialist	
	Inspection of machinery, vehicles and equipment		Weekly		Contractor Environmental Manager	
	Internal Audit		Monthly		Contractor's Environmental Specialist	
	External Audit		Quarterly		Third party Monitoring	
	MAAP Audit		Unknown		Contractor's Project Manager and ANE to facilitate and cooperate with auditors	
KPIs	The following KPIs should be regularly monitored and accurately recorded to provide sufficient data for possible optimization of management measures:					
	KPI				Target	Frequency of Recording Measurement /
	Number of Complaints and Incidents related to noise and vibration				0	Quarterly
	Number of noise related complaints per month from stakeholders.				0	Monthly
	Number of noise related complaints per month from on-site personnel.				0	Monthly

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Noise and Vibration Monitoring Plan			
	Number of Exceedance Investigation Procedures Initiated	0	Quarterly
	Average ambient noise levels.	Below 70(dBa)	Quarterly
	Number of non-conformities to this Noise management plan.	0	Monthly
Reporting	Bi-weekly Site Inspection Reports Monitoring Consultant for Contractor corrective actions Monthly Reports by the Contractor's Environmental Specialist and approved by Contractor's Environmental Manager, submitted to Monitoring Consultant, for submission to ANE Monthly ESHS report submitted by ANE IP to WB Quarterly ESHS Performance Report by ANE IP to WB		
Review	This plan is a dynamic document and the implementation of this management plan should be reviewed and updated quarterly, informed by findings from internal/external audits, inspections, and KPI analysis. Any consistent non-compliance with the measures outlined or related incidents will trigger an immediate review. Additionally, an immediate review will be triggered in response to any changes in Project components, processes, or scope.		

Environmental and Social Management Plan**4.3 Soil and Erosion Management Plan**

Soil and Erosion Management Plan	
Scope of Management Plan	This Soil and Erosion Management Plan, applies to the construction and operations phase of the Project. All Contractors, sub-Contractors, and third-party service providers are required to adhere to this plan to ensure the consistent and proper execution of environmental and social (E&S) management and mitigation measures throughout the Project's duration.
Relevant Standards	• Mozambique Resolution 5/1995: National Environmental Policy • Mozambique Law No. 20/1997: Environmental Law • Mozambique Law No. 16/1991: Water Law - Contamination • Mozambique Decree No. 18/2004: Effluents and Quality Standards • Mozambique Decree No. 83/2014: Hazardous Waste Management • Mozambique Decree No. 13/2006: Regulations on Waste Management • Mozambique Decree No. 60/2012: Urban Soils Regulations • WB ESS 3 • WB EHS - Indicative Values for Treated Sanitary Sewage Discharge • WBG EHS Guidelines for Construction Materials extraction • (https://documents1.worldbank.org/curated/pt/222201490081035541/pdf/113619-WP-ENGLISH-Construction-Materials-Extraction-PUBLIC.pdf)
Roles and Responsibilities	• ANE, IP ○ Responsible for ensuring that the Project has acquired the required special permits to conduct works within the protected zone (within 30m from the edge of the road of both sides). • Contractor's Project Manager ○ Responsible for the overall implementation of this Soil and Erosion Management plan. ○ Responsible for authorizing/providing appropriate and adequate resources and materials to implement this plan. ○ Responsible for approving any changes and optimizations to this management plan as needed. ○ In conjunction with the HSSE Manager, responsible for review of HSE plans, policies and incidents relating to soil and erosion and providing management approval to changes in policies. ○ Responsible for quarterly review of performance reports and KPIs as relating to soils and compliance with this management plan. • Contractor Environmental Manager/Director ○ Reviewing the HSE plans and policies in cooperation with the Project Manager and ensuring management approval. ○ Supervising the analysis of performance monitoring activities outcomes, and the resulting corrective action plan ○ Developing and updating the training plan in line with the requirements of this plan and delivering hazardous

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Soil and Erosion Management Plan		
	- materials training to all relevant personnel. ○ Maintaining all HSE Project logs ○ Developing and tracking corrective action plans based on outcomes of inspections. ○ Developing incident/violation reports in the case of any detected spill/leakage or contamination incidents and communicating to Project Manager. ○ Overseeing onsite implementation of this plan. ○ Responsible for site inspections and performing monitoring activities. • Contractor's Environmental Specialist ○ On-site monitoring of this Soil and Erosion Management Program. ○ Undertake weekly site inspections and daily site inspections on hazardous materials/waste storage areas to ensure the full implementation of this Soil and Erosion Management Program. • Contractor's Construction Manager ○ Responsible for ensuring that all construction workers fully understand and abide by the measures and procedures outlined in this Soil and Erosion Management Program. ○ Responsible for overseeing the proper loading and storage of all hazardous materials that can potentially cause land contamination (e.g., fuels, oils, hydraulic fluids, cleaning chemicals, etc.) and ensuring that only trained personnel handle, store and properly dispose of these materials. • All Employees and Contractors ○ Implementation of all management procedures and measures as set out by this Soil and Erosion Management Program. ○ Promptly notifying the HSSE supervisors/officers of any observed leaks or spills. ○ Notifying the HSSE supervisors/officers if there is an unanticipated generation source of wastewater, effluent or hazardous materials.	
Plan Requirements	Actions, Measures and Procedures	
	Laboratories must be appropriately qualified and certified to undergo analysis of samples and the results must be certified and provided to the PIU for validation. [Construction Phase]	Contractor's Project Manager
	Borrow pits and quarries should be used following approved license/management plans. Annex 12: Quarry management monitoring guidelines may be utilized in addition to WBG EHS Guidelines for Construction Materials extraction to assist in management and monitoring of these areas.	Contractor's Construction Manager in association with Contractor's Environmental Specialist
	Limit vehicle movement to designated areas only. [Construction Phase]	Contractor's Construction Manager in association with the HSSE Manager.

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	Minimize heavy vehicle usage on unsealed roads as much as possible during rainy season (Dec-Mar). [Construction Phase]		Contractor's Construction Manager in association with Contractor's Environmental Specialist	
	Utilize track-mounted or low-pressure tires on construction vehicles to distribute the weight more evenly and minimize soil compaction. Use lighter machinery where possible. [Construction Phase]		Contractor's Project Manager and Contractor's Procurement Manager	
	All machinery maintenance and refueling is to be undertaken using drip trays, and all workers undertaken maintenance/refueling must be provided with adequate training on the use of drip trays and spill kits. [Construction Phase]		Contractor Environmental Manager	
	Spill kits must be provided at convenient, easy to reach locations at all locations where machinery is being utilized and all relevant personnel to receive training in the use of these spill kits. [Construction Phase]		Contractor Environmental Manager in association with the Contractor's Procurement Manager	
	Return surfaces disturbed during construction to their original (or better) condition to the greatest extent possible and promptly revegetate areas where construction works have been completed. [Operations Phase]		Contractor's Project Manager and Contractor's Construction Manager	
	Develop and implement public awareness campaigns to educate local communities about the importance of soil conservation and the role they can play in maintaining soil health. [Operations Phase]		ANE Project Manager/Coordinator	
Capacity Building and Trainings	• The primary soil and erosion management strategy for this Project should focus on prevention of soil degradation, contamination and erosion. All on-site staff should be trained on: ○ All Project workforce will be made aware of the contents of this plan and their responsibility in its implementation. ○ Practical training for relevant personnel for use of spill kits. ○ Knowledge of construction materials, equipment and tools and their proper use. For instance (concrete, steel, gravel, cranes, excavators, trucks, hand tools, power tools, electrical tools, etc.) ○ Correct use and application of Personal Protective Equipment (PPE) relevant to the works performed. ○ All workers will receive regular refresher HSE training sessions. ○ Importance of safeguarding against contamination and pollution and the potential environmental, social, health, and safety risks associated with soil and groundwater contamination. ○ Recognition of indicators of soil management issues which include observable signs such as: changes in soil color/ texture, accumulations of deposits around equipment and materials, increased runoff, etc. • These trainings will be conducted through: ○ Induction training material for workers ○ Repeated/refresher Toolbox Talks			
Performance Monitoring and Audit	Type	Frequency	Responsibility	
	Site Inspection of soil management practices	Weekly	Contractor's Environmental Specialist	
	Estimated Soil Quantity Excavated	Quarterly	Contractor's Environmental Specialist	

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Soil and Erosion Management Plan				
Inspections in Construction and Operation Phases	Estimate Proportion of Soil Backfilled	Quarterly	Contractor's Environmental Specialist	
	Internal Audit	Monthly	Contractor's Environmental Specialist	
	External Audit	Quarterly	Third party Monitoring	
	MAAP Audit	Unknown	Contractor's Project Manager and ANE to facilitate and cooperate with auditors	
KPIs	The following KPIs should be regularly monitored and accurately recorded to provide sufficient data for possible optimization of management measures:			
	KPI	Target	Frequency of Recording Measurement	of /
	Frequency of Contamination Incidents: Number of spills and/or soil contamination incidents occurring per month. (<5, low; 6-10, moderate; > 10, high).	0	Monthly	
	Severity of Contamination Incidents: Affected surface area. (< 1% of Project land area, low; 10-20% of Project land area, moderate; > 20% of Project land area, severe).	Low	Monthly	
	Severity of Soil Erosion: Affected surface area. (< 1% of Project land area, low; 10-20% of Project land area, moderate; > 20% of Project land area, severe).	Low	Monthly	
	Development of an Accidental Spills and Contamination Incident Summary Reports	1	Weekly	
	Non-conformities to this Soil and Erosion Management Plan	0	Monthly	
Reporting	Bi-weekly Site Inspection Reports Monitoring Consultant for Contractor corrective actions Monthly Reports by the Contractor's Environmental Specialist and approved by Contractor's Environmental Manager, submitted to Monitoring Consultant, for submission to ANE Monthly ESHS report submitted by ANE IP to WB Quarterly ESHS Performance Report by ANE IP to WB			
Review	This plan is a dynamic document and the implementation of this management plan should be reviewed and updated quarterly, informed by findings from internal/external audits, inspections, and KPI analysis. Any consistent non-compliance with the measures outlined or related incidents will trigger an immediate review. Additionally, an immediate review will be triggered in response to any changes in Project components, processes, or scope.			

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4.4 Water and Effluent Quality Monitoring Plan

Water and Effluent Quality Monitoring Plan	
Scope of Management Plan	This Water and Effluent Quality Monitoring Plan, applies to the construction and operations phase of the Project. All Contractors, subcontractors, and third-party service providers are required to adhere to this plan to ensure the consistent and proper execution of environmental and social (E&S) management and mitigation measures throughout the Project's duration.
Relevant Standards	• Mozambique Resolution 5/1995: National Environmental Policy • Mozambique Law No. 20/1997: Environmental Law • Mozambique Law No. 16/1991: Water Law – Contamination • Mozambique Decree No. 18/2004: Effluents and Quality Standards • Mozambique Decree No. 83/2014: Hazardous Waste Management • Mozambique Decree No. 13/2006: Regulations on Waste Management • WB ESS2, ESS 3, ESS 4 • WB EHS - Indicative Values for Treated Sanitary Sewage Discharge
Roles and Responsibilities	• Contractor's Project Manager ○ Responsible for the overall implementation of this Water and Effluent Quality Management and Monitoring Program. ○ Responsible for authorizing/providing appropriate and adequate resources and materials to implement this plan. ○ Responsible for approving any changes and optimizations to this management plan which would improve water use efficiency and/or enhanced wastewater management. ○ In conjunction with the HSSE Manager, responsible for review of plans, policies and incidents relating to water and wastewater and providing management approval to changes. ○ Responsible for quarterly review of performance reports and KPIs as relating to water consumption/efficiency and compliance with this management plan. • Contractor Environmental Manager ○ Reviewing the HSE plans and policies in cooperation with the Project Manager and ensuring management approval. ○ Supervising the analysis of performance monitoring activities outcomes, and the resulting corrective action plan ○ Developing and updating the training plan in line with the requirements of this plan ○ Maintaining all HSE Project logs, including leaks reporting, water-related grievances and any incident reporting in relation to water (e.g., dehydration). ○ Developing and tracking corrective action plans based on outcomes of inspections. ○ Ensure all water sources are correctly licensed by local authorities prior to use and water quality tested

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Water and Effluent Quality Monitoring Plan	
	monthly, particularly potable water sources. ○ Developing incident/violation reports in the case of any detected spill/leakage or contamination incidents and communicating to Project Manager. ○ Overseeing onsite implementation of this plan ○ Responsible for ensuring that all sanitation facilities are provided at adequate quantities to accommodate the workforce and that facilities are regularly cleaned to an appropriate Occupational Health and Safety Standards to prevent potential spread of diseases on-site. ○ Responsible for site inspections and performing monitoring activities. ● Contractor's Environmental Specialist ○ On-site monitoring of this Water and Effluent Quality Management and Monitoring Program. ○ Undertake weekly site inspections and daily inspections on wastewater holding tanks to ensure the full implementation of this Water and Effluent Quality Management and Monitoring Program. ○ Responsible for signing wastewater consignment notes on behalf of the Contractor's as loaded vehicles exit the project area. ○ Contractor's Construction Manager ○ Responsible for ensuring that all construction workers fully understand and abide by the measures and procedures outlined in this Water and Effluent Quality Management and Monitoring Program. ○ Responsible for coordinating with the HSSE Manager and HSSE Supervisors on measures and procedures in relation to water and wastewater. ○ Responsible for ensuring construction processes are implemented efficiently to minimize water consumption where possible. ● Contractor's Procurement Manager ○ Ensure the procurement process is in line with national and international requirements. ○ Responsible for provisioning of soaps for hand-washing stations with the least amount of triclocarban, triclosan and phosphate reasonably possible to facilitate re-use of greywater. ○ Responsible for ensuring a regular supply of drinking water of acceptable World Health Organization (WHO) quality for the workforce throughout the construction period. ○ Responsible for the provisioning of water conservation devices and equipment for installation in hand washing stations and worker sanitation facilities. ○ Responsible for the provision of water-saving equipment such as Pressure Washers for washing/cleaning activities to reduce generation of wastewater. ● All Employees and Contractors ○ Implementation of all management procedures and measures as set out by this Water and Effluent Quality Management and Monitoring Program. ○ Promptly notifying the HSSE supervisors/officers of any observed leaks in wastewater holding tanks.

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Water and Effluent Quality Monitoring Plan		
	○ Notifying the HSSE supervisors/officers if there is an unanticipated generation source of wastewater or effluent.	
Plan Requirements	Actions, Measures and Procedures	Responsibility
	Adequate provision of clean drinking water meeting WHO water quality parameters (refer to Annex 1) for all project personnel and ensuring its regular availability for all on-site personnel.	Contractor's Procurement Manager
	Develop a clear policy of commitment to adequate water and effluent management and a commitment to implementation of the waste hierarchy throughout all stages (from procurement to construction), as much as reasonably possible, prioritizing; prevention/reduction, reuse, treatment and disposal, in that order as appropriate to the type of effluent generated.	Contractor's Project Manager in association with HSSE and Procurement Manager
	Enforce a strict prohibition illegal disposal of all effluents to the land or sea by all personnel, sub-contractors and service providers and include penalties for violations within the respective contractual agreements.	Contractor's HSSE Manager in association with the Construction Manager
	Ensure adequate water quality monitoring during the process of rehabilitation of the following bridges: <i>Main rivers and bridges to be rehabilitated in section Gorongosa-Caia (Km 84-168):</i> • S-20 (Nhapherua River) (Km 101+260) • S-21 (Nhampaza River) (Km 126+260) • S-22 (Mombeze) (Km 133+260) • S-23 (Nhanzaza River) (Km 143+680) • S-24 (Fudza River) (Km155+320)	Contractor's HSSE Manager in association with the Construction Manager
	Installation of temporary/portable sanitation facilities for workers which must include a dedicated holding tank. The holding tank is to be evacuated regularly and/or when reaching 75% of its capacity. Evacuation trucks must be fit for purpose and transfer blackwater to the nearest qualified treatment facility.	Contractor's Procurement Manager in association with the HSSE Manager.
	Establish a contractual agreement with the local Municipalities, where possible, for the collection, transportation and proper disposal of all liquid waste and wastewater. The frequency of collection, estimated amount disaggregated by type (construction effluent, blackwater, greywater, etc.) as well as the details of the treatment and disposal facility for each type must be accurately documented via consignment notes. Alternatively, contractual	Contractor's Procurement Manager

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Water and Effluent Quality Monitoring Plan		
	agreements can be made with qualified and licensed wastewater Contractors if available.	
	Consignment notes or certified receipts should be completed by both parties (Contractor's and municipal council/qualified service provider) to ensure accurate quantification and recording of wastewater generated, transferred and disposed as vehicles exit the project site.	Contractor's Environmental Specialist in conjunction with the representatives and/or drivers of the municipal council/service provider.
	Conduct a comprehensive assessment to identify alternative water sources for plant rearing and maintenance that will minimize abstraction from groundwater resources.	Contractor's Project Manager in association with Environmental Specialist and a qualified Hydrogeology expert.
	Explore and, if feasible, develop alternative water supply sources (e.g., treated greywater, rainwater harvesting) for use in plant rearing and maintenance.	Contractor's/Specialized Subcontractor Project Manager
	Establish limits on groundwater abstraction based on a detailed hydrogeological study to prevent excessive extraction and saline intrusion. [	Contractor's Project Manager in conjunction with a qualified hydrogeologist and in association with the relevant local authorities.
	Schedule planting activities to coincide with seasons of higher natural water availability.	Contractor's/Specialized Subcontractor Project Manager
Capacity Building and Trainings	- The primary water management strategy for this Project should focus on reduction of avoidable water consumption/loss and proper management of wastewater. All on-site staff should be trained on: - The information and management measures included in this plan including their responsibility for minimizing avoidable water consumption. - The importance of minimizing water consumption and appropriate behavioral methods to increase water-use efficiency (e.g., turning off faucet when applying soap or brushing teeth, etc.). - Promptly report any leaks to their immediate supervisor who should immediately report the leak up the organizational hierarchy to the HSSE Manager for prompt rectification. - The potential risks of improper wastewater management on the biotic environment and human health. - The potential damaging effects of soil and water contamination by improper storage and handling of wastewater. - These trainings will be conducted through: - Induction training material for workers - Repeated/refresher Toolbox Talks	

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Water and Effluent Quality Monitoring Plan					
Performance Monitoring [Construction & Operations Phases]	Monitoring Indicator	Method of Monitoring	Frequency	Responsibility	Target
	Drinking Water Quality	Provision of a certificate of Water Quality by supplier, or in the absence of a certificate and drinking water is not bottled water, conduct water quality test [Construction Phase - monthly tests] [Maintenance Phase -6-monthly tests]	With each batch received	Contractor Environmental Manager	In-line with WHO Water quality parameters (see Annex 1).
	Water Consumption	Review water consumption logs and evaluate trends in consumption. [Construction and Operations Phases] Review of leak inspection and repair logs in conjunction with site inspections. [Construction and Operations Phases]	Quarterly	Contractor Environmental Manager [Construction Phase] / Municipality Personnel [Operations Phase]	Reduction in consumption trends allowing for seasonal variation.
	Improper discharge of effluents and management of domestic sanitary holding tank	Review of consignment notes or certified receipts. Review of audit reports	Quarterly (during construction phase), if Contractor opts for septic tank combined with outlet drain into the	Contractor's Environmental Specialist and HSSE Manager	No elevated levels of contaminants in effluent outlet tests.

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Water and Effluent Quality Monitoring Plan					
			soil. Outlet treated wastewater must be reachable for sampling		
			Yearly (during Maintenance phase)		
	Improper management of domestic sanitary holding tank	Inspection of wastewater holding tanks Review of consignment notes or certified receipts.	Daily/ Monthly	Contractor's Environmental Specialist / HSSE Manager	Weekly site inspection reports including summary of condition of wastewater holding tank. No elevated levels of contaminants in effluent outlet tests.
	Confirmed/validated improper/illegal effluent wastewater discharge or	Testing of effluent quality parameters	Immediately following verification of breach	Contractor's Project Manager	Parameters to be in-line with the WB Indicative Values for Treated Sanitary Sewage in Annex 1. (If not, a fine will be imposed on the responsible entity which must also finance the required treatment or remedial actions)
Audit and Inspections [Construction Phases]	Type		Frequency	Responsibility	
	Internal Audit		Monthly	Contractor's Environmental Specialist	
	External Audit		Quarterly	Third party Monitoring	
	MAAP Audit		Unknown	Contractor's Project Manager and ANE to facilitate and cooperate with auditors	
KPIs	The following KPIs should be regularly monitored and accurately recorded to provide sufficient data for possible optimization of management measures:				

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Water and Effluent Quality Monitoring Plan			
	KPI	Target	Frequency of Recording / Measurement
	Number of leaks/spills detected	0	Monthly
	Estimated water loss to leaks and defects in cubic meters	0	Monthly
	Number of on-site wastewater/effluent management inspections conducted	30	Monthly
	Proportion of signed to unsigned wastewater/effluent consignment notes	100%	Quarterly
	Number of non-conformities to this Water and Effluent Management Plan.	0	Monthly
Reporting	Bi-weekly Site Inspection Reports Monitoring Consultant for Contractor corrective actions Monthly Reports by the Contractor's Environmental Specialist and approved by Contractor's Environmental Manager, submitted to Monitoring Consultant, for submission to ANE Monthly ESHS report submitted by ANE IP to WB Quarterly ESHS Performance Report by ANE IP to WB		
Review	This plan is a dynamic document and the implementation of this management plan should be reviewed and updated quarterly, informed by findings from internal/external audits, inspections, and KPI analysis. Any consistent non-compliance with the measures outlined or related incidents will trigger an immediate review. Additionally, an immediate review will be triggered in response to any changes in Project components, processes, or scope.		

Environmental and Social Management Plan**4.5 Waste Management Plan**

Waste Management Plan	
Scope of Management Plan	This Waste Management Plan, applies to the construction and operations phase of the Project. All Contractors, sub-Contractors, and third-party service providers are required to adhere to this program to ensure the consistent and proper execution of environmental and social (E&S) management and mitigation measures throughout the Project's duration.
Relevant Standards	• Mozambique Resolution 5/1995: National Environmental Policy • Mozambique Law No. 20/1997: Environmental Law • Mozambique Decree No. 83/2014: Hazardous Waste Management • Mozambique Decree No. 8/2003: Biomedical Waste Management • Mozambique Decree No. 13/2006: Regulations on Waste Management • WB ESS 3, ESS 4
Roles and Responsibilities	• Contractor's Project Manager ○ Responsible for the overall implementation of this Waste Management plan. ○ Responsible for authorizing/providing appropriate and adequate resources and materials to implement this plan. ○ Responsible for approving any changes and optimizations to this management plan which would improve waste management practices. ○ In conjunction with the HSSE Manager, responsible for review of HSE plans, policies and incidents relating to improper waste management and providing management approval to changes in policies. ○ Responsible for quarterly review of performance reports and KPIs relating to waste and compliance with this management plan. • Contractor Environmental Manager/Director ○ Reviewing the HSE plans and policies in cooperation with the Project Manager and ensuring management approval. ○ Supervising the analysis of performance monitoring activities outcomes, and the resulting corrective action plan ○ Developing and updating the training plan in line with the requirements of this plan ○ Maintaining all HSE Project logs ○ Developing and tracking corrective action plans based on outcomes of inspections. ○ Developing incident/violation reports in the case of any detected contamination incidents due to improper waste management and communicating to Project Manager. ○ Overseeing onsite implementation of this plan ○ Responsible for site inspections and performing monitoring activities. • Contractor's Environmental Specialist

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Waste Management Plan		
	○ On-site monitoring of this Waste Management Program. ○ Undertake weekly site inspections of solid waste area and daily site inspections of hazardous waste storage area to ensure the full implementation of this Waste Management Plan. • Contractor's Construction Manager ○ Responsible for ensuring that all construction workers fully understand and abide by the measures and procedures outlined in this Waste Management Plan. ○ Responsible for overseeing the proper loading and storage of all hazardous waste materials (e.g., spent oils, used oil filters, empty chemical containers, contaminated rags used during machine maintenance etc.). • All Employees and Contractors ○ Implementation of all management procedures and measures as set out by this Waste and Management Program. ○ Promptly notifying the HSSE supervisors/officers of any improperly stored waste materials. ○ Notifying the HSSE supervisors/officers if there is an unanticipated generation source of waste.	
Plan Requirements	Actions, Measures and Procedures	Responsibility
	Enforce a strict prohibition on any burning of waste.	Contractor Environmental Manager in association with the Construction Manager / Municipality Personnel during operations
	Enforce a strict prohibition of illegal disposal of hazardous waste to the land.	Contractor's HSSE Manger in association with the Construction Manager / Municipality Personnel during operations
	Implement proper housekeeping practices on the construction site at all times. [Construction Phase]	Contractor's HSSE Manger
	Develop a clear policy of commitment to adequate waste management and a commitment to implementation of the waste hierarchy throughout all stages (from procurement to construction), as much as reasonably possible, prioritizing; prevention/reduction, reuse, recycling, recovery, treatment and disposal, in that order as appropriate to the type of waste. Investigate and implement arrangements/procedures with communities (or others), in order to allow community members (or others) to reuse and recycle Contractor waste. Investigate companies that recycle used oil/lubricants and implement procedures to use them.	Contractor's Project Manager
	All solid waste must be properly segregated at the source. Separation of recyclable materials, organic waste, hazardous waste and	Contractor Environmental Manager in conjunction with Contractor's Environmental

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Waste Management Plan		
	biomedical waste at the generation source is crucial. [Construction Phase]	Specialist and supported by Contractor's Construction Manager
	Provide designated waste collection bins and a dedicated, locked hazardous waste storage area must be provided on-site, and positioned at the most in-land location of the construction area. Non-hazardous solid waste containers should also be placed in various areas around site if the construction area is large to facilitate proper waste disposal by workers. Separate containers must be provided for the storage of organic, recyclable and hazardous waste and be clearly signed and color coded for clarity. These containers must be lined with an impermeable layer on the bottom and protected from wind and rain. For hazardous wastes, plastic layers and sand is not acceptable for use as the impermeable layer; a concrete surface in a bunded area is highly recommended. Organic waste containers must be rain and rodent-proof. Construction, demolition waste is to be stored in large skips and appropriately covered.	Contractor Environmental Manager in association with Environmental Specialist and the Contractor's Procurement Manager
	All waste generated onsite should be accurately recorded and logged	Contractor Environmental Manager
	Establish a contractual agreement with the local municipalities, where possible, for the collection, transportation and proper disposal of all solid, liquid and hazardous waste. The agreement should specify the frequency of collection, estimated amount disaggregated by type of waste as well as outlining the details of the treatment, disposal or transfer station for each type of waste. Alternatively, contractual agreements can be made with qualified and licensed waste Contractors if available. An agreement with a local hospital can be made for disposal of biomedical waste. All contracts to include the requirement for signed consignment notes for all waste vehicles exiting the project site.	Contractor's Procurement Manager
	Consignment notes or certified receipts should be completed by both parties (Contractor's and municipal council) to ensure accurate quantification and recording of waste generated, transfer and disposal.	Contractor Environmental Manager
	All hazardous waste must be transferred by a trained and qualified individual utilizing an appropriate vehicle and taken off-site at the end of each day to an appropriately designed, designated and secure hazardous waste storage area. The hazardous storage area should be	Contractor Environmental Manager and Contractor's Environmental Specialist / Municipality Personnel during operations

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Waste Management Plan					
	located in-land, away from residential areas and sensitive receptors and have the following characteristics: Constructed with a hard impermeable surface floor (preferably concrete), flame-proof, accessible to authorized personnel only, locked when not in use and be of sufficient capacity to accommodate the anticipated volume of hazardous waste with separate areas for incompatible materials. The area should be properly ventilated and protected from wind and rain (roofed). Spill kits should be available close by. Additionally, Material Safety Data Sheet (MSDS) should be kept on-site and an accurate and up-to-date inventory must be maintained at all times. [Construction & Operations Phase]				
Capacity Building and Trainings	- The primary waste management strategy for this Project should focus on implementation of the waste hierarchy. All on-site staff should be trained on: - All Project workforce will be made aware of the contents of this plan and cover the implementation of the plan. - Correct use and application of Personal Protective Equipment (PPE) relevant to the works performed. - All workers will receive regular refresher HSE training sessions. - Importance of safeguarding against contamination and pollution and the potential environmental, social, health, and safety risks associated with hazardous waste materials. - Good housekeeping, segregation of waste streams at the source and inventory control. - Clear understanding of what constitutes hazardous materials. - Proper waste handling and storage. - Machine engineers/technicians should be trained in safe re-fueling and maintenance practices and should be provided with and trained in the use of spill kits. - All personnel working with hazardous substances should be appropriately trained and qualified in the safe handling and disposal of hazardous wastes and the proper use of Personal Protective Equipment (PPE) - These trainings will be conducted through: - Induction training material for workers - Repeated/refresher Toolbox Talks				
Performance Monitoring [Construction Phase]	Monitoring Indicator	Method of Monitoring	Frequency	Responsibility	Target
	Waste Generation	Review waste logs	Weekly	Contractor's Environmental Specialist	All waste generated is accurately recorded and included in the waste logs disaggregated by waste stream.

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Waste Management Plan					
	Hazardous Waste Storage	Visual Site Inspection Checklist	Daily	Contractor's Environmental Specialist	Weekly site inspection logs confirming adequate hazardous waste segregation and storage practices, no incidents of spills, as well as availability of spill kits and MSDS.
	Solid Waste Storage	Visual Site Inspection Checklist	Weekly	Contractor's Environmental Specialist & HSSE Manager	Weekly site inspection log confirming adequate solid waste segregation and storage practices.
	Waste Transfer and Disposal	Review Consignment notes or certified receipts	Weekly	Contractor's Environmental Specialist & HSSE Manager	All waste transfers to service provider are accompanied by signed and stamped consignment notes or certified receipts.
	Housekeeping	Checklist	Weekly	Contractor's Environmental Specialist	Few or no areas requiring improvement with materials, waste storage bins, and work areas kept tidy and clean.
	Prohibition on Waste Burning	Visual Site Inspection Review of workers Code of Conduct	Weekly Monthly	Contractor Environmental Manager	Weekly site inspection log confirming no burning of waste. Signed Code of Conduct included in all employee/worker contracts which clearly outlines a strict prohibition of any burning of waste and accompanied by fines for violation.
Audit and Inspections [Construction and Operation Phases]	Type			Frequency	Responsibility
	Internal Audit			Monthly	Contractor's Environmental Specialist
	External Audit			Quarterly	Third party Monitoring
	MAAP Audit			Unknown	Contractor's Project Manager and ANE to facilitate and cooperate with auditors
KPIs	The following KPIs should be regularly monitored and accurately recorded to provide sufficient data for possible optimization of management measures:				

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Waste Management Plan			
	KPI	Target	Frequency of Recording Measurement
	Number of contamination incidents due to improper waste management practices	0	Monthly
	Number of on-site inspections of hazardous waste storage area conducted	30	Monthly
	Development of an Accidental Spills and Contamination Incident Summary Reports	1	Weekly
	Non-conformities to this Waste Management Plan	0	Monthly
	Non-conformities to potable water and with wastewater permissible limits	0	Monthly
Reporting	Bi-weekly Site Inspection Reports Monitoring Consultant for Contractor corrective actions Monthly Reports by the Contractor's Environmental Specialist and approved by Contractor's Environmental Manager, submitted to Monitoring Consultant, for submission to ANE Monthly ESHS report submitted by ANE IP to WB Quarterly ESHS Performance Report by ANE IP to WB		
Review	This plan is a dynamic document and the implementation of this management plan should be reviewed and updated quarterly, informed by findings from internal/external audits, inspections, and KPI analysis. Any consistent non-compliance with the measures outlined or related incidents will trigger an immediate review. Additionally, an immediate review will be triggered in response to any changes in Project components, processes, or scope.		

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4.6 Biodiversity Management Plan

Biodiversity Management Plan (BMP)	
Scope of Management Plan	This Biodiversity Management Plan, applies to the construction and operation/maintenance (OM) phase of the Project in order to assess the effectiveness of mitigation measures, identify emerging risks, and support adaptive management.. All Contractors, sub-Contractors, and third-party service providers are required to adhere to this program to ensure the consistent and proper execution of environmental and social (E&S) management and mitigation measures throughout the Project's duration. Monitoring requirements defined in this BMP shall provide the basis for the development of detailed Biodiversity Monitoring Plans to be included within the Contractor's Construction Environmental and Social Management Plan (C-ESMP) and the Operation and Maintenance ESMP (O&M-ESMP). Particular attention shall be given to monitoring wildlife mortality, habitat disturbance, invasive species, illegal hunting and deforestation activities, and fauna-vehicle collision incidents. Monitoring results shall be periodically reviewed to identify trends and mortality hotspots, and corrective or adaptive management measures shall be implemented where persistent or significant impacts are identified.
Relevant Standards	• Mozambique Resolution 5/1995: National Environmental Policy • Mozambique Law No. 20/1997: Environmental Law – Articles 12 and 13 • Mozambique Law No. 16/2014 as amended by Law No. 5/2017: Protection, Conservation and Sustainable Use of Biodiversity, and its Regulation. • Biodiversity Offset Directive, Decree 55/2022 of May 19, 2022 • WB ESS6
Roles and Responsibilities	• Contractor's Project Manager ○ Responsible for the provision of adequate financial, labor and equipment resources for the full implementation of this Biodiversity Management Plan. ○ Accountable for any significant deviations from this management plan resulting in non-compliance and any ensuing adverse Environmental and Social (E&S) impacts. ○ Responsible for authorizing/approving any changes or modifications to this plan as necessary due to inspection outcomes or identified optimization opportunities. ○ Responsible for quarterly review of all performance reports and KPIs in relation to biodiversity management and approving any changes based on the data collected. • Contractor Environmental Manager/Director ○ Overseeing onsite implementation of this plan alongside the Contractor's Environmental Specialist. ○ Supervising the analysis of performance monitoring activities outcomes, and the resulting corrective action program. ○ Ensuring that adequate Health and Safety procedures are in place to protect workers from any fauna encounters with a special focus on poisonous snakes.

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	○ In conjunction with the Procurement Manager, the HSSE Manager is responsible for ensuring adequate provision of standard Personal Protective Equipment (PPE) such as safety goggles, gloves, hard hat, protective clothing, and safety boots. ○ Provide updates to the Project Manager on the progress of biodiversity management and monitoring data and promptly report any increases in breach of code of conduct or poor housekeeping found within the previous monitoring report. ○ Identifying any training needs according to the activities, phase or specific location of the worksite of the project. ○ Ensuring that all the workers, service provider personnel and visitors received the training required according to safely undertake their activities/duties. ○ Ensuring that all workers are properly utilizing PPE gear during construction and on-site presence. ○ In association with the Environmental Specialist, responsible for implementation of a fauna encounter procedure and enforce a temporary stop-work order if needed in response to situations where a serious risk on human health and/or endangered species is likely to occur if construction activities continue. ● Contractor's Environmental Specialist ○ On-site Implementation and monitoring of this BMP. ○ Supervise and facilitate the BMP activities while on-site, including regular monitoring of any signs of evidence left behind by fauna species. ○ In association with the HSSE Manager, responsible for implementation of a fauna encounter procedure and recommend a temporary stop-work order if needed in response to situations where a serious risk on human health and/or endangered species is likely to occur if construction activities continue. ○ Conduct regular site inspections to ensure the full implementation of this BMP. ○ Contractor's Construction Manager ○ Responsible for ensuring that all construction workers fully understand and abide by the measures and procedures outlined in this BMP. ○ Responsible for coordinating with the HSSE Manager and HSSE Supervisors on procedures concerning biodiversity protection, housekeeping and waste management onsite. ○ Coordinate with GNP Directorate/Hunting & Forestry Concessions in order to share (i) procedures in place e.g. quarterly meetings, (ii) information collected on affected fauna and flora species, e.g. road collisions, (iii) information on illegal deforestation and hunting, etc. ○ Coordinate with GNP Rangers/Guards/Hunting & Forestry Concessions, on weekly basis, in order to share (i) procedures in place, (ii) information collected on affected fauna and flora species, e.g. road collisions, (iii) information/signs on illegal deforestation and hunting, etc. ● All Employees and Contractors ○ Implementation of all management procedures and measures as set out by this BMP. ○ Promptly notifying the Environmental Specialist and/or the HSSE Manager of the presence of any fauna within the active construction area, especially snakes or other potentially dangerous species.
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	○ Notify the Environmental Specialist of any clearly observable changes in plant community (i.e., observations of increased plant species growth which may be an invasive or noxious weed).	
Plan Requirements	Actions, Measures and Procedures	Responsibility
	Ensure detailed designs include all road traffic safety measures suggested for wildlife protection including light deflectors. The possibility of installation of a wildlife detection system to alert drivers could be investigated during this time, to understand costs and benefits and verify if GoM is able to sustain and maintain this additional cost which may be prohibitive.	Contractor's Construction Manager and design team
	• Speed management and traffic calming - reducing vehicle speed in high-risk sections identified in the wildlife permeability study (km84-94 and km128-138) is one of the most effective measures to decrease both the likelihood and severity of wildlife–vehicle collisions. Locally reduced speed limits should be implemented in areas of elevated ecological sensitivity, particularly where the road intersects the Gorongosa National Park buffer zone and adjacent high-permeability areas. These speed limits should be supported by appropriate road signage, physical speed-calming elements where feasible (e.g. rumble strips or optical speed reduction markings), and enforcement measures to ensure compliance. Lower speeds not only reduce collision probability but also increase driver reaction time and significantly decrease wildlife mortality rates. Additional areas to be considered include locations identified where animals crossed the N1: ○ 18.233835°, 34.404710°- Piro (approximate chainage km115 + 400) ○ 18.234497°, 34.413110° - Piro (approximate chainage km116 + 500) ○ 18.113897°, 34.877284°- Ndoro (approximate chainage km166 + 400) ○ 18.113600°, 34.896571°- Ndoro (approximate chainage km168 + 900)	Contractor's Construction Manager and design team

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	• Wildlife warning signage and driver awareness - Targeted wildlife warning signs should be installed in sections identified as having elevated collision risk. These signs should be species-specific where possible (e.g. elephant or antelope silhouettes) and placed strategically in advance of known or predicted crossing zones. In addition, driver awareness campaigns — including informational materials at toll points, service stations, or through transport operators — can further increase driver vigilance, particularly during peak wildlife movement periods such as dawn, dusk, and seasonal migration periods. • Road design and visibility enhancements - Improving driver visibility reduces collision risk, especially at night and in areas with vegetation close to the road. Vegetation should be managed along the road verge to prevent tall grasses or shrubs from obscuring animals approaching the road. Where feasible, improved road lighting at critical crossing areas can enhance driver detection of animals without creating excessive disturbance to wildlife. Reflective road markings and delineators can also help drivers anticipate potential hazards. • The mammal identified in the wildlife permeability study with the greatest chance of movement due to its size is the pangolin (<i>M. temminicki</i>). Based on review of the literature, appropriate design consideration for culverts for pangolin and small mammals would be as follows: ○ Size > 1.5 meters ○ Spacing frequency every 0.5 – 1 km in high risk zone for pangolin impact (i.e. if zone is 5 km, then 3 culverts would be needed) ○ Dry ledges or walkways with width > 50 cm ○ Natural substrate flooring > 15 cm over concrete bottom ○ Vegetation for cover appropriate for pangolins should be located at entrances	
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	All machinery and equipment brought from off-site should be thoroughly washed with a jet washer at the designated washdown area prior to entry to the site to prevent potential introduction of invasive plants. [Construction Phase]	Contractor's Construction Manager in association with HSSE and Procurement Manager
	Implement a robust faunal encounter procedure throughout the construction phase such that any interaction between project construction activities with any wildlife species, can initiate a temporary stop-work order or modification in construction activities as needed until the species in question has exited the affected area. [Construction Phase]	Contractor's Environmental Specialist
	Ensure that all trucks and equipment are regularly maintained to minimize avoidable increases in noise level.	Contractor's Project Manager in conjunction with the Environmental Specialist.
	Engage local communities in flora and fauna protection efforts and educate them on the importance of creating stewards for long-term conservation.	ANE Project Manager/Coordinator
	Engage proactively with operators of concurrent Projects to coordinate activities, share monitoring data, and collaboratively develop strategies to minimize indirect and cumulative impacts. Coordinate with GNP Directorate/Hunting & Forestry Concessions and local authorities on monthly basis to ensure cooperation with authorities in order to patrol, monitor and enforce law regarding illegal deforestation and hunting (particularly in GNP buffer zone)	ANE Project Manager/Coordinator in cooperation with the relevant project proponents and governmental bodies
	Regularly monitor terrestrial biodiversity, particularly in sensitive habitats, and develop a response plan to address any significant negative changes.	ANE Project Manager/Coordinator in association with and support from specialized Consultants
	Develop and implement a procedure to monitor wildlife-car collisions by all traffic using the N1 in the project areas or in cooperation with communities and GNP/Hunting & Forestry Concessions in order to assess and manage major mortality blackspots. This includes systematic carcass surveys and incident reporting by road maintenance staff. This information can be updated and included for locations of wildlife crossings, collisions or poaching already identified in the baseline. Frequency of this data collection to be defined by ANE, but ideally once a month to be included in monthly reporting. Where monitoring identifies persistent wildlife mortality, recurring fauna-vehicle collision hotspots, repeated illegal hunting activity, or significant habitat	ANE Project Manager/Coordinator in association with and support from specialized Consultants

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	disturbance, adaptive management measures shall be implemented. These measures may include additional signage, speed reduction measures, reinforcement of fauna crossings, habitat restoration, increased monitoring frequency, awareness campaigns, or other site-specific mitigation measures deemed necessary by ANE and the supervising environmental specialists.		
Capacity Building and Trainings	- The primary management strategy for this Project should focus on proactively collecting and sharing information on (i) wildlife-car collisions and on (ii) illegal deforestation and hunting. This information has to be shared with Contractor Environmental Specialist promptly. - All on-site staff should be trained on: - Awareness and understanding of biodiversity and its importance. - Overview of relevant environmental regulations and laws - Techniques for minimizing habitat destruction and fragmentation. - Strategies for controlling the spread of invasive species and identification of likely invasive species to be present in the specific location of works. - Methods for managing waste to prevent attracting wildlife and the importance of managing pollutants in an environmentally responsible manner. - Procedures for protecting sensitive ecosystems and wetlands. - Guidelines for wildlife and habitat protection - Training on soil erosion and degradation control measures - Information and identification guides for threatened or endangered species likely to be encountered during work activities. - Awareness of the importance of community engagement and stakeholder involvement in biodiversity protection - Encouragement of continuous learning and improvement through feedback and review mechanisms. - These trainings will be conducted through: - Induction training material for workers - Repeated/refresher Toolbox Talks		
Performance Monitoring and Audit and Inspections in Construction and Operation Phases	Type	Frequency	Responsibility
	Site Inspection	Weekly	Contractor's Environmental Specialist
	Number of Complaints and Incidents related to Fauna in the project area	Monthly	Contractor's Environmental Specialist
	Number of wildlife-car collisions Number of illegal deforestation incidents identified Number. of illegal hunting incidents identified	Monthly	Contractor's Environmental Specialist
	Area of trees removed (m ²)	Monthly	Contractor's Environmental Specialist
	Internal Audit	Monthly	Contractor's Environmental Specialist
	External Audit	Quarterly	Third party Monitoring

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	MAAP Audit	Unknown	Contractor's Project Manager and ANE to facilitate and cooperate with auditors
KPIs	The following KPIs should be regularly monitored and accurately recorded to provide sufficient data for possible optimization of management measures:		
	KPI	Target	Frequency of Recording Measurement
	Number of Fauna encountered in the Project site	0	Monthly
	Number of wildlife-car collisions	0	Monthly
	Number of illegal deforestation incidents identified	0	Monthly
	Number. of illegal hunting incidents identified	0	Monthly
	Number of fauna species injured by movement of trucks associated with the Project and construction works	0	Monthly
	Non-conformities to this Biodiversity Management Plan	0	Monthly
	Number and type of flora species planted	TBD	Monthly
	Numbers and heights of trees planted	TBD	Monthly
Reporting	Bi-weekly Site Inspection Reports Monitoring Consultant for Contractor corrective actions Monthly Reports by the Contractor's Environmental Specialist and approved by Contractor's Environmental Manager, submitted to Monitoring Consultant, for submission to ANE Monthly ESHS report submitted by ANE IP to WB Quarterly ESHS Performance Report by ANE IP to WB		
Review	This plan is a dynamic document and the implementation of this management plan should be reviewed and updated quarterly, informed by findings from internal/external audits, inspections, and KPI analysis. Any consistent non-compliance with the measures outlined or related incidents will trigger an immediate review. Additionally, an immediate review will be triggered in response to any changes in Project components, processes, or scope.		

4.7 Archeology and Cultural Heritage Management Plan

ESS8 - on Cultural Heritage recognizes that cultural heritage promotes continuity in tangible and intangible forms between the past, present and future, and has the following objectives:

- Protect cultural heritage from the negative impacts of cultural heritage activities project and support its preservation;
- Address cultural heritage as a fundamental aspect of sustainable development;
- Promote relevant consultation with interested parties regarding cultural heritage;
- Promote the equitable distribution of benefits from the use of cultural heritage.

The cultural dimension in Mozambique is a sensitive element to be considered, with regard to the intrinsic relationship between the population and elements of nature. Part of the population uses natural resources for their livelihood, for example marine or tree species. However, some trees (such as Embondeiro (*Adansonia digitata* - baobab), forests and sacred sites constitute an important spiritual and social focus in the life of traditional communities and, sometimes, can be considered areas of protection (zones) of use and of historical and cultural (Forestry and Wildlife Law -N° 10/99). Interference in cemeteries and trees considered sacred has repercussions on the structuring beliefs and values of the population residing in these areas, and on the solidarity vision of these communities, the basis of social protection against situations such as natural disasters (drought and floods), food insecurity, diseases, orphanhood and /or widowhood. The preservation of landscape (natural) heritage and the relationship between natural elements as a sustainable preservation strategy in the region are also a source of pride, education, preservation of ancestral family heritage or bonds of community solidarity and identity.

Through motivation and increasing awareness, this plan aims to raise awareness about the importance of actions to preserve and rescue the local historical-cultural past.

The Prospecting and Rescue of Cultural Assets Procedure seeks to enhance the historical-cultural heritage of the region affected by the project, taking into account the specificity of cultural practices and local customs, focused on socio-environmental responsibility.

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It also considers the dialogue and transparency of actions related to the project, conducted in accordance with the country's current legislation and the need to understand the socio-territorial dynamics of coexistence and culture of traditional communities concentrated around the project.

Objectives

- Disseminate information about the importance of conserving local cultural heritage as a strategy for educational action and socio-environmental and cultural communication, among people directly and indirectly involved in the project;
- Carry out technical control and monitoring to safeguard any remains of historical-cultural or archaeological value that may be found during excavations or removals. (Regulations for the Protection of Archaeological Heritage Decree No. 27/94 of July 20. Fortuitous Discovery, article 10);
- Contribute to the development of a cultural heritage management strategy in areas of historical-cultural value to be impacted, including the use of rural cemeteries, places of worship and trees considered 'sacred', used by local communities;
- Valuation of the historical-cultural heritage of the affected region, respecting current legislation and the specificity of cultural practices and local customs;
- Ensure safeguarding and monitoring measures for tangible and intangible assets;
- Growing motivation and interest and appreciation of the region's archaeological and historical-cultural heritage.

Archaeology and Cultural Heritage Management and Monitoring Plan	
Scope of Management Plan	This Archaeology and Cultural Heritage Management and Monitoring Plan, applies to the construction and operations phase of the Project. All Contractors, subcontractors, and third-party service providers are required to adhere to this plan to ensure the consistent and proper execution of environmental and social (E&S) management and mitigation measures throughout the Project's duration.
Relevant Standards	• Mozambique Forestry and Wildlife Law -N° 10/99 • Mozambique Regulations for the Protection of Archaeological Heritage Decree No. 27/94 of July 20. Fortuitous Discovery • WB ESS 8
Roles and Responsibilities	• Contractor's Project Manager ○ Responsible for the overall implementation of this Archaeology and Cultural Heritage Management and Monitoring Program.

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Archaeology and Cultural Heritage Management and Monitoring Plan		
	○ Responsible for authorizing/providing appropriate and adequate resources and materials to implement this plan. ○ Responsible for approving any changes and optimizations to this management plan which would improve how any archaeological or cultural finds would be handled. ○ Responsible for quarterly review of performance reports and KPIs as relating to archaeological or cultural finds and compliance with this management plan. • Contractor's Social Specialist ○ On-site monitoring of this Archaeology and Cultural Heritage Management and Monitoring Program. ○ Implementation of Prospecting and Rescue of Cultural Assets procedure and liaison with local authorities for correct handling of any finds. • Contractor's Construction Manager ○ Responsible for ensuring that all construction workers fully understand and abide by the measures and procedures outlined in this Archaeology and Cultural Heritage Management and Monitoring Program. ○ Responsible for coordinating with the Contractor's Project Manager and Contractor's Social Specialist on measures and procedures in relation to archaeological or cultural finds. • All Employees and Contractors ○ Implementation of all management procedures and measures as set out by this Archaeology and Cultural Heritage Management and Monitoring Program. ○ Promptly notifying the HSSE supervisors/officers of any archaeological or cultural finds during the construction process.	
Plan Requirements	Actions, Measures and Procedures	Responsibility
	<u>Control and treatment of possible remains and sacred elements</u> During the construction period: <i>i. Survey and analysis of information for possible traces found</i> During the execution of construction works, before the opening or continuation of a work front, a prior assessment of the existence of archaeological and cultural remains that may be affected by the activities must be carried out. If the construction teams find any archaeological or cultural items, the competent authorities must be notified immediately. A Cultural Resource Management Program must be produced and implemented (in accordance with Mozambique Regulations for the Protection of Archaeological Heritage Decree No. 27/94 of July 20. Fortuitous Discovery) if project activities will impact the site. The cemetery areas of Inchope and Gorongosa municipalities are to be avoided. <i>ii. Monitoring and/or periodic systematic verification/monitoring</i>	Contractor's Project Manager/Contractor's Social Specialist in conjunction with NAE Social Specialist and Provincial Directorate of Culture and Tourism

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Archaeology and Cultural Heritage Management and Monitoring Plan		
	If archaeological or cultural items are found, the following activities will be carried out: • Analysis and study of the physical material culture collected during excavations for prospecting, safeguarding possible traces; • Preparation of a conclusive technical text on the material found in coordination with local and government authorities (Provincial Directorate of Culture and Tourism). • Ongoing monitoring of the cemeteries in Inchope and Gorongosa during activities to ensure no disturbance takes place. <i>iii. Study of specific cases for the replacement/compensation of sacred elements in accordance with the Cultural Resources Management Program produced.</i>	
	<u>Valuing the region's cultural heritage</u> During the construction period this aspect of the plan aims to: • Raise awareness about the regional historical and cultural context and the importance of preserving them; • Raise awareness to workers about the importance of preserving the natural heritage, as well as implementation of the Prospecting and Rescue of Cultural Assets procedure, if applicable. Awareness raising could include: • Preparation of informative-explanatory teaching material. • Holding toolbox talks to raise awareness about the historical and cultural context of the region and its importance using different languages and approaches depending on specific audiences. • Using local community leaders and cultural figures to assist with local cultural knowledge sharing	Contractor's Manager/Contractor's Specialist in conjunction with ANE Social Specialist Project Social Specialist
	<u>Prospecting and Rescue of Cultural Assets (Chance Finds) Procedure</u> If anyone believes they have found archaeological material, they must stop work immediately and follow the procedure below: • All construction activity in the vicinity of the area must cease immediately. • The location of the discovery will be recorded (coordinates) and all remains will be left intact at the site. • The project archaeologist will be contacted, or local authorities will be notified.	Contractor's HSSE Manager in association with the Construction Manager

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	- The potential significance of the remains will be assessed, and mitigating options will be identified. If the significance of the remains is considered sufficient to justify further action and there is no possibility of how to avoid them, the project archaeologist, in consultation with the representative of the Government Directorate overseeing archeological matters, will determine the appropriate course of action. - In the case of human remains, if the remains are assessed as archaeological, then the Provincial Government Directorate that oversees Archeology matters will be consulted to determine how to deal with them. - Options may include avoidance or respectful removal and reburial. - If human remains are found and are not archaeological, the remains will be exhumed in accordance with applicable legislation. - Activities will be halted on that work front until the removal work is completed				
Capacity Building and Trainings	- All on-site staff should be trained on: - The information and management measures included in this plan, including their responsibility for reporting any archaeological or cultural finds and preserving the area until the finds are managed according to the Prospecting and Rescue of Cultural Assets (Chance Finds) Procedure. - These trainings will be conducted through: - Induction training material for workers - Repeated/refresher Toolbox Talks				
Performance Monitoring [Construction & Operations Phases]	Monitoring Indicator	Method of Monitoring	Frequency	Responsibility	Target
	Number of archaeological or cultural finds during construction period	Notification Reports by Contractor's Project manager to ANE	With each find	Contractor's Project Manager [Construction Phase] / Municipality Personnel [Operations Phase]	
	Number of toolbox trainings related to archaeological and cultural heritage and implementation of the procedure in case of any finds during construction period	Monthly statistics report by Contractor's team	Monthly	Contractor's Project Manager [Construction Phase] / Municipality Personnel [Operations Phase]	
Audit and Inspections [Construction Phases]	Type		Frequency	Responsibility	
	Internal Audit		Monthly	Contractor's Social Specialist	

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Archaeology and Cultural Heritage Management and Monitoring Plan				
	External Audit	Quarterly	Third party Monitoring	
	MAAP Audit	Unknown	Contractor's Project Manager and ANE to facilitate and cooperate with auditors	
KPIs	The following KPIs should be regularly monitored and accurately recorded to provide sufficient data for possible optimization of management measures:			
	KPI	Target	Frequency Recording Measurement	of /
	Number of archaeological or cultural finds during construction period		Monthly	
	Number of toolbox trainings related to archaeological and cultural heritage and implementation of the procedure in case of any finds during construction period		Monthly	
Reporting	Bi-weekly Site Inspection Reports Monitoring Consultant for Contractor corrective actions Monthly Reports by the Contractor's Environmental Specialist and approved by Contractor's Environmental Manager, submitted to Monitoring Consultant, for submission to ANE Monthly ESHS report submitted by ANE IP to WB Quarterly ESHS Performance Report by ANE IP to WB			
Review	This program is a dynamic document and the implementation of this management plan should be reviewed and updated quarterly, informed by findings from internal/external audits, inspections, and KPI analysis. Any consistent non-compliance with the measures outlined or related incidents will trigger an immediate review. Additionally, an immediate review will be triggered in response to any changes in Project components, processes, or scope.			

4.8 SEA/SH Prevention and Response Action Plan

This SEA/SH Prevention and Response Action Plan, applies to the construction and operations phases of the Project. This plan is based on the one prepared for the project ESMF and should be adapted as required by the Contractor to include specific local conditions. All Contractors, sub-Contractors, and third-party service providers are required to adhere to this plan to ensure the consistent and proper execution of environmental and social (E&S) management and mitigation measures throughout the Project's duration.

GBV Definition

GBV is a term for any harmful act that is perpetrated against a person's will and that is based on socially ascribed gender differences. GBV includes acts that inflict physical, mental, sexual harm or suffering; threats of such acts; and coercion and other deprivations of liberty, whether occurring in public or in private life. GBV disproportionately affects women and girls across their lifespan and takes many forms, including sexual, physical, and psychological abuse.

The term GBV stems from the 1993 United Nations Declaration on the Elimination of Violence against Women, which defines violence against women as “any act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women.” Discrimination on the basis of sex or gender identity is not only a cause of many forms of GBV, but also contributes to the widespread acceptance and invisibility of such violence—so that perpetrators are not held accountable, and survivors are discouraged from speaking out and accessing support.

Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH)

As noted in the Good Practice Note (GPN) Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH), Sexual exploitation is any actual or attempted abuse of a 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 (UN Glossary on Sexual Exploitation and Abuse 2017, pg. 6). Sexual abuse is defined as actual or threatened physical intrusion of a sexual nature, whether by force or

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under unequal or coercive conditions (UN Glossary on Sexual Exploitation and Abuse 2017, pg. 5). Sexual harassment (SH) is any unwelcome sexual advances, request for sexual favors, and other verbal or physical conduct of a sexual nature.

Gender-based violence (GBV) is an umbrella term for any harmful act that is perpetrated against a person's will and that is based on socially-ascribed (i.e., gender) differences between males and females. It includes acts that inflict physical, sexual or mental harm or suffering, threats of such acts, coercion, and other deprivations of liberty. These acts can occur in public or in private (2015 Inter-Agency Standing Committee Gender-based Violence Guidelines, pg. 5).

SEA and SH are manifestations of GBV. SEA occurs against a project beneficiary or member of project-affected communities. SH occurs between personnel / staff and involves any unwelcome sexual advance or unwanted verbal or physical conduct of a sexual nature. Violence against Children (VaC) can also occur and must be prevented.

The World Bank's Good Practice Note

The WB has developed the Good Practice Note (GPN) Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) in Investment Project Financing involving Major Civil Works to assist Task teams in identifying risks of SEA and SH as opposed to all forms of GBV that can emerge in investment project financing involving major civil works contracts, and to advise Borrowers on how to best manage such risks. The GPN builds on WB experience, relevant international instruments, and good international industry practices, including those of other development partners.

SEA/SH Prevention and Response Action Plan	
Scope of Management Plan	This SEA/SH Prevention and Response Action Plan, applies to the construction and operations phase of the Project. All Contractors, sub-Contractors, and third-party service providers are required to adhere to this plan to ensure the consistent and proper execution of environmental and social (E&S) management and mitigation measures throughout the Project's duration.
Relevant Standards	• Constitution of the Republic of Mozambique. Approved by the Assembly of the Republic in 2004 • Gender Policy and Implementation Strategy. Approved by the Council of Ministers in 2006 • Family Law. Law No. 12/2004, of August 25, 2004

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	• Labor Law. Law No. 27/2007, of August 1, 2007 • Labor Law No. 13/2023 • Traffic Persons Law. • Law No. 6/2008, of 9 July • Law of domestic violence against women Law No. 29/2009, of September 1, 2009. • Multisectoral Mechanism for Integrated Assistance to Women Victims of Violence. Approved in June 2012 • Dispatch of the Ministry of Health on Integrated Assistance to Victims of Gender-Based Violence. Approved on January 12, 2011 • Penal Code Law No. 35/2014, of December 31 • Law 3/2014 • Law 22/2019 • Law 19/2019 • National Strategy for the Prevention and Elimination of Early Marriages in Mozambique (2015-2019). Approved in December 2015 • National Action Plan for Response of GBV in Health Sector 2019-2022 • ESS1: Assessment and Management of Environmental and Social Risks and Impacts sets out responsibilities to assess, manage and monitor environmental and social risks and impacts associated with each phase of the project, supported by the World Bank with Investment Project Financing (IPF). • ESS2: Labor and Working Conditions, describes the importance of creating employment and income for comprehensive financial development and poverty reduction. • ESS4: Community Health and Safety, emphasizes health, safety and security risks and their impact on communities due to project activities. • ESS10: Stakeholder Engagement and Information Disclosure emphasizes the importance of open and transparent participation between the client and stakeholders, and good international practice is an essential element. It contributes to projects in terms of effective stakeholder engagement, improving environmental and social sustainability, increasing project acceptance and successful project design.
Roles and Responsibilities	• Contractor's Project Manager ○ Responsible for the provision of adequate financial, labor and equipment resources for the full-implementation of this SEA/SH Prevention and Response Action Plan. ○ Accountable for any significant deviations from this management plan resulting in non-compliance and any ensuing adverse Social or GBV impacts. ○ Responsible for authorizing/approving any changes or modifications to this plan as necessary due to inspection outcomes or identified optimization opportunities. ○ Responsible for quarterly review of all performance reports and KPIs in relation to biodiversity management and approving any changes based on the data collected.

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SEA/SH Prevention and Response Action Plan		
	• Contractor Environmental Manager/Director ○ Overseeing onsite implementation of this plan alongside the Contractor's GBV Specialist. ○ Supervising the analysis of performance monitoring activities outcomes, and the resulting corrective action plan. • Contractor's GBV Specialist ○ On-site Implementation and monitoring of this SEA/SH Prevention and Response Action Plan. • All Employees and Contractors ○ Implementation of all management procedures and measures as set out by this SEA/SH Prevention and Response Action Plan.	
Plan Requirements	Actions, Measures and Procedures	Responsibility
	All projects (under bidding or under bid evaluation) shall integrate the provisions of GBV and GRM compliances/ monitoring under ESMP in accordance with GoM and WB policies/ law for safety and security of female workers at all levels involved in the project.	ANE GBV Specialist in association Procurement Manager
	Mapping of GBV service providers including an assessment of the capabilities of the service providers to provide quality survivor centred services. This should incorporate an assessment of the capabilities of the service providers to provide quality survivor centred services including GBV case management, acting as a survivor advocate, providing referral services to link to other services not provided by the project itself.	ANE GBV Specialist
	Implementation of a Code of Conduct that specifically prohibits SEA/SH and any sexual contact or activity with minors, defined as persons under 18 (as part of the employment contract) and outlines applicable sanctions in case of violation. The Code of Conduct shall be prepared for and signed by project workers, supervisors and project implementation units' personnel.	ANE GBV Specialist in association Procurement Manager/ Contractor's Project Manager in conjunction with Human Resources+ GBV specialist
	Inclusion of GBV and SEA/SH risk topics in safety induction trainings; continuous stakeholder consultation and citizen engagement, especially independently with women in safe and confidential spaces, carried out in the adjoining villages to inform the community about GBV risks and redressal mechanisms.	Contractor's Project Manager in conjunction with Human Resources + GBV specialist
	Strengthen institutional linkages with other departments and response actors for GBV risk mitigation and response.	ANE GBV Specialist + Contractor's GBV specialist
	Mandatory trainings for the workers and project personnel on state and department policies on sexual harassment in the workplace; unacceptable conduct toward local community members, specifically women; and CoC prohibiting SEA/SH; GRM for reporting as well as response to SEA/SH incidents.	Contractor's Project Manager in conjunction with Human Resources + GBV specialist

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SEA/SH Prevention and Response Action Plan		
	Preparation of the Accountability and Response Framework during project implementation. This will include at minimum a GRM with specific GBV complaint procedures and referral pathways for services, and relevant response, information-sharing, and investigation protocols.	ANE GBV Specialist + Contractor's GBV specialist
	Suitable work and accommodation conditions for migrant women laborers and families of laborers will be provided for in accordance with country labor laws and WB ESS2. This includes gender-equal wage rates, safety & security issues, childcare facilities, health and sanitary requirements and lockable separate toilets for women, and temporary housing for families of laborers during the construction work at the labor camp site with strict compliance to availability of water and sanitation facilities. Strict adherence to child labor norms shall be followed.	Contractor's Project Manager in conjunction with Human Resources + GBV specialist
	Identifying active community members and developing strategies for their involvement to engage in continuous dialogue and consultations with the community and reporting any incidents of GBV in the area concerned as the appropriate community focal point responsible for SEA/SH complaint referral.	ANE GBV Specialist + Contractor's GBV Specialist
	Preparation and display of signage on SEA/SH prevention and zero tolerance against SEA/SH at all strategic locations/hotspots; developing an Information and Education (IEC) strategy and prepare and displaying of IEC material in the local language at identified Hot Spots; GoM policy against sexual harassment and gender equality in the workplace; zero tolerance for SEA/SH in the project, and GRM committee/ contact persons names and numbers, including help line numbers of police and other response actors, for reporting SEA/SH incidents.	ANE GBV Specialist + Contractor's GBV Specialist
	The SEA/SH GRM will include the following steps as well as follow the existing GRM for the SRSEI Project: Step 1: Receive the Complaint (Access and Uptake) The project operates a feedback and grievance redress mechanism (FGRM) which is managed by the PIUs. To ensure that survivors feel confident to disclose their experience of GBV/SEA, they can report cases of GBV through multiple channels: (i) online, (ii) phone, (iii) in-person (for example at the site with facilitators, safe space workers, etc.), (iv) the local service provider, (v) the manager(s), (vi) village councils, or, (vii) the police.	ANE GBV Specialist + Contractor's Project Manager in conjunction with Human Resources + GBV specialist

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Complaints can also be made by another individual on behalf of the survivor (known as a complainant) or a witness. The primary project focal point for receiving SEA / SH complaints is the Project's social / gender specialist; however, complaints may also be received by the Contractor or Supervision Consultant.

A SEA/SH complaint may also be received directly by GBV service providers, who will then refer to the FGRM, if the incident is deemed to be project-related and the survivor agrees to share information in order to make a complaint. If not, only metadata will be shared for monitoring purposes.

All staff, volunteers, consultants, and sub-Contractors are encouraged to report suspected or actual SEA/SH cases. Managers are required to report suspected or actual SEA/SH cases, in alignment with survivor consent and a survivor-centered approach, as they have responsibilities to uphold company commitments and they hold their direct reports accountable for complying with the Individual Code of Conduct.

Information that is captured during intake needs to be as clear and detailed as possible, so that it may be used in verification and disciplinary action. Complete records on intake also help ensure that the survivor/complainant will not have to be subjected to repeated questioning on the incident. The interview should record as much relevant information as is possible and stay as true as possible to the survivor/complainant's words, while recalling that this is not part of an investigative process. Minimum intake questions should capture:

- Complaint reference code.
- Age and sex of the survivor.
- The correct names of all persons involved in the incident and the confirmation that, in the complainant's view, they are linked to the Project.
- The identity of witnesses where appropriate.
- Times, locations, and dates of incident given by the survivor/complainant.
- An accurate account of what was said by the survivor/complainant in their own words.
- Whether anyone else knows or has been given the reported information and
- Any relevant observations made by the person receiving the complaint.
- Available service referrals

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	• The person receiving the complaint must be compassionate, and empathetic, following the guidelines below: • Treat the survivor / complainant with respect and make them feel as comfortable as possible. • Do not judge the survivor / complainant or say anything that might indicate that they are to be blamed for the violence they experienced (e.g., do not ask them why they were in a particular place, what they were wearing, etc.) • Address issues of confidentiality, explaining that there are limits to ensuring confidentiality to the extent that agency staff are obliged to report complaints, while reassuring the complainant that information will only be shared on a “need to know” basis. • Avoid asking questions that are not relevant (for example, the status of the virginity of the survivor is not relevant and should not be discussed). Ask only the number of questions required to gain a clear understanding of the complaint as outlined in the complaint intake form so that it can be referred to the complaint management committee. • Reporting should not be rushed, and complainants should be allowed to fully articulate the situation in their own words before clarifications are sought. • Ensure that all information is well-documented during the in-person interview, so that the allegation can be immediately referred to the investigating agency. • Ask the survivor/complainant how they would prefer to receive further communications from the Feedback Grievance Redress Mechanism (FGRM) and • Make a written record of the complaint using a standard complaint intake form developed for this purpose. If the survivor gives consent to sharing information about the case, the GBV grievance focal point refers the survivor to the FGRM officer at the PIUs. When the survivor’s identity is unknown, for various reasons (e.g., the case is reported by a third party, or the complaint is made anonymously, if allowed), allegation referrals will still be made to the complaint management committee who will determine if an investigation is initiated, such as if sufficient evidentiary detail	

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	has been provided, as well as independent corroborating evidence on the allegation exists. Step 2: Assess (Triage and Treatment) The project complaint mechanism should receive all eligible concerns, both related to SEA/SH and not. If a complaint is received by a GBV service provider, they will need to assess whether the complaint alleges a breach of SEA/SH -related policies and codes of conducts and whether there is enough information to refer the complaint. If the complaint appears to relate to a SEA/SH incident and the complainant provides their informed consent, the GBV focal point should immediately, and within 24 hours from intake, refer the complaint to the FGRM officer. The FGRM officer should establish the nature and severity of the grievance. It is not the responsibility of the GBV service providers to verify the alleged incidents or to establish whether enough evidence is available to start an investigation. If complaints are not related to a breach of provisions on SEA/SH, the GBV service provider will refer the complaint to the Project complaint system through normal channels. The effectiveness of this referral mechanism is particularly important to foster overall accountability, but also because practice has shown that beneficiaries are more inclined to make a complaint through a broader, more comprehensive system rather than reporting concerns to systems that target only sensitive issues such as GBV. The PIU must notify the World Bank Task Team of the SEA/SH incident 24 hours within receipt. Key pieces of data need to be shared: (1) Nature of the case; (2) Project related (Y/N); and (3) Age and/or Sex (if available), (4) General location and information on services referrals. No further information, including name and address of the survivor or alleged perpetrator should be shared with the WB (or anyone else, except in the context of referral for services or investigation, with the consent of the survivor). Step 3: Inform and Refer (Acknowledgement of the Complaint)

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	The GBV GRM officer or facilitators receiving GBV grievances should provide honest, clear and complete information about services available from different agencies that may be able to assist the survivor as well as details on how to access these. Referrals and consent should happen right at uptake, and service providers will usually provide information on legal rights, and other options for survivors. GBV GRM Officer may refer but not be consulting with survivors. For example, that the officer would like to refer them to the GBV Service Provider, who can explain in more detail and help them access any other services they may need. Ultimately, it is up to the survivor, and only the survivor, whether to take up the proposed referrals. The GRM operator or facilitators must explain to the survivor their right to control whether and how information about the case is shared with other agencies or individuals and any implications of sharing information about the case with other actors. The survivor should be given adequate information in order to give their informed consent and should understand that they have the right to place limitations on the type(s) of information to be shared, and to specify which organizations can and cannot be given the information. The GRM operator informs the survivor of any other limits of confidentiality, such as the obligation to share some level of (meta)data about the GBV case with the implementing agency and the World Bank, in accordance with the severity of the incident. The GRM operator documents the complaint and the consent to refer, using the standardized incident intake and consent form, and records the key elements of the incident (not including identifying information) in the Grievance and Complaints Logging System. The incident intake form is then stored in a locked cabinet, ensuring that only a limited and controlled number of staff should have access. Step 4: Investigate and Act (Verification) The GRM officer or facilitators will, with the informed consent of the survivor, share details of the incident confidentially and safely within 24 hours from intake to the GBV Complaint Team. The GRM officer or facilitators will convene a meeting of the GBV Complaint Team to review the complaint and define an investigation process (according to a standard of proof to be established by the Project in accordance with GBV guiding principles, the presumption of innocence and the standards of proof required by labor law and other applicable regulations).

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	The goal of the investigation will be to recommend disciplinary measures and determine a project link towards the alleged perpetrator of SEA/SH, if the complaint is found to be credible through the investigation process. This process will not establish criminal responsibility of an individual, which remains the sole prerogative of the national justice system. During the investigation, the committee should also consider the adoption of cautionary disciplinary measures, both to protect the survivor from interactions with the alleged perpetrator during the verification process and to ensure that risks of ongoing harm against the same or other survivors are mitigated. The investigation process will need to keep the needs of the survivor at the forefront of any investigation action, while at the same time being thorough. Both parties (complainant and alleged perpetrator) should have the right to participate by identifying witnesses and identifying and/or providing relevant information to the complaint management committee. The committee should equally seek out both inculpatory and exculpatory evidence. Investigation steps and meetings must be documented. During the process of investigation, the identity of the survivor/complainant will be kept confidential, and the GBV Service Provider will be in charge of liaising with the survivor if further information is needed. The committee will interview the survivor only if strictly needed, with their consent, and after receiving a GBV briefing, which will include how to interview GBV survivors. When deemed necessary, any interaction with the survivor needs to be organized in a manner that avoids further stigmatization and revictimization of the survivor and protects their confidentiality. In the case of a complaint filed by a third party, the committee should seek to safely and confidentially identify and/or approach the survivor. The GBV service provider will play a role as victim's advocate in the GBV Complaint Team, helping maintain the survivor's confidentiality and advising all steps of the investigation to ensure they adhere to GBV guiding principles. The investigation process should start within a week from the reception of the complaint and last for a maximum of 8 weeks. In the case of a sexual misconduct allegation, it is essential that the GBV actors refer the survivor for evidence gathering and medical care within 72 hours from the intake, including to inform the investigation.

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	If the survivor decides to file a complaint in court, GBV service providers will accompany them with adequate legal assistance (either directly or through referrals). The GBV Complaint Team may decide to suspend the complaint investigation to wait for a court's judgment if a survivor decides to pursue formal justice. However, it is important that complaints are also investigated even if the survivor chooses not to file a formal complaint in court. To verify facts, the committee should first proceed to evaluate the quality of all the available evidence, regardless of who provided it. Any evidence found to be of high quality (such as, for instance, any existing medical evidence of sexual misconducts or available proof of paternity) should be given more weight than any evidence of low quality. In fact, quantity alone should not be the basis for decision-making: the testimony of a single party or witness or the availability of one-piece of medical proof may be sufficient to satisfactorily establish the veracity of a complaint. After assessing the quality of the evidence, the committee members should find the alleged perpetrator responsible for the misconduct if the evidence convinces them to reasonably conclude that a finding of responsibility is justified. In other words, the committee should find that there is sufficient evidence that is relevant, probable, and persuasive to convince them that the staff engaged in the alleged misconduct, and that the evidence supporting a finding of responsibility outweighs any evidence that the respondent is not responsible for the alleged misconduct. Such a decision should be taken by the committee unanimously. If SEA/SH allegations are confirmed, the appropriate party (i.e., the employer of the perpetrator) implements the adequate remedy (e.g., disciplinary action) in accordance with local legislation, the employment contract and the code of conduct. Internal disciplinary measures that the employer's managers may decide to enact are meant to be separate from any charges or sanctions that the official investigation may result into (e.g., monetary fines, detention etc.). Sanctions applied by the perpetrator's employer may include for example: • Informal warning; • Formal warning; • Additional training; • Loss of up to one week's salary;

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	• Suspension of employment (without payment of salary), for a minimum period of 1 month up to a maximum of 6 months; • Termination of employment; • Referral to the police or other authorities as warranted. Sanctions should be proportional to the nature and severity of the incident; for instance, verbal sexual harassment (e.g., catcalling at a work site) should not be treated with the same level of severity in response as a case of sexual assault. Step 5: Validate and Report (Feedback to Parties) The GBV Complaint Team will hold regular meetings if a case is currently being managed, confirming that the survivor has received appropriate support, that the investigation is proceeding in the appropriate manner and that recommended sanctions/disciplinary actions have been carried out by the relevant party. If (i) the survivor has been referred to the relevant GBV service providers, received adequate assistance and no longer requires support, and (ii) appropriate actions have been taken against perpetrators or the survivor does not wish to place an official complaint with the employer, the GRM operator can be informed that the case is closed. The GRM officer or facilitators record the resolution of the incident, the date it was resolved, and marks it as closed. The World Bank is notified that the case is closed. Step 6: Communicate (Monitoring and Evaluation) Practice has shown that the lack of transparency to affected populations, especially to complainants / survivors, during case verification is an ongoing concern. Leaving complainants to feel as if their complaint has gone unaddressed is an accountability failure and will undermine confidence in the GRM and harm beneficiary relations with all humanitarian and development agencies operating on site. The GRM operator will, upon resolution, advise the complainant of the outcome, unless it was made anonymously. The GBV service provider should also remain accessible to the survivor / complainant to answer questions as needed. Once all possible remedies have been proposed, if the victim is still not satisfied, he must be informed of right to legal recourse.	
	<u>Code of Conduct</u> All organizations involved in project implementation are required to develop and implement codes of conduct for the entire organization including managers and	ANE GBV Specialist + Contractor's GBV Specialist

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	staff (example Codes of Conduct are shown in Annexes 3,4,5). As the CoC establishes expectations for behavior within a company and within the community which the company serves or works in, it becomes an instrument to assist in mitigating risks related to GBV. The CoC clearly defines obligations of all project staff (including sub-Contractors and day workers) regarding: • Policies related to GBV, specifically SEA and workplace SH; • Compliance with applicable labor legislation; • Norms and regulations of conduct for all personnel; • An understanding that SEA/SH is prohibited, including any sexual contact or activity with minors (persons under 18), and all transgressions will be acted upon; • The CoC should cover the commitment of the company, and the responsibilities of managers and individuals with regard to SEA/SH, and if possible, other key issues identified in the ESIA/ESMP/C-ESMP, such as ESHS and OHS; and • It is important that the CoC be translated into the local language. A key element of the Code of Conduct will be the sanctions that may be applied if an employee is confirmed as a perpetrator of an incident of SEA/SH. The sanctions need to be proportional to the transgression. • Company Code of Conduct commits the company to addressing GBV issues. • Manager's Code of Conduct commits managers to implementing the Company Code of Conduct, as well as those signed by individuals; and, • Individual Code of Conduct commits each staff of the project to implement and comply with the Company Code of conduct in addressing GBV. In the event of Codes of Conduct are violated, employers should place the worker on an administrative leave pending a full and fair review to determine the veracity of said allegations. Examples of potential sanctions include the following: • Informal warning. • Formal warning. • Additional training. • Loss of up to one week's salary.	

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	• Suspension of employment (either administrative leave as above or without payment of salary), for a minimum period of one month up to a maximum of six months. • Termination of employment; and/or, • Referral to the police or other authorities as warranted.		
Capacity Building and Trainings	• The primary management strategy for this Project should focus on good labor management of the workforce both local hires and external influx to prevent conflict and incidents of GBV. All on-site staff should be trained on: ○ Awareness and understanding of SEA/SH risks. ○ Overview of relevant SEA/SH regulations and laws. ○ Awareness of SEA/SH and Code of Conduct requirements ○ Awareness of Worker GRM. ○ Encouragement of continuous learning and improvement through feedback and review mechanisms. • These trainings will be conducted through: ○ Induction training material for workers ○ Repeated/refresher Toolbox Talks		
Performance Monitoring and Audit Inspections	Type	Frequency	Responsibility
	Site Inspection	Weekly	Contractor's GBV Specialist
	Strengthen institutional linkages with other departments (Health Centres, Police, local NGO's) and response actors for GBV risk mitigation, and mechanism that will be addressed	Quarterly	ANE GBV Specialist
	Prepare signage and Information Education Campaigns material in the local language for policy against GBV at workplace and display in strategic locations	Monthly	ANE GBV Specialist
	Identification and mapping of GBV service providers, including quality and ensuring minimum coverage of medical, psychosocial and legal as per international best practices standards, developing appropriate strategies and modalities of working together, including response protocols and adequate budgetary allocations.	Monthly	ANE GBV Specialist
	Training staff on GBV/SEA / SH: Capacity building on state and department policies on sexual harassment in the workplace; unacceptable conduct toward local community members,	Monthly	ANE GBV Specialist + Contractor's GBV Specialist

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	specifically women and, GBV CoC; GRM for reporting and response of GBV incidents			
	GBV in safety Induction, Toolbox Talk and task Briefing. Inclusion of GBV in safety induction, including preparation and display of signage on zero tolerance against GBV at all strategic location/hotspots	Monthly		Contractor's GBV Specialist
	Training of workers in Code of Conduct and Signing of CoC by workers	Monthly		Contractor's GBV Specialist
	Formation of a GBV complaints committee with clear roles and responsibilities aligned with GBV GRM complaint procedures developed and implemented by the project	Monthly		PIU and GBV Specialist
	Internal Audit	Monthly		Contractor's Social/GBV Specialist
	External Audit	Quarterly		Third party Monitoring
	MAAP Audit	Unknown		Contractor's Project Manager and ANE to facilitate and cooperate with auditors
KPIs	The following KPIs should be regularly monitored and accurately recorded to provide sufficient data for possible optimization of management measures:			
	KPI	Target	Frequency of Recording Measurement	of /
	Successful implementation of agreed SEA/SH Prevention and Response Action Plan		Monthly	
	Number of training courses related to SEA/SH/GBV delivered		Monthly	
	Percentage of workers that have signed a CoC; and/or, Percentage of workers that have attended the CoC training.		Monthly	
	Number of community awareness-raising sessions held, by location		Monthly	
	Number of individuals participating in awareness-raising sessions, disaggregated by sex		Monthly	
	Percentage of SEA/SH survivors who file a complaint under the project GRM and are referred to services on a timely basis (within 72h)		Monthly	
	Percentage of SEA/SH grievance resolved within the prescribed timeframe		Monthly	
	Average timeframe for resolving a SEA/SH grievance		Monthly	

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Reporting	Monthly Reports by the Contractor's Environmental Specialist and approved by Contractor's Environmental Manager, submitted to Monitoring Consultant, for submission to ANE Monthly ESHS report submitted by ANE IP to WB Quarterly ESHS Performance Report by ANE IP to WB
Review	This plan is a dynamic document and the implementation of this management plan should be reviewed and updated quarterly, informed by findings from internal/external audits, inspections, and KPI analysis. Any consistent non-compliance with the measures outlined or related incidents will trigger an immediate review. Additionally, an immediate review will be triggered in response to any changes in Project components, processes, or scope.

4.9 Labor Influx and Working Conditions Management Plan

The Labor Influx and Working Conditions Management Plan aims to establish a clear labor management procedure (LMP) for all Project workers, namely direct project workers, contract workers and community workers, aligned with the requirements of Mozambican labor legislation and the ESS 2 of the World Bank. This plan is based on the one prepared for the project ESMF and should be adapted as required by the Contractor to include specific local conditions.

The LMP has the following specific objectives:

- Promote safe and healthy working conditions.
- Promote fair treatment, non-discrimination and equal opportunities for project workers.
- Protect project workers, including vulnerable categories of workers such as women, individuals with disabilities, children (of working age in accordance with this ESS), and migrant workers, contract workers, community workers and primary supply workers.
- Avoid the use of all forms of forced and child labor
- Support the principles of freedom of association and collective bargaining for project workers in a manner compatible with national legislation.
- Provide accessible means for project workers to raise concerns in the workplace.

ESS2 categorizes workers into direct workers, contract workers, community workers and primary workers. The coastal protection project will include three of these categories of labor established by ESS2, namely: direct workers, contract workers, and primary workers.

It is expected that a large part of the workforce will be recruited locally, however, it is also anticipated that a portion will be immigrant workers, coming from outside of project area due to the nature and magnitude of complexity of construction which may not be fully supplied by local goods and services. When a workforce is brought in from outside the project area, they may be subject to exploitation by Contractors as they are weak in terms of negotiating power. In addition, the risks of social conflicts, Gender-Based Violence, and consequently the increase in the spread of sexually transmitted diseases and HIV/AIDS also increase.

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Scope of Management Plan	This Labor Influx Management Plan, applies to the construction and operations phase of the Project. All Contractors, subcontractors, and third-party service providers are required to adhere to this plan to ensure the consistent and proper execution of environmental and social (E&S) management and mitigation measures throughout the Project's duration.	
Relevant Standards	• The Constitution of the Republic of Mozambique establishes that work constitutes the right and duty of each citizen (Article 84). • Labor Law (Law 23/2007, of 1 August) Labor Law (Law 13/2023) and associated diplomas, the Regulation on General Labor Inspection (Decree nº 45/2009, of 14 August) • Law for the Protection of Persons, Workers and Job Seekers Living with HIV and AIDS Law no. 19/2014, of 27 August (repeals Law no. 5/2002, of 5 February), • Legal Regulation for Work Accidents and Occupational Illnesses. Decree 62/2013 of December 4 establishes the Legal Regulation for Work Accidents and Occupational Illnesses. • WB ESS2	
Roles and Responsibilities	• Contractor's Project Manager ◦ Responsible for the provision of adequate financial, labour and equipment resources for the full-implementation of this Labor Influx Management Plan. ◦ Accountable for any significant deviations from this management plan resulting in non-compliance and any ensuing adverse Environmental and Social (E&S) impacts. ◦ Responsible for authorizing/approving any changes or modifications to this plan as necessary due to inspection outcomes or identified optimization opportunities. ◦ Responsible for quarterly review of all performance reports and KPIs in relation to biodiversity management and approving any changes based on the data collected. • Contractor Environmental Manager/Director ◦ Overseeing onsite implementation of this plan alongside the Contractor's Social Specialist. ◦ Supervising the analysis of performance monitoring activities outcomes, and the resulting corrective action plan. • Contractor's Social Specialist ◦ On-site Implementation and monitoring of this LMP. • All Employees and Contractors ◦ Implementation of all management procedures and measures as set out by this LMP.	
Plan Requirements	Actions, Measures and Procedures	Responsibility
	Direct project workers: will be governed by a mutually agreed employment contract that is in harmony with Mozambican labor legislation (Labor Law (Law 23/2007, of	Contractor's Social Specialist in association HR/Procurement Manager

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	1 August), Labor Law (Law 13/2023) and ESS2. Proof of the legal conformity for local labor contracts is required to be submitted by the Contractor's management.	ANE social specialist will supervise
	Contract workers: Contract workers will be employed, as appropriate, by Contractors, subcontractors and other intermediaries. The workers who will be part of the contracted category will be civil, electrical, and hydraulic engineers, architects, foremen, bricklayers, construction assistants, bricklayer's assistants, shipwrights, painters, plasterers, electricians, plumbers, carpenters. There will also be health, safety and environmental professionals who will ensure the implementation of this ESMP and other specific social and environmental instruments developed within the scope of project implementation.	Contractor's Social Specialist in association HR/Procurement Manager ANE social specialist will supervise
	Main Suppliers: The PIU must carry out a due diligence procedure on all local suppliers of construction materials and equipment used in the project to ensure that there are no significant risks of violating national labor legislation (Labor Law (Law 23/2007, of 1 August) as well as ESS2 requirements, such as labor exploitation child or forced labor, occupational health and safety risks, payment of wages below the minimum wage stipulated for the sector, among other activities. This may include supplier-signed verification of adherence to national laws, good environmental practices (sanitation, health, etc.)	Contractor's Social Specialist in association HR/Procurement Manager ANE social specialist will supervise
	• Implement these labor management procedures; • Include requirements in contracts and enforce and monitor such requirements • Ensuring that Contractors comply with this LMP; • Monitoring to verify that Contractors are complying with labor and OSH obligations in relation to contracted, subcontracted and community workers as required by (Labor Law (Law 23/2007, of 1 August) and ESS2; • Monitoring of Contractors and subcontractors in the implementation of this LMP; • Monitor compliance with occupational health and safety standards in all workplaces, in accordance with national occupational health and safety legislation: The Constitution of the Republic of Mozambique establishes that work constitutes the right and duty of each citizen (Article 84), labor Law (Law 23/2007, of 1 August) and associated diplomas, the Regulation on General Labor Inspection (Decree nº 45/2009, of 14 August), Legal Regulation for Work Accidents and Occupational Illnesses. Decree 62/2013 of December 4 establishes the Legal Regulation for Work Accidents and Occupational Illnesses.	Contractor's Social Specialist in association HR/Procurement Manager ANE social specialist will supervise

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	• WB ESS2 • IFC ESHS Guidelines; • Monitor and implement LMP and OSH training for Project workers; • Ensure that the grievance redressal mechanism for Project workers is established and implemented and that workers are informed about its purpose and how to use it; • Have a system for monitoring and regular reporting on work performance and occupational health and safety; and • Monitor the implementation of the Workers Code of Conduct (CoC). Examples are in Annexes 1,2,3.	
	Contractors will be responsible for the following: • Comply with the requirements of (Labor Law (Law 23/2007, of 1 August) and this labor management procedure; • Maintain records of the recruitment and hiring process of workers; • Clearly communicate the job description and conditions of employment to hired workers; • Have a system for regular review and reporting on work and occupational health and safety performance.	Contractor's Project Manager in conjunction with Human Resources
	a) Selection and Recruitment of Project workforce As specified in (Labor Law (Law 23/2007, of 1 August), the recruitment of project workers will be based on the principles of non-discrimination and equal opportunities. There will be no discrimination with respect to any aspect of the employment relationship, including recruitment, remuneration, working conditions and terms of employment, access to training, promotion or termination of employment. • Recruitment procedures will be transparent, public and non-discriminatory and open in relation to ethnicity, race, religion, sexual orientation, disability and gender; • Clear job descriptions will be provided prior to recruitment and will explain the skills required for each role (academic and professional qualifications and skills required). • All workers will have written contracts describing the terms and conditions of employment and a clear explanation of the content of the contract. Any change in working conditions must be reflected in writing in the addendum to the contract. The employment contract must contain at least the following	PIUs/Contractor's Project Manager in conjunction with Human Resources

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	mandatory clauses: (i) Complete identification of the employer and worker; (ii) Professional category, agreed tasks and activities; (iii) Workplace; (iv) Amount, form and frequency of payment of remuneration; (v) Date of start of execution of the contract; (vi) Express mention of the uncertain term of the employment contract; (vii) Date of conclusion of the contract and, if it has a fixed term, its termination, as well as the cause of termination in contracts with an uncertain term; (viii) Legible signatures of the contracting parties, with the company's stamp being affixed to that of the Contractor; • Depending on the origin of the employer and employee, the terms and conditions of employment will be communicated in a language understandable to both parties; • In addition to written documentation, an oral explanation of the conditions and terms of employment will be provided for workers who may have difficulty understanding the documentation.	
	b) Minimum age of the worker (Labor Law (Law 23/2007, of 1 August) prohibits anyone under 18 years of age from carrying out heavy work in unsanitary conditions. People to be hired on the project will be at least 18 years old. However, in case of specific need and justified and approved by the respective Project coordinator, people aged between 15 and 18 may be hired in the project, with fewer working hours and with the permission of the tutor. Contractors must verify the identification and age of all workers. This will require workers to provide official documentation, which may include a birth certificate, national identity card or passport. If a child under the minimum age is discovered working on the project in breach of labor legislation and ESS2, action will be taken to immediately terminate employment, taking into account the best interests of the child and an incident report will be submitted to the World Bank.	Contractor's Project Manager in conjunction with Human Resources
	c) Working Hours The Labor Law (Labor Law (Law 23/2007, of 1 August) establishes the general working hours of 8 hours per week and 48 hours per week. Article 9 of the Contract Work Regulations establishes that without prejudice to the general regime of eight hours per day and forty-eight hours per week, by instrument of collective labor regulation, the normal daily working period may be exceptionally increased up to the maximum of four hours without the duration of weekly work exceeding 56 hours, except for extraordinary and exceptional work performed due to force majeure. The Contractor must communicate to the Ministry responsible for the work area and to the competent trade union association, the extension of the normal working period	Contractor's Project Manager in conjunction with Human Resources

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	within fifteen days from the date of its adoption, specifying the determining reasons, the number of workers covered and the expected time for the measure to last. Workers subject to extended working periods are entitled, during the duration of the measure, to a period of additional half-day rest per week, in addition to the normal weekly rest day, prescribed in the Labor Law (Law 23/2007, of 1 August, Article 10 of the contract work regulations). Article 85(3) of the labor law establishes that “By collective labor regulation instrument, the normal daily working period may be exceptionally increased up to a maximum of four hours without the duration of weekly work exceeding fifty-six hours, Exceptional and extraordinary work performed due to force majeure does not count toward this limit.” Paragraph 4 of the same article clarifies that the average duration of forty-eight hours of weekly work must be determined by reference to maximum periods of six months. And finally, paragraph 5 adds that the calculation of the average weekly working time, referred to in the previous paragraph, can be obtained through compensation of the hours previously worked by the worker, through the reduction of daily or weekly working hours.	
	d) Right to vacation The employee's right to paid vacation is irrevocable and in no case can it be denied. Workers working under contract and similar contracts with open-ended contracts are entitled to paid holidays, under the following terms: i. One day for each month of service provided, during the first year, if it lasts between three months and one year; ii. Two days for each month of actual work, if the contract lasts beyond one year; iii. Thirty days for each year of effective work, if the contract lasts beyond 3 years. Exceptionally, vacations may be replaced by additional remuneration, at the convenience of the Contractor or the worker, by agreement between both, and the worker must take at least six working days.	Contractor's Project Manager in conjunction with Human Resources
	e) Duties of Project workers Without prejudice to the general duties contained in the Labor Law, civil and complementary construction works workers have the following specific duties: i. Mandatory use of work uniforms as well as equipment or means of personal protection provided by the Contractor intended to protect against risks that could threaten your safety and health during the exercise of your professional activity; ii. Participate in professional training and training programs provided by the Contractor; iii. Participate in induction and training sections on safety and accident prevention techniques at work, as well as the correct use of equipment or personal protective equipment at the workplace.	All project workers

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	f) Duties of the Project implementing agency Without prejudice to the general duties contained in the Labor Law and other applicable laws, the Project implementing agency has the following specific duties in accordance with Article 15: • In matters of social security: (i) Register workers with the National Social Security Institute; (ii) Channel contributions to the National Social Security Institute • In terms of work organization: (i) Provide free work uniforms and equipment or means of personal protection, with the inherent charges being at the expense of the contract; (ii) Prepare a health and safety plan for the work; (iii) Ensure order and safety in the establishment and workplaces; (iv) Comply with legislation on health, hygiene and safety in the workplace and workplace; (v) Submit the nominal list and update it regularly; (iv) Maintain a signaling system in all places where work is carried out, especially when working on public roads; (vi) Ensure discipline and order on the site and workplaces; (vii) Assign qualified or specialized personnel in matters of hygiene and safety in the workplace, in the assembly, verification or control of equipment, which allows works to be carried out safely, in large-scale works contracts. • In terms of collective insurance: (i) Insure all workers against work accidents and occupational diseases, in accordance with current legislation; (ii) Present to the General Labor Inspectorate, at the beginning of the work, the insurance policy or certificate referred to in the previous paragraph.	Contractor's Project Manager in conjunction with Human Resources
	g) Prevention of HIV-AIDS and COVID-19 The Project must, in coordination with the competent authorities, develop information, education and counseling programs in the workplace, to prevent the contagion of workers with HIV-AIDS, COVID-19, malaria and other diseases that may affect the progress of the project.	Contractor's Project Manager in conjunction with Human Resources/Social specialist
	h) Collective rights and collective labor relations Ensure that project workers, without any discrimination and without prior authorization, are granted the right to form an organization of their choice and to join them to defend and promote their rights and socio-professional interests, as established in national labor legislation.	Contractor's Project Manager in conjunction with Human Resources/Social specialist
	i) Social Security Social security contributions for Project workers are mandatory, with the employer contributing 4% and the employee contributing 3%. The amounts deducted for the	Contractor's Project Manager in conjunction with Human Resources

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	social contribution must be channeled to the National Social Security Institute (INSS). Workers must be informed of the benefits of their INSS contributions, as well as their rights.	
	j) Personnel Reduction Before carrying out any collective layoffs, the Project will analyze the alternatives for reduction. If the analysis does not identify viable alternatives to downsizing, a retrenchment plan will be formulated and implemented to mitigate the adverse impacts of the downsizing on workers. The reduction plan will be based on the principle of non-discrimination and will reflect the Project's consultation with workers, their unions and, where appropriate, and the Ministry of Labor and Social Security and will comply with collective bargaining agreements, if any. The Project will observe all legal and contractual requirements related to notification of public authorities, as well as consultation and provision of information to workers and their unions. The client must ensure that all workers receive timely notice of dismissal and severance pay determined by law and collective agreements. All outstanding payments, social security contributions and benefits will be paid (i) to workers at or before the termination of the employment relationship, (ii) where appropriate, for the benefit of workers, or (iii) payment will be made in accordance with a schedule guaranteed through a collective agreement. When payments are made for the benefit of workers, they must receive the respective receipts.	Contractor's Project Manager in conjunction with Human Resources
	Worker Grievance Redress Mechanism (GRM) A worker grievance mechanism (GRM) will be provided to all Project direct workers, Contractors, subcontractors, primary suppliers to raise and resolve workplace concerns. These workers will be informed of the GRM at the time of recruitment, as part of the integration/welcome induction and of the measures adopted to protect them against any reprisal for its use. Measures will be taken to make the GRM easily accessible to all Project workers. The GRM will be at three levels: i. Community level – this level will be implemented in all activities involving community workers and the registration of complaints will be the responsibility of local leaders who must reach the project through the project's local contact point. The Project, through the service provider operating in the community (NGO for example) will have a maximum of 15 days to resolve the complaint and reach an outcome that must be documented and reported to World Bank (WB). ii. Contractor level (where project activities take place) – Each Contractor involved in the project must have a grievance mechanism for all contract	Contractor's Project Manager in conjunction with Human Resources/Social specialist/PIUs

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	workers, subcontractors and suppliers. Complaints can be presented in person (by going to the human resources department and asking the question), by filling out directly the complaints form provided by the Contractor and depositing it with HR, or by using a telephone line dedicated to complaints or labor complaints that the worker can speak anonymously or by identifying yourself, or even by sending an email or WhatsApp to designated contacts. The Contractor has a period of 7 days to investigate and resolve the complaint and communicate the result to the ANE and the WB. iii. ANE level – The mechanism established at this level covers all project workers (direct, contracted, subcontracted, primary and suppliers). All workers, Contractors and subcontractors have the prerogative to present their complaints directly to the ANE using channels such as telephone, e-mail, WhatsApp, voice-mail or even in person. The social specialist will serve as the grievance focal point to record grievances and appeals. He/she will be responsible for coordinating with relevant departments/organization and persons to facilitate the handling of these complaints. If the issue cannot be resolved at the ANE level within 10 working days, it will be referred to the labor arbitration committee. It must be emphasized that GRM is not an alternative/replacement to the legal system for receiving and handling worker complaints. However, this is just one way to mediate and seek appropriate solutions to work-related grievances at project level. All employees always have rights, in accordance with Mozambican labor legislation, to have access to the judicial/legal complaints management system. The ANE will monitor Project worker complaints and produce quarterly summaries and progress reports to be shared with the WB.	
	General occupational health and safety (OHS) guidelines Compliance with international health or safety standards of good practice should be a requirement of any construction contract. To achieve adequate levels of health and safety management, it is highly recommended that Contractors (in particular, main Contractors) are assessed for role based on (among other criteria) their health and safety management system or program, which may form the basis for implementing health and safety in the workplace. It should be assumed that failure to implement minimum OHS practices indicates serious and significant non-compliance with the requirements of this ESMP. The following is a list of health and safety obligations required of Contractors or project implementers; its application is independent of the size of the project.	Contractor's Project Manager in conjunction with Human Resources/OHS specialist

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	The requirements presented below are mandatory for large projects as well as for smaller jobs, where an accredited health and safety management system is not viable. Contractors must have the following topics in their OHS system: A. Identification and assessment of hazards • Carry out risk assessment (risk analysis) of the activities to be carried out using appropriate forms; • Regularly inspect the construction site for hazards • Identify hazards associated with emergency and non-routine situations • Characterize hazards, identify control measures and implement B. Policies and training • Implement a project-specific written policy regarding health, occupational safety, which includes a commitment to comply with, at a minimum, country and World Bank ESS requirements and identifies responsibilities for OSH oversight; • Implement safety and health induction that explains safe work practices, proper use of personal protective equipment (PPE), worker safety and health protection; • Develop occupational health and safety procedures and train workers in their specific functions and health and safety precautions; • For positions that require specialized knowledge, provide the necessary training at no cost to the worker, ideally within working hours, and document it; • Establish protocols for clear communication and coordination; ensure protocols are implemented across the site and between main Contractors and subcontractors, including, where appropriate, permit-to-work systems; • Implement on-site procedures that, at a minimum, comply with the requirements of national legislation, World Bank ESSs and international best practices. • Implement a defined internal system (key performance indicators) to monitor performance, including: (1) regular self-inspection of the site against these standards and (2) tracking of health and safety violations, accidents, incidents, injuries and near misses	

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	• Define emergency preparedness and response measures based on the potential for accidents and emergency situations relevant to the size and nature of the activity; • Develop a procedure to investigate the underlying causes of injuries, health problems, illnesses and work-related incidents and document • For long-term projects, implement feedback system for continuous improvement. C. Project site management • Ensure that site boundaries are well marked, and that access is actively controlled; • Implement good cleaning practices/housekeeping and require that the site be maintained in a generally orderly condition; • Post safety signs and posters, including, at a minimum, signs to mark site boundaries, safety areas, explosion hazards and toxic hazards, etc. • Completely prohibit smoking on site or restrict it to a specific smoking area, away from flammable materials D. Hygiene and first aid • Ensure that first aid kits are on site, as well as someone experienced with their use and trained in basic first aid; • Provide drinking water and sanitation facilities, including a handwashing station; • Require all workers to be vaccinated against tetanus; E. Personal Protective Equipment Require that the equipment be provided as required and that its use be enforced, e.g., Hard hats, safety boots, protective uniforms with high visibility, respiratory protection, adequate and correct eye and ear protection. F. Work at height (scaffolding and ladders) • Scaffolding must be capable of supporting at least four times the maximum intended load, without sedimentation or displacement. • Scaffolding must be on a solid surface - feet cannot use boxes, loose bricks, stones, etc.	

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	• Scaffolding must have guardrails, midrails and toeboards. • Scaffolding must be at least 3 m from any electrical power lines. • Scaffolding must be inspected daily by a competent supervisor. • Scaffolding must have safe means of access, such as stairs or ramps. • Ladders must be protected against inadvertent movement. • Scaffolding must present a safety certificate against defects and up-to-date inspections; • Where necessary, planks used in scaffolding must be protected against splitting. • All scaffolding and equipment used as supports for work platforms must be of solid construction, have a firm base and be adequately supported and maintain their stability. G. Working in Excavations/Trenches • Keep debris at least 1 m away from the edge of the trench • Support or tilt the trench wall for ANY trench 1.75 m or more • Provide a means of egress (ladder, ramp) at least every 10 m H. Hazardous materials • Prohibit the use of lead paint and asbestos in any form in new construction • For rehabilitation or demolition, check before starting work for lead-based paint, asbestos (including tiles) or other hazardous materials. If present, the Contractor must prepare a management plan that specifies safe practices to be followed and determines the disposal of any waste. Adequate training and PPE must be provided.	
Capacity Building and Trainings	• The primary management strategy for this Project should focus on good labor management of the workforce both local hires and external influx to prevent conflict and incidents of GBV. All on-site staff should be trained on: ○ Awareness and understanding of labor management and workers' rights and responsibilities. ○ Overview of relevant labor regulations and laws. ○ Awareness of GBV and Code of Conduct requirements ○ Awareness of Worker GRM. ○ Encouragement of continuous learning and improvement through feedback and review mechanisms. • These trainings will be conducted through: ○ Induction training material for workers ○ Repeated/refresher Toolbox Talks	

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Performance Monitoring and Audit and Inspections	Type	Frequency	Responsibility
	Site Inspection	Weekly	Contractor's Social Specialist
	Number of Complaints and Incidents related to labor issues in the project area	Monthly	Contractor's Social Specialist
	Number of OHS incidents in the project area	Monthly	Contractor's OHS Specialist
	Internal Audit	Monthly	Contractor's Social/OHS Specialist
	External Audit	Quarterly	Third party Monitoring
	MAAP Audit	Unknown	Contractor's Project Manager and ANE to facilitate and cooperate with auditors
KPIs	The following KPIs should be regularly monitored and accurately recorded to provide sufficient data for possible optimization of management measures:		
	KPI	Target	Frequency of Recording Measurement
	Number of OHS incidents	0	Monthly
	Number of labor complaints	0	Monthly
	Number of general grievances	0	Monthly
	Number of GBV cases	0	Monthly
Reporting	Monthly Reports by the Contractor's Environmental Specialist and approved by Contractor's Environmental Manager, submitted to Monitoring Consultant, for submission to ANE Monthly ESHS report submitted by ANE IP to WB Quarterly ESHS Performance Report by ANE IP to WB		
Review	This plan is a dynamic document and the implementation of this management plan should be reviewed and updated quarterly, informed by findings from internal/external audits, inspections, and KPI analysis. Any consistent non-compliance with the measures outlined or related incidents will trigger an immediate review. Additionally, an immediate review will be triggered in response to any changes in Project components, processes, or scope.		

Environmental and Social Management Plan**4.10 Community Health and Safety Management Plan****Principle objectives**

The Community Health and Safety Program (CHSP) aims to:

- Identify and prevent adverse risks and impacts on the health, safety and security of communities affected by the project during its life cycle, both in normal and extraordinary circumstances;
- Avoid or minimize community exposure to project-related road and traffic safety risks, diseases and hazardous materials;
- Have an effective emergency response plan for community risks;
- Ensure the protection of employees and property in order to avoid or minimize risks to communities affected by the project.

Community Health, Safety and Security Management Plan	
Scope of Management Plan	This Community Health, Safety and Security Management Plan, applies to the construction and operations phase of the Project. All Contractors, subcontractors, and third-party service providers are required to adhere to this plan to ensure the consistent and proper execution of environmental and social (E&S) management and mitigation measures throughout the Project's duration.
Relevant Standards	• The Constitution of the Republic of Mozambique establishes that work constitutes the right and duty of each citizen (Article 81, 90). • WB ESS4 addresses risks and impacts to the health and safety of communities affected by projects, as well as the corresponding responsibility of Borrowers to avoid or minimize such risks and impacts, with special attention to individuals who, due to specific circumstances, may be vulnerable.
Roles and Responsibilities	• ANE,IP ○ Ensure that the Contractor includes a Community Health and Safety Program as part of the Contractor ESMP and implements it. • Contractor's Project Manager ○ Responsible for the provision of adequate financial, labor and equipment resources for the full implementation of this Community Health, Safety and Security Management Plan. ○ Accountable for any significant deviations from this management plan resulting in non-compliance and any ensuing adverse Environmental and Social (E&S) impacts. ○ Responsible for authorizing/approving any changes or modifications to this plan as necessary due to inspection outcomes or identified optimization opportunities. ○ Responsible for quarterly review of all performance reports and KPIs in relation to biodiversity management and approving any changes based on the data collected.

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Community Health, Safety and Security Management Plan		
	• Contractor Environmental Manager/Director ○ Overseeing onsite implementation of this plan alongside the Contractor's Social Specialist. ○ Supervising the analysis of performance monitoring activities outcomes, and the resulting corrective action plan. • Contractor's Social Specialist ○ On-site Implementation and monitoring of this plan. • All Employees and Contractors ○ Implementation of all management procedures and measures as set out by this plan.	
Plan Requirements	Actions, Measures and Procedures	Responsibility
	The plan developed by the Contractor should include a detailed analysis of the risks associated with the activities, and address: • Construction activities planned for the execution of the works; • Assessment of a detailed work plan to ensure that there are no risks in terms of community safety and health; • Identification of multiple activities that may take place simultaneously on the construction site or surrounds that may increase risks; • Identification and use of collective protection equipment provided for carrying out the work. • Detailed method statements and risk assessments (covering environment, health and safety and social risks) to mitigate all impacts in accordance with legal requirements and WB ES Standards, in order to guarantee the safety and health of all workers and the local population. • Ensuring the use of qualified and experienced personnel when operating machinery and vehicles.	Contractor's Project Manager in conjunction with EHS Safeguards team
	The Contractor must maintain the surrounding area in good conditions for the movement of vehicles and people, storage of machines, equipment and materials, and implementation of signage. The construction site project must consist of the following parts: • Campsite design layout, circulation routes, areas for storage of materials, areas for products and equipment, fixed installations and other production support, temporary technical networks, waste management site and route of disposal; • Site plans – Location of machines, equipment and materials, first aid boxes, fire extinguishers, etc.	Contractor's Project Manager in conjunction with EHS Safeguards team

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Community Health, Safety and Security Management Plan		
	The Contractor must prepare and maintain an Emergency Response Plan for use on the camp site as well as the work fronts including measures for first aid and the evacuation of victims from the affected community in emergency situations. The following should be included: • A clearly visible list of emergency telephone numbers, i.e., Fire, Police, Hospital, Municipal Services, First Aid contacts, Supervision Engineer, Contractor HSE Officer, Contractor Technical Director, General Manager. • Safety signage identifying, in particular, fire-fighting equipment and the first aid station (fixed or mobile); • Provision of first aid personnel and means of rapid transport and communication; • Provide an effective communication system, identifying the personnel involved in emergency response and their contact details to be able to request the intervention by the necessary authorities. • The plan should cover Sub-Contractors and Independent Workers; and include Work accident insurance; type of individual and collective protective equipment, and training and information relating to Community Health and Safety	Contractor's Project Manager in conjunction with EHS Safeguards team
	In the event of an accident or incident, ANE, IP must be notified within 48 hours. Subsequently, the ANE, IP must notify the World Bank within 48 hours, and under no circumstances later than 72 hours after becoming aware of such an incident or accident. These reports should include specific details of the incident or accident, the immediate measures that have been taken in response to the incident or accident. Following the initial incident report, an investigation should take place involving the Contractor/Site Engineer and interested stakeholders to undertake the Root Cause Analysis (RCA), and Safeguards Corrective Action Plan (SCAP) should be developed. Implementation of the corrective measures should be included in the close out report for the incident.	Contractor's Project Manager in conjunction with EHS Safeguards team
Capacity Building and Trainings	• The primary management strategy for this Project should focus on good labor management of the workforce both local hires and external influx to prevent conflict and incidents of GBV. All on-site staff should be trained on: ○ Awareness and understanding of labor management and workers' rights and responsibilities. ○ Overview of the Constitution of the Republic of Mozambique. ○ Awareness of GBV and Code of Conduct requirements ○ Awareness of Worker GRM. ○ Encouragement of continuous learning and improvement through feedback and review mechanisms.	

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Community Health, Safety and Security Management Plan			
	- These trainings will be conducted through: - Induction training material for workers - Repeated/refresher Toolbox Talks		
Project Performance Monitoring and Audit Inspections	Type	Frequency	Responsibility
	Site Inspection	Weekly	Contractor's OHS Specialist
	Number of Complaints and Incidents related to community risks in the project area	Monthly	Contractor's OHS Specialist
	Number of Community H&S incidents in the project area	Monthly	Contractor's E&S Specialists
	Internal Audit	Monthly	Contractor's Social/OHS Specialist
	External Audit	Quarterly	Third Party Monitoring
	MAAP Audit	Unknown	Contractor's Project Manager and ANE to facilitate and cooperate with auditors
KPIs	The following KPIs should be regularly monitored and accurately recorded to provide sufficient data for possible optimization of management measures:		
	KPI	Target	Frequency of Recording Measurement
	Number of Community H&S incidents	0	Monthly
	Number of labor complaints	0	Monthly
	Number of general grievances	0	Monthly
Reporting	Bi-Weekly Site Inspection Reports by Monitoring Consultant for corrective actions by Contractor Monthly Reports by the Contractor's Environmental Specialist and approved by Contractor's Environmental Manager, submitted to Monitoring Consultant, for submission to ANE Monthly ESHS report submitted by ANE IP to WB Quarterly ESHS Performance Report by ANE IP to WB		
Review	This plan is a dynamic document, and the implementation of this management plan should be reviewed and updated quarterly, informed by findings from internal/external audits, inspections, and KPI analysis. Any consistent non-compliance with the measures outlined or related incidents will trigger an immediate review. Additionally, an immediate review will be triggered in response to any changes in Project components, processes, or scope.		

Environmental and Social Management Plan**4.11 Occupational Health and Safety Management Plan**

Occupational Health and Safety (OHS) Management Plan	
Scope of Management Plan	This OHS Management Plan, applies to the construction and operations phase of the Project. All Contractors, subcontractors, and third-party service providers are required to adhere to this plan to ensure the consistent and proper execution of environmental and social (E&S) management and mitigation measures throughout the Project's duration.
Relevant Standards	• The Constitution of the Republic of Mozambique establishes that work constitutes the right and duty of each citizen (Article 84). • Labor Law (Law 23/2007, of 1 August) and associated diplomas, the Regulation on General Labor Inspection (Decree n° 45/2009, of 14 August) • Legal Regulation for Work Accidents and Occupational Illnesses. Decree 62/2013 of December 4 establishes the Legal Regulation for Work Accidents and Occupational Illnesses. • WB ESS2 • IFC ESHS Guidelines
Roles and Responsibilities	• ANE, IP ◦ Ensure that the Contractor includes an OHS Management Program as part of the Contractor ESMP and implements it. • Contractor's Project Manager ◦ Responsible for the provision of adequate financial, labor and equipment resources for the full implementation of this Community Health, Safety and Security Management Plan. ◦ Accountable for any significant deviations from this management plan resulting in non-compliance and any ensuing adverse Environmental and Social (E&S) impacts. ◦ Responsible for authorizing/approving any changes or modifications to this plan as necessary due to inspection outcomes or identified optimization opportunities. ◦ Responsible for quarterly review of all performance reports and KPIs in relation to biodiversity management and approving any changes based on the data collected. • Contractor Environmental Manager/Director ◦ Overseeing onsite implementation of this plan alongside the Contractor's OHS Specialist. ◦ Supervising the analysis of performance monitoring activities outcomes, and the resulting corrective action plan. • Contractor's OHS Specialist ◦ On-site Implementation and monitoring of this plan. • All Employees and Contractors

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Occupational Health and Safety (OHS) Management Plan		
	Implementation of all management procedures and measures as set out by this plan.	
Plan Requirements	Actions, Measures and Procedures	Responsibility
	Hazard Identification, Risk Assessment and Management - The OHS Specialist together with the project manager, site foreman, and supervisors will carry out hazard and risk assessment for each of the project's activities. Project hazard and risk assessment sessions will be undertaken and the results of these assessments will be recorded in the Hazard Register. - Risk assessment should include: - Identification of hazards - Identification of effects: Impact on human, property, process, and environment shall be considered. - Determination of the risk rating using the risk matrix. - Identification of the mitigation procedures: Identify measures to reduce/control the risk. - Compilation of a complete and accurate record of the whole assessment process. - The assessment will be documented and kept at the site. This document will be made known to all personnel (including subcontractor and employees) working on the project. Specific procedures / work instructions will be prepared as necessary to cover the identified risks Hierarchy of Risk Control - Where hazardous operations are identified a full risk assessment will be carried out. Following risk assessment, possible remedial measures must be defined for situations of excessive risk. A hierarchy of control measures to eliminate or minimize the risk shall be followed in the following order of priority: - First is to try to eliminate the hazard. - If this is not possible, prevent or minimize exposure to the risk by one or a combination of: - Substituting a less hazardous material, process or equipment - Redesigning equipment or work processes - Isolating the hazard - As a last resort, when exposure to the risk is not (or cannot be) minimized by other means:	Contractor's Project Manager in conjunction with OHS Specialist

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Occupational Health and Safety (OHS) Management Plan		
	i. Introduce administrative controls - o Educate workforce regarding risks and controls - o Supervise the operation to ensure adherence to the control measures ii. Use appropriate Personal Protective equipment	
	Accident Reporting and Investigation All accident/incidents and near misses MUST be reported to the injured parties' supervisors. Supervisors or management personnel will ask enough of the required questions to accurately fill out the companies accident report form. All information regarding the reported incidents/accidents will be forwarded immediately to the Health and Safety team. Any accident or incident resulting in a lost-time injury, fatality, damage to property or equipment, a serious "near miss," or the recognition of a potential hazard to health and environment will be investigated. All types of incidents other than a minor injury shall be investigated by the individuals supervisor in conjunction (if appropriate) with the Health and Safety Team using the Incident report and investigation form. If possible, the injured person(s) shall be interviewed to ascertain their version of events. Details of the injured person(s) job(s) and normal duties and responsibilities shall be obtained. Accidents/incidents and near misses will be investigated to establish root cause therefore allowing control measures to be introduced to prevent recurrence. In the event of an accident or incident, ANE, IP must be notified within 48 hours. Subsequently, the ANE, IP must notify the World Bank within 48 hours, and under no circumstances later than 72 hours after becoming aware of such an incident or accident. These reports should include specific details of the incident or accident, the immediate measures that have been taken in response to the incident or accident. Following the initial incident report, an investigation should take place involving the Contractor/Site Engineer and interested stakeholders to undertake the Root Cause Analysis (RCA), and Safeguards Corrective Action Plan (SCAP) should be developed. Implementation of the corrective measures should be included in the close out report for the incident.	Contractor's Project Manager in conjunction with OHS Specialist
	Health and Safety Mitigation Measures <u>Housekeeping</u>	Contractor's Project Manager in conjunction with OHS Specialist

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Occupational Health and Safety (OHS) Management Plan		
	A good housekeeping system shall be in place during the project. Supervisors shall be responsible for housekeeping in their work areas. access ways and emergency exits are to be kept clear of waste disposal and other goods or equipment. Special attention shall be given to maintaining clear walkways, removal of slip, trip and fall hazards, and proper storage of materials. The grounds and open areas surrounding the site shall be kept clean and free from rubbish, debris, wastepaper, and garbage or other refuse. All living and work areas are to be kept clean and tidy. Lunch area and toilets are to be kept in a clean and healthy condition and food scraps placed in food bins. Housekeeping will be part of the weekly inspection. If the weekly inspection demonstrates that day to day housekeeping is insufficient, the work shall be stopped a few hours before the end of the week to perform a general housekeeping. <u>Personal Protective Equipment (PPE)</u> Personal Protective Equipment (PPE) is the last line of defense against hazards. The purpose of PPE is to provide a barrier, which will shield or isolate individuals from the chemical and/or physical hazards that may be encountered during work activities. The Personal Protective Equipment will be used by the workers as a mitigation measure for particular risks. The choice and use of PPEs is determined by the hazard evaluation, the nature of the job and regulations. On the site, the workers shall be provided with safety hard hat, safety shoes, work suits, and reflector vests. When necessary, safety glasses, gloves, dust masks and other forms of PPE shall be used according to the Hazard Evaluation for the task. PPE distribution and control forms must be kept up to date for each worker, and will be filed by the OHS specialist, according to the PPE register. The PPE shall be maintained in good condition or replaced (when necessary) and shall be worn at the site on all relevant occasions as indicated by notices, instructions and proper safe workmanship practice. Signs for the use of PPE shall be prominently displayed all around the working areas.	
	Occupational Health and Safety Hazards and Mitigation Measures Contractor should consider the following OHS hazards, identify all the risks and mitigation measures together with responsibility for implementation (not an exhaustive list and dependent on construction activities to be undertaken): Occupational health and safety topics to be included in OHS plan: • Emergency preparedness and response	Contractor's Project Manager in conjunction with OHS Specialist

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Occupational Health and Safety (OHS) Management Plan		
	• OHS Training • Visitor Orientation • New Task Employee and Contractor Training • Area Signage • Rotating and Moving Equipment • Noise • Vibration • Electrical • Eye Hazards • Welding / Hot Work • Industrial Vehicle Driving and Site Traffic • Working Environment Temperature • Ergonomics, Repetitive Motion, Manual Handling • Working at Heights • Illumination • Fire and Explosions • Corrosive, oxidizing, and reactive chemicals • Personal Protective Equipment (PPE) • Confined Space • Lone and Isolated Workers	
	Medical fitness examination and medical assistance The Contractor must ensure that medical fitness examinations are carried out during the admission process of all workers (as well as undertake periodic medical exams (every 3 months) particularly for those workers exposed to greater risks, e.g., noise, dust). The Contractor must also ensure effective health management in order to prevent the spread of communicable diseases among workers and within the surrounding community. To this end, the following medical facilities for construction workers must be provided by the Contractor: A first aid center at the main campsite to serve Project workers equipped with medicines and basic equipment; • Adequate first aid kits must be provided at the Central Shipyard, at Construction Sites in an accessible location. The kit must contain all basic emergency medicines and dressing materials.	Contractor's Project Manager in conjunction with Human Resources +OHS specialist

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Occupational Health and Safety (OHS) Management Plan		
	• First aid kits must be adequately stocked. Wherever possible, a 24/7 first aid service/facility should be available. • The Contractor must identify and train an adequate number of workers to provide first aid during medical emergencies; • Regular health check-ups should be carried out for construction workers every six months, with health records maintained; • Workers must have easy access to medical facilities and first responders; whenever possible, nurses should be available to workers; • Information and awareness on communicable diseases, HIV/AIDS, COVID-19, etc. should be provided. to workers. • Information and training for workers on the measures to be taken to prevent and protect themselves from health risks. Alternatively, the Contractor may have a contract with a healthcare service provider, who is responsible for carrying out analyses and examinations, as well as providing periodic occupational consultations and all other services indicated above. Medical Registration In addition to ensuring the provision of medical services, a technician (Human Resources department) will be responsible for organizing and managing the completion of the worker's medical records, as well as checking the frequency of periodic occupational health consultations. Medical records document the worker's medical and occupational history, including screening for previous and reversible effects. Medical records must contain observations related to health examinations and are subject to confidentiality and must only be made available to health authorities and doctors from the competent supervisory body.	
	Welfare Facilities The Contractor will provide welfare facilities for the use of the workers and all site personnel. All persons using the welfare facilities must ensure that they are kept in a clean and tidy condition. Smoking will only be permitted in designated areas. The company shall: • Access to an adequate and convenient supply of free drinking water is a necessity for workers;	Contractor's Project Manager in conjunction with Human Resources +OHS specialist

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	• Safe drinking water must be provided in accordance with Mozambican legislation and WHO requirements for drinking water and quality (as specified in Annex 6) must be verified by monthly testing; • All reservoirs used for storing drinking water will be constructed and covered to prevent the stored water from being polluted or contaminated. • Provide appropriate lavatory facilities for both genders (including facilities for menstruation for women). The facilities will be provided with adequate supplies i.e., cleaning water, toilet paper and hand wash soap or similar sanitary products for use by employees. • Segregated toilets must be provided at the work fronts as well as the main camp site.	
	Security • Care will be taken regarding access control of the construction site, which will be maintained during the construction activities. Sufficient hoarding will be placed around the project site with the necessary symbolic safety signs posted. • Unauthorized personnel will not be prohibited on site during this project. All people other than project employees entering a site shall complete the Visitors Log located in the site office. All visitors must report to the Site Office or the Site Foreman on arrival. Visitors to the site must comply with all safety instructions. Any safety equipment that is required to be used on the site will be supplied to visitors.	Contractor's Project Manager in conjunction with Human Resources +security personnel + OHS specialist
	Maintenance of equipment/vehicles All equipment and vehicles should have specific maintenance plans that are followed all evidence kept of maintenance records.	Contractor's Project Manager + Contractor's OHS Specialist
	Training And Awareness All project staff must be trained to execute their jobs safely and productively. The trainings will be documented and reviewed as necessary to ensure consistent safe and healthy work practices. Trainings must be undertaken in a language understood by the work force. <u>Site Induction</u> All new staff and visitors, should receive a site specific induction upon arrival to the site. They must be informed of the hazards in the work place and the systems in	Contractor's OHS Specialist

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	place to manage such hazards. They also need to understand how the work that they will undertake can create a hazard to others in the work place. <u>Tool Box Talks</u> Toolbox talks will be conducted regularly by the site OHS specialist to ensure the flow of information is maintained. All site personnel will be required to attend these meetings. Tool box topics will be relevant to the construction activities taking place on the jobsite. The meetings will focus on discussion on hazards specific to the relevant area of the project as well as any recent incidents in the workplace. It is during these meetings where issues (relevant to the workers) arising from other management meetings will also be communicated.	
	Continuous improvement The Contractor should be committed to the continuous improvement its performance in regards to health and safety issues. To achieve this the Contractor should regularly review its occupational health and safety performance on the site and include a systematic evaluation of the implemented programs, compliance with the OHS plan, and the Constitution of the Republic of Mozambique establishes that work constitutes the right and duty of each citizen (Article 84), Labor Law (Law 23/2007, of 1 August) and associated diplomas, the Regulation on General Labor Inspection (Decree nº 45/2009, of 14 August), Legal Regulation for Work Accidents and Occupational Illnesses. Decree 62/2013 of December 4 establishes the Legal Regulation for Work Accidents and Occupational Illnesses, WB ESS2 and IFC ESHS Guidelines. The Review program can include the following tools: <u>Health and Safety Inspections</u> OHS specialist must conduct weekly site inspections, and review all safety documents. These inspections will help in identifying existing potential hazards and determine their underlying causes. They will also provide a platform for workers and supervisors to communicate any concerns. <u>Health and Safety Audits</u> These can be undertaken by the Engineer with the Contractor. Findings should be recorded and a copy of the audit report attached to the monthly Health & Safety report.	Contractor's Project Manager in conjunction with ESHS Safeguards team

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	Corrective and Preventive Action The ESHS team together with relevant authorities shall take necessary measures to investigate causes of incidents and eliminate the causes to avoid future recurrence, as well as review inspection and audits reports to identify areas of improvement.		
Capacity Building and Trainings	- The primary management strategy for this Project should focus on good labor management of the workforce both local hires and external influx to prevent OHS incidents. All on-site staff should be trained on: - Awareness and understanding of OHS management and workers' rights and responsibilities. - Overview of relevant OHS regulations and laws. - Awareness of hazards, risks, mitigation measures. - Awareness of proper use and maintenance of PPE required for specific activities - Awareness of Worker GRM. - Encouragement of continuous learning and improvement through feedback and review mechanisms. - These trainings will be conducted through: - Induction training material for workers - Repeated/refresher Toolbox Talks		
Performance Monitoring and Audit Inspections	Type	Frequency	Responsibility
	Site Inspection	Weekly	Contractor's OHS Specialist
	Number of OHS Incidents in the project area	Monthly	Contractor's OHS Specialist
	Internal Audit	Monthly	Contractor's Social/OHS Specialist
	External Audit	Quarterly	Third Party Monitoring
	MAAP Audit	Unknown	Contractor's Project Manager and ANE to facilitate and cooperate with auditors
KPIs	The following KPIs should be regularly monitored and accurately recorded to provide sufficient data for possible optimization of management measures:		
	KPI	Target	Frequency of Recording Measurement
	Number of OHS incidents	0	Monthly
	Number of toolbox talks/trainings		Monthly
	Number of general grievances		Monthly
Reporting	Bi-weekly Site Inspection Reports Monitoring Consultant for Contractor corrective actions Monthly Reports by the Contractor's Environmental Specialist and approved by Contractor's Environmental Manager, submitted to Monitoring Consultant, for submission to ANE Monthly ESHS report submitted by ANE IP to WB		

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Occupational Health and Safety (OHS) Management Plan	
	Quarterly ESHS Performance Report by ANE IP to WB
Review	This plan is a dynamic document and the implementation of this management plan should be reviewed and updated quarterly, informed by findings from internal/external audits, inspections, and KPI analysis. Any consistent non-compliance with the measures outlined or related incidents will trigger an immediate review. Additionally, an immediate review will be triggered in response to any changes in Project components, processes, or scope.

Environmental and Social Management Plan**4.12 Traffic Management Plan****General Guidelines on Traffic and Road Safety**

The implementation of a project of this nature brings with it traffic safety risks due to the use of vehicles and equipment. Traffic accidents have become one of the most significant causes of injuries and deaths among members of the public around the world. Traffic safety must be promoted by all project personnel when traveling to and from the work site and when operating project equipment on public or private roads. Additional guidance can be found in Annex 6 which contains excerpts from the Good Practice Note on Road Safety.

Traffic Management Plan	
Scope of Management Plan	This Traffic Management Plan (TMP), applies to the construction and operations phase of the Project. All Contractors, subcontractors, and third-party service providers are required to adhere to this plan to ensure the consistent and proper execution of environmental and social (E&S) management and mitigation measures throughout the Project's duration.
Relevant Standards	• General national legislation in the area of the environment, • Good international best environmental practices, • WB ESS4 • Good Practice Note on Road Safety, from the World Bank (GoodPracticeNoteRoadSafety.pdf (worldbank.org))
Roles and Responsibilities	• ANE, IP ○ Ensure that the Contractor includes a Road Traffic Management Program as part of the Contractor ESMP and implements it. • Contractor's Project Manager ○ Responsible for the provision of adequate financial, labor and equipment resources for the full implementation of this Community Health, Safety and Security Management Plan. ○ Accountable for any significant deviations from this management plan resulting in non-compliance and any ensuing adverse Environmental and Social (E&S) impacts. ○ Responsible for authorizing/approving any changes or modifications to this plan as necessary due to inspection outcomes or identified optimization opportunities. ○ Responsible for quarterly review of all performance reports and KPIs in relation to biodiversity management and approving any changes based on the data collected. • Contractor Environmental Manager/Director ○ Overseeing onsite implementation of this plan alongside the Contractor's OHS Specialist.

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	○ Supervising the analysis of performance monitoring activities outcomes, and the resulting corrective action plan. • Contractor's OHS Specialist ○ On-site Implementation and monitoring of this plan. • All Employees and Contractors ○ Implementation of all management procedures and measures as set out by this plan.	
Plan Requirements	Actions, Measures and Procedures	Responsibility
	<u>Traffic/Road Safety</u> Prevention and control of traffic-related injuries and deaths must include the adoption of safety measures that protect project workers and road users, including those most vulnerable to traffic accidents. Road safety initiatives are commensurate with the scope and nature of project activities should include: • Adoption of best traffic/transportation safety practices in all aspects of project operations with the objective of preventing accidents and minimizing injuries caused by the project, to project workers and the general public. Measures should include: ○ Emphasizing safety aspects among drivers ○ Improving driving skills and requiring a driving license ○ Adopting limits on trip durations and creating shifts for drivers to avoid excessive fatigue ○ Avoiding dangerous routes and times to reduce the risk of accidents ○ Use of speed control devices (governors) on trucks, and remote monitoring of drivers' actions using car tracking/fleet management technologies • Regular vehicle maintenance and use of manufacturer-approved parts to minimize potentially serious accidents caused due to equipment malfunction or premature failure. Where the project may contribute to a significant increase in traffic on existing roads, or where road transport is a component of a project, recommended measures include: • Minimizing pedestrian interaction with construction vehicles; • Collaborate with local communities and competent authorities to improve road signage, visibility and general safety, especially along stretches located near schools or other places where children may be present; • Collaboration with local communities on traffic and pedestrian safety education (e.g. school education campaigns);	Contractor's Project Manager + OHS Specialist

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	• Coordination with emergency teams to ensure that adequate first aid is provided in the event of accidents; • Use locally sourced materials whenever possible to minimize transport distances. Locate associated facilities such as work camps near project sites and organize transportation of workers by bus to minimize external traffic. • Use safe traffic control measures, including custom traffic signs and markers to warn of dangerous conditions.	
	<u>Transportation of Hazardous Materials</u> The project must develop procedures that ensure compliance with local laws and international requirements applicable to the transportation of hazardous materials. Procedures for transporting hazardous materials must include: • Adequate labeling of containers, including identification and quantity of content, risks and sender contact; • Provide a shipping document (e.g., shipping manifest) that describes the contents of the cargo and its associated hazards, as well as the labeling of the containers. The shipping document must establish a chain of responsibilities using multiple signed copies to show that the waste was properly shipped, transported and received by the recycling or treatment/disposal facility; • Ensure that the volume, nature, integrity and protection of packaging and containers used for transport are appropriate to the type and quantity of hazardous materials and modes of transport involved; • Ensure adequate specifications of transport vehicles; • Training employees involved in the transportation of hazardous materials related to proper transportation procedures and emergency procedures; • Use labels and signs (external signs on transport vehicles) as necessary; • Provide the necessary means to respond to emergencies on call 24 hours a day.	Contractor's Project Manager + OHS Specialist
	<u>Emergency Preparedness and Response</u> It is important to develop procedures and practices for handling hazardous materials that allow for quick and efficient responses to accidents that could result in injury or environmental damage. The Project must prepare an emergency response plan that must cover: • Planning coordination: must include procedures for: ○ Informing public and emergency response agencies ○ Documenting first aid and emergency medical treatment	Contractor's Project Manager + OHS Specialist

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	○ Taking emergency response actions ○ Review and update the emergency response plan to reflect changes and ensure that employees are informed of such changes • Emergency equipment: the plan must include procedures for using, inspecting, testing and maintaining emergency response equipment • Training: the Employees must be trained in relevant procedures.			Contractor's Project Manager + OHS Specialist
	The Contractor must prepare specific traffic management plans for vehicle movements to be undertaken safely under various conditions with changes in access roads, local community populations (markets, schools, hospitals, etc..) including diagrams indicating traffic signs and speed calming measures and how flag persons will be deployed. Traffic management must also consider existing public utilities such as underground or overhead electricity, water or telecommunication lines.			
Capacity Building and Trainings	• The primary management strategy for this Project should focus on traffic and transport management to prevent road traffic incidents. All on-site staff should be trained on: ○ Awareness and understanding of traffic and transport management requirements. ○ Safe driving behavior ○ Overview of relevant regulations and laws. ○ How to manage implementation of traffic control plans – signage, speed calming measures, etc. ○ Good flag person behavior and how to manage traffic. ○ Encouragement of continuous learning and improvement through feedback and review mechanisms. • These trainings will be conducted through: ○ Induction training material for workers ○ Specific traffic safety trainings ○ Repeated/refresher Toolbox Talks			
Performance Monitoring and Audit and Inspections	Type	Frequency	Responsibility	
	Visual Site Inspection + verification of Contractor Traffic Management Plan and sketches for each section of road affected	Weekly	Contractor's OHS Specialist	
	Number of Road traffic Incidents in the project area	Monthly	Contractor's OHS Specialist	
	Internal Audit	Monthly	Contractor's Social/OHS Specialist	
	External Audit	Quarterly	Third Party Monitoring	
	MAAP Audit	Unknown	Contractor's Project Manager and ANE to facilitate and cooperate with auditors	
KPIs	The following KPIs should be regularly monitored and accurately recorded to provide sufficient data for possible optimization of management measures:			

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	KPI	Target	Frequency of Recording Measurement
	Number of road traffic incidents	0	Monthly
	Number of trainings completed		Monthly
Reporting	Bi-weekly Site Inspection Reports Monitoring Consultant for Contractor corrective actions Monthly Reports by the Contractor's Environmental Specialist and approved by Contractor's Environmental Manager, submitted to Monitoring Consultant, for submission to ANE Monthly ESHS report submitted by ANE IP to WB Quarterly ESHS Performance Report by ANE IP to WB In the event of an accident or incident, ANE, IP must be notified within 48 hours. Subsequently, the ANE, IP must notify the World Bank within 48 hours, and under no circumstances later than 72 hours after becoming aware of such an incident or accident. These reports should include specific details of the incident or accident, the immediate measures that have been taken in response to the incident or accident. Following the initial incident report, an investigation should take place involving the Contractor/Site Engineer and interested stakeholders to undertake the Root Cause Analysis (RCA), and Safeguards Corrective Action Plan (SCAP)		
Review	This program is a dynamic document, and the implementation of this management plan should be reviewed and updated quarterly, informed by findings from internal/external audits, inspections, and KPI analysis. Any consistent non-compliance with the measures outlined or related incidents will trigger an immediate review. Additionally, an immediate review will be triggered in response to any changes in Project components, processes, or scope.		

4.13 General Guideline for Use of Security Personnel in the Project Protection Security Management Plan

It is important that ANE IP, who are project implementing agency, understand the link between security personnel and community relations, to ensure that the use of security (when necessary) does not create tension with the surrounding community and must follow ESS 4 as well as the "World Bank Good Practice Note on Assessment and Management of Risks and Impacts of the Use of Security Personnel, 2018". Important steps to ensure the safe use of security personnel include:

(i) assessing the risk to the local community, including vulnerable groups who may be more susceptible, managing and mitigating that risk, managing workers and Contractors, directly engaging with security workers, use of proportionate responses (use of force only to defend or prevent escalation), and immediate investigation and response to any allegations of security interventions. Specific training¹ on human rights standards and practices is recommended for security personnel hired for use on the Project on Democracy, human rights and governance. Direct consultation and engagement with the community is one way to assess the risks that may be involved in hiring security personnel, as well as providing the community with a grievance mechanism through which complaints can be registered.

Risk Assessment

Assessing and analyzing potential security risks is the first step in determining the level and types of security scheme that a company may need. The level of effort required should be proportionate to the threat environment in which the project operates, ranging from a relatively simple risk screening to carrying out a more formal and comprehensive Security Risk Assessment that may need to consider, in more depth, aspects political, socioeconomic, military and others. As a starting point, the project should consider likely threats that may require a response from security personnel and reflect on the potential impact such a response would have on community members. It is also important to consider whether and how the company's presence itself could affect the safety of the local community. The Risk assessment must answer the following questions:

- i. What are the potential risks to the project that may require a security response?

¹ International Finance Corporation. 2017. Good Practice Handbook. Use of Security Forces: Assessing and Managing Risks and Impacts. Guidance for the Private Sector in Emerging Markets. Washington, DC: IFC. Available at: https://www.ifc.org/wps/wcm/connect/ab19adc0-290e4930-966f22c119d95cda/p_handbook_SecurityForces_2017.pdf?MOD=AJPERES

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- ii. How likely are these risks to occur?
- iii. What would be the likely security response?
- iv. If a security incident/response occurs, what would be the impacts on the company?
- v. How serious would these impacts be on the company?
- vi. If a security incident/response were to occur, what would be the impact on the community?
- vii. What are possible mitigation measures to avoid or reduce negative impacts?
- viii. How serious would these impacts be?
- ix. Answering these questions in a matrix would constitute the project security risk assessment.

Personnel Management – Private Security

The involvement of some type of private security, whether in-house workers or contracted security providers, is common practice for many organizations and projects operating within the national territory. Although private security may vary in terms of form and tasks, the objective of its presence should be the protection of people and property, as well as the reduction of risks. Decisions about the type, quantity, responsibilities and whether or not to arm private security forces must come from an assessment of security risks and appropriate responses. The top 10 issues to consider when hiring security are:

- (i) Oversight - outsourcing security to contracted providers does not outsource the project's responsibility for private security management. It is expected that the project's supervision and influence over the behavior and quality of its workers or service providers will be intense.
- (ii) Contractual Agreement - Management of the company's relationship with private security must be done through a formal process. For security personnel who are project employees, this must be done through the employment contract and internal company policies and procedures. For external private security providers, as with any other Contractor, the project must outline its performance expectations in the form of a detailed contract; the company must also ensure that the provider's policies and procedures are adequate, including performance standards for security tasks and expectations of conduct.
- (iii) Verification and Hiring Procedures - Who provides security is as relevant as how security is provided. ESS4 states that the borrower “will make reasonable inquiries to ensure that workers directly or contracted by the Borrower to provide security services are not

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- implicated in past abuses.”² This process may include, for example, inquiries into the reputation of the security provider alongside other companies, representatives of foreign governments, United Nations missions, International Red Cross and Red Crescent, and other entities.
- (iv) Code of Conduct- The borrower must demand appropriate conduct from the security personnel they hire or work with. The company must have a clear policy regarding the Code of Conduct, and security personnel must receive clear instructions on the objectives of their work and permitted actions based on international good practice and applicable national legislation.
 - (v) Principles of Use of Force – The Borrower will not sanction the use of force by direct or contracted workers during the provision of security services, except when such use of force is used for prevention and defense purposes, proportionate to the nature and extent of the threat”³. Private security guards must operate under a specific use of force policy, which must be stated in the officer's contract and/or scope of work (for directly employed security personnel) or listed as a separate set of protocols and/or included within the scope of the Security Management Plan and policies of private security providers (for contracted security personnel). Guards must clearly know how to respond and how to use available tools (e.g., weapons or other security measures) appropriately in the face of a threat. The appropriate use of force must be included in the security training program, and all use of physical force must be reported and evaluated by the borrower.
 - (vi) Training – The project must only use security professionals who are and continue to be properly trained. In particular, guards must receive training in the use of force (including less-lethal weapons and, if applicable, firearms) as well as appropriate conduct (generally aimed at reinforcing respectful behavior) toward workers and affected communities, the which is generally done through examples and/or scenarios
 - (vii) Equipment- all security guards must be provided with adequate equipment to carry out their responsibilities. Equipment generally includes uniforms with appropriate identification, radio and other communications devices, and other equipment deemed necessary by the Security Risk Assessment and required by the Security Management Plan

² World Bank ESS 4, paragraph 26

³ World Bank ESS 4, paragraph 24

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- (viii) The Decision to Arm - In general, guards They must only be armed when the security risk assessment demonstrates the existence of a threat that can only be faced by armed guards, thus equipped to protect human life and must be in accordance with applicable national legislation.
- (ix) Incident Reporting and Investigation - The Borrower will review all allegations of illegal or abusive acts by the security team, take action (or delegate such action to relevant parties) to prevent recurrence, and, when necessary, report the acts illegal or abusive to the competent authorities. It is good practice to: 1) receive safety-related reports and complaints; 2) gather and document relevant information 3) evaluate available information; 4) protect the identity of alleged victims and those reporting the complaint or incident; and 5) report illegal acts to state authorities.
- (x) Monitoring - it is good practice for companies to continually monitor, as part of their supervisory responsibilities, the on-site performance of contracted security providers to ensure professional and appropriate conduct. This monitoring may include reviewing policies and materials, conducting periodic audits, assisting or potentially supporting training, and considering any reports of illegal or abusive acts by security personnel. Dialogue with employees or community members who have regular contact with security officials can also generate valuable information. It is advisable that companies consider including sanctions in contracts with security providers (such as withholding payments or canceling the contract) in order to maintain their influence when they fail to meet performance expectations.

Management of the Relationship with Public Security

Interaction with public security forces can be a challenge for the borrower, given that they do not exercise control over the decisions or behavior of public security personnel and may have limited influence on this sense. Even so, in the eyes of the local community and other interested parties, the project may appear associated with the actions of public security forces. Consequently, in situations where security forces respond to project-related incidents, it is in the borrower's interest to encourage public security personnel to behave in accordance with the principles established for public security personnel in ESS⁴. At a minimum, the subproject is encouraged to assess the risks posed by public security forces and look for opportunities to work with them to try to reduce those risks.

⁴ World Bank ESS4, paragraph 25

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Preparation of the Security Management Plan

The Security Management Plan is an important industry standard instrument that describes how security will be managed and provided and what resources will be required. The Security Management Plan is the company's comprehensive guidance document that contains all other security-related procedures and protocols. It should also consider the risks and impacts to the community posed by the project's security schemes and include provisions and mitigation measures to address them. The Security Management Plan must be linked to the Security Risk Assessment and respond to the identified risks, providing guidance, organization, integration and continuity for the company's security and asset protection program. The level of effort in assessing and managing security risks must be proportional to the level of security risks associated with the project and its operational context.

Assessment of Reports or Incidents Related to Security Personnel

It is good practice and part of sound risk management for subprojects to have clear policies and procedures for dealing with reports and incidents related to security. In this project, the Grievance Mechanism presented in this ESMP will be followed for the presentation of complaints and their resolution. Every safety-related report or incident must be documented and then evaluated with the aim of determining whether company policies and procedures have been followed and whether corrective or preventive measures are necessary. The level of depth and detail of the investigation will reflect the severity and credibility of the report or incident. Illegal or abusive acts must be reported to the competent authorities, and the project is advised to actively monitor the status of any ongoing investigation carried out by public authorities. The project is also encouraged to report the outcome to complainants or other relevant parties using the project's existing grievance mechanism, bearing in mind provisions regarding confidentiality and the need to protect victims. Where appropriate, it can be constructive to share lessons learned, where relevant, and also the efforts undertaken to incorporate them into company policy and/or practice.

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4.14 Resettlement Plan

Submitted separately

4.15 Grievance Redress Mechanism Plan

Grievance redressal mechanisms are a way to provide an effective avenue to express concerns and obtain solutions for communities, promote a mutually constructive relationship and improve the achievement of project development objectives. The complaints submission and resolution mechanism to be followed in this Project is established in the Stakeholder Engagement Plan (SEP). It sets out the steps to be followed to resolve complaints from those affected, the role of different stakeholders involved in the resolution process and deadlines for making a decision on complaints. The types of claims that parties may raise include, but are not limited to:

- Negative impacts on communities or individuals, which may include, financial loss, physical damage and disruption caused by construction or operational activities;
- Health and safety risks resulting from project implementation;
- Negative impacts on the environment; and
- Unacceptable worker behavior, including gender-based violence and sexual abuse and exploitation (including engaging in sexual behavior with minors, as defined in the Project Code of Conduct.

It is essential that affected parties are informed that all complaints submitted, regardless of the phase or activity of the project, and the channel used to register the complaint, will be handled by a single mechanism. Not only should project affected people (PAPs) be able to raise their complaints and receive adequate assistance, but they should also be satisfied that solutions are found that mutually benefit the PAPs and the project. The mechanism ensures that the PAPs have access to legitimate, reliable, transparent and efficient institutional mechanisms that respond to their complaints without impacts on the complainant (cost, discrimination, retaliation, etc.) in all phases of the Project (planning, implementation and closure).

Procedures for general grievance redress

It is important to establish a Grievance Redress Mechanism (GRM) whenever there is a possibility of risks or negative impacts caused by the project. This mechanism serves to prevent and resolve individual and community complaints, reduce risks, manage expectations and support processes that create positive social changes. Complaints could take the form of specific grievances about impacts or damage considered to have been caused by the project or about access to the project including stakeholder participation process. The grievance mechanism was developed with the following objectives:

- To build and maintain the trust of all stakeholders;

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- To prevent adverse consequences of failure to properly deal with complaints; and
- To help identify and manage stakeholder concerns and thus the effective management of associated risks.

The GRM is based on the following principles and commitments:

Accessibility: Ensuring that the GRM is accessible to those who wish to submit a complaint. It includes the ability to submit a verbal complaint;

Dissemination: Dissemination and explanation of the GRM to all external stakeholders. This dissemination will be implemented in a format and language that is easily understood by the local population and / or communicated orally in areas where literacy levels are low;

Transparency: Clarification from the outset as to who should use GRM and assure stakeholders that there will be no costs, fees or consequences associated with filing a complaint. Interested parties will be informed that the complaint can be submitted anonymously and that they can request that their identity be kept confidential;

Efficiency: Communicate publicly and set a deadline by which all registered grievances will be answered and ensure that all response times are met. This will help to relieve frustration by letting people know when they can expect to be contacted and/or receive an answer. During critical periods, such as during the project's construction phase, it is important to have an early (if not immediate) response to sensitive grievances.

Justice: Guarantee the possibility of an appeal in case of disagreement with the action to address the grievance. PIU will establish a Complaints Review Committee to hear appeals.

Written records: Keep written records of all complaints received in a database, to ensure efficient management of the resolution.

Conflicts or grievances may arise at any time during project implementation. Conflicts generally arise from poor communication, inadequate or lack of consultation, inadequate flow of accurate information, or restrictions that may be imposed on people through the implementation of Project activities. Grievances Redress Mechanism will be available for the subproject affected persons to be able to address their issues and to solve prior to use formal legal grievance system. Through this mechanism, PAPs will be able to react on any damages occurred during the ESMF and RPF implementation, including aspects related with GBV/SEA and misbehaviour of Contractor workers.

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A good communication strategy may prevent or reduce misunderstanding and grievances, therefore awareness raising about Project activities will be one of strategies that ANE will adopt. Consultations and negotiations will be carried out with PAPs where there are indications of potential conflicts. Consultants, PROSIR, Contractors and Engineers have to be aware of managing conflicts and communities to know their rights and obligations, how to obtain legal advice and representation, and how to seek redress against what they regard as unfair practices by PROSIR, Contractor or its workers.

The Project Authority in terms of grievances will be the ANE, including its delegation at each province. Project Communication Plans should prioritize awareness-raising about the structures that are available to redress more serious grievances that cannot be addressed satisfactorily locally.

The project level GRM will be established with multiple channels, to facilitate individuals and communities to voice/express general complaints, queries, and concerns including those not necessarily related to safeguards.

At local level, community leaders will be trained in communication and initial grievances reception. Grievance response at community level will also be linked to the community court system where these have been duly constituted, so that they can be used for resolving as many grievances as possible at local community level.

The proposed project GRM will take into consideration the established community and local-level feedback systems as an entry point, for which the traditional and local leaders will play an important role in receiving and directing complaints for resolution.

An affordable and accessible procedure for PAPs settlement of disputes arising from project, the GRM will consider the availability of community and traditional dispute settlement mechanisms and judicial resources.

The proposed GRM, will be organized in such a way that it is accessible to all project beneficiaries and surrounding community members potentially affected, with particular attention for the vulnerable groups such as women, elderly, children, illiterate and poor people. The priority of this mechanism is to capture any potential grievance case in its initial stage and

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be able to address the issues and to solve prior to use formal legal justice system. Once the subproject is defined and the preliminary footprints of the site-specific project are defined, public consultation will be organized within the project area and surrounding community. In these meetings, the affected community will be informed about existence and procedures of the grievance redress mechanism, communication channels, entry points and response timing as well.

The GRM will involve a Project Liaison Committee (PLC) which includes representatives of the district government (representatives of the education, health, police, Infra structure and Agriculture sectors) and service provider for GBV, ANE Delegates and HdQ. Through this mechanism, PAPs will be able to complain on any discrimination cases, damages occurred during the works, land acquisition or land use change or any other issue that might arise during project implementation process. A simple and easier system for GRM will be established by PIU and disseminated through ANE Delegation. PIU, has to verify at the time of project implementation, if any of the community members has ownership claims on the property in case this is a public land, where the project needs to expand to agriculture area or change the use of land. A pre-disclosure phase is recommended in cases when PAPs are not identified as they could no longer reside in the expropriated areas (migrated in another region of the country or emigrated abroad). The notification should be done by the implementing Agency through publication of PAPs name at the site-project level or through the local leaders.

A Project Liaison Committee (PLC) will be established per district, involving members of localities or villages along the N1 road. It is expected that the community members at local or village community level submit their grievances to local authorities for initial solution. Wherever possible, grievances should be solved amicably and make use of existing structures to solve it. However, where such approach is not possible, those wishing to express their grievances may do so through the community, family member and administrative post and/or district government, who will consult with the ANE/PIU to determine the validity of claims and rule on the final settlement.

General principles and procedures must be established by the subprojects and publicized, including:

- Verbal communication should be in local relevant languages, but all records of communications must be in Portuguese.

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- Grievance forms should be prepared by ANE HdQ and be available for the delegate at provincial level, PAPs may also log their own documented grievances as they wish.
- An initial response must be provided to the communities in a recommended period of 10 days. This period will vary depending on the channel through which the grievance was received. A phone call or email could be responded to in a much shorter period.
- Detailed procedures to redress grievances and the appeal process should be disseminated among PAPs who should be empowered to use them.
- Measures must thus be put in place to ensure that solutions are reached by consensus based on negotiation and agreement.
- As appropriate per sub Project area, specific people should be chosen to represent their local communities during the implementation of the SRSEI especially for grievance presentation and to accompany the redress process. These men and women will be provided a first level of listening and informal resolution.
- The project should ensure that complaints can be received through multiple channels including toll free phone lines, sent through email, written or verbal. In the case of verbal complaints, the project should arrange to have them written and submitted as record.

The ANE delegate, through the PIU with the assistance of GRM service provider, should create awareness that may also be used for the communication of grievances for informal resolution. Efforts will be made to ensure that it includes representatives of women and youth with whom leaders will consult to offer tangible solutions. Formal grievances redress and conflict resolution processes should follow the general steps outlined below:

Step One

Issues of concern with relationships with the PROSIR, neighbouring communities or external stakeholders, should be presented to the community leader or to the environmental officer/social facilitator (SF) of the PROSIR/ Engineer at the site, to try and resolve immediately or as appropriate, to transmit directly to the site meeting for resolution.

The Environmental officer/social facilitator then will submit to the GRM responsible person for registration and he/she will screen grievances presented to initially decide if the grievance is to be accepted or not. If not accepted, answer shall be given to the offended for clarification and agreement before closure of the grievance. This should be processed within three (3) days.

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Grievances may be resolved directly by the EO/SF of the Contractor/ PROSIR, but where they require redress via other agencies they should be passed to the appropriate level or for ANE Delegation level for recommending solutions accordingly.

Grievance redress may require shorter (maximum 3 day) or longer (10 day) periods depending on the subject of the complaint. To facilitate speedy resolution of grievances, a Committee should be established at this stage to process grievances that can be handled at local level.

Step Two

If the aggrieved person is not satisfied with the Step One decision, he/she shall forward the case to the Project Liaison Committee's (PLC) attention with a preliminary report prepared by the engineer. The report should contain the details of the grievance and hearing date. The PLC will be composed of representation from key project stakeholder such as PLC may engage with relevant Government and local authorities to help resolve these problems in such a way that the interests of communities are protected.

It may be necessary for operational reasons at sub-district level to have a multi-sector channel to fairly hear grievances, and respond to issues that may involve more than one sector. The period for informing the aggrieved person of the redress steps must be followed, and the periods expected for redress communicated to them. The timeline for processing the complaint and reaching a decision may be shorter (maximum 3 days) or longer (10 days) periods depending on the nature of the complaint.

Step Three

If the PAP is still dissatisfied with the decision taken after Step Two, he/she shall forward the case to ANE Delegate/ANE HdQ for attention of the PIU. The grievance shall be forwarded to PIU with all the documented details of the case to date. Communication with the PIU may also be carried out via community representation on the PLC. A committee should be established at PIU level to discuss and reach a decision on the complaint. Again, time line for reaching a decision should not exceed 10 days.

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Step Four

If no amicable solution is reached up to Step Three, as an ultimate recourse the aggrieved person may submit the case to the Provincial / District court system to seek reparation. This final step is an option that must always be available, but PAPs are encouraged to use GRM levels first. Timely communication and open negotiation are the main issues to satisfy the PAPs.

The institutional arrangement and the principles of community consultation and participation that are intrinsic to the project are designed to allow the process to detect and deal with problems in a timely and satisfactory manner for all parties concerned.

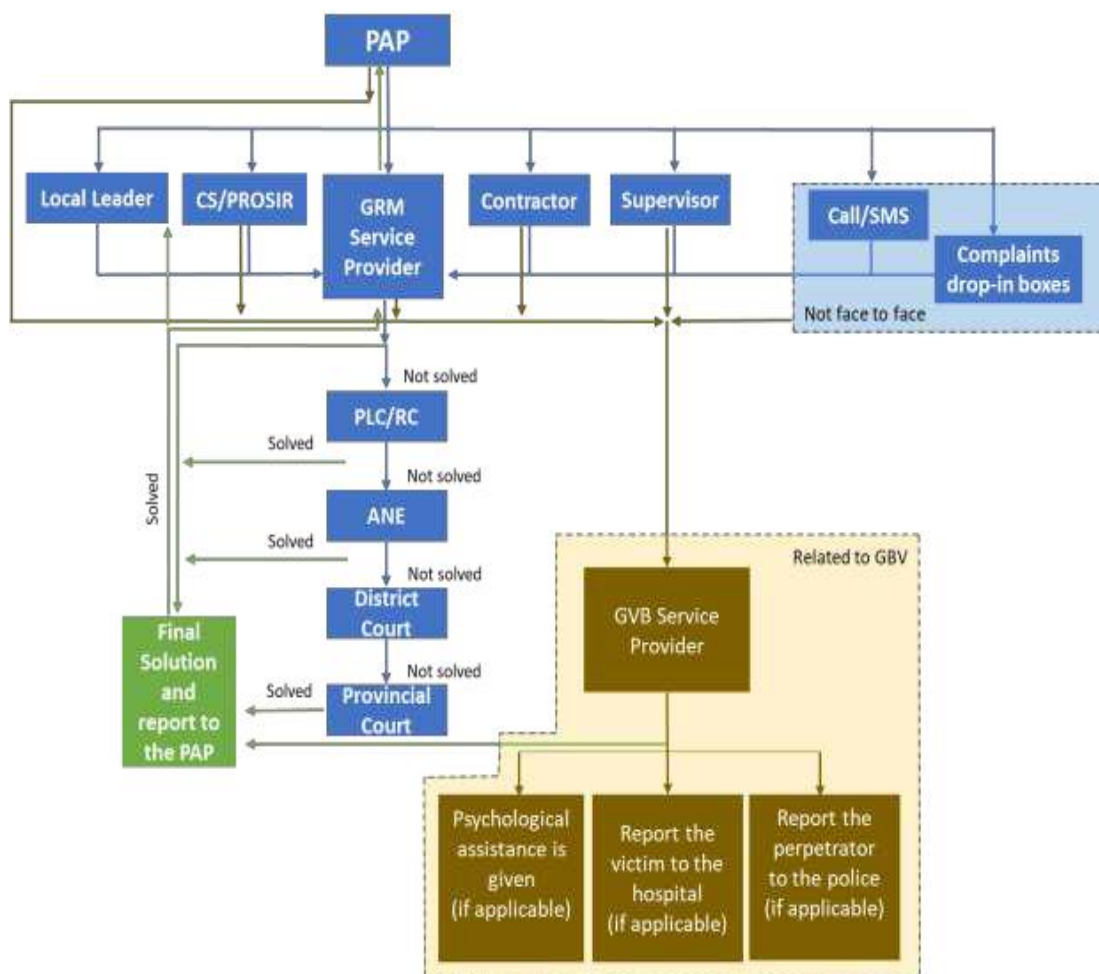
If affected communities' interests are superseded or rendered ineffective by any other government actions in agreements entered into by them, provisions exist in legislation to appeal with sectoral grievances to higher levels of government such as ANE HdQ and MOPHRH. Ultimately, though not usually practiced systematically by many people, all citizens have the right to address complaints to the Public Prosecutor, the institution responsible for ensuring the law is correctly applied, particularly in the elaboration of territorial management instruments and their implementation.

Grievance Register Forms will be provided at local level at publicized sites and via publicly recognized community representatives. Community representatives should be encouraged to explain this entitlement whenever needed and at no time should filing a grievance be discouraged by community representatives, local authorities or Project officers. Each grievance will be captured in the Grievance/Issues Register that must be maintained at ANE PIU and ANE delegate. Reports on grievances will be regularly presented at monthly PLC meeting. Grievance reports should track complaints, responses, redress action and close-out of all community grievances with dates and responsible parties clearly indicated. ANE HdQ and Delegation will periodically verify response management and redress through to close-out of each grievance. Each of the following steps should be limited to a maximum of 15 days from receiving a grievance to communicating a decision. Resolution should be sought at the lowest level possible in all cases. The GRM can be summarized in the following chart:

This final step is an option that must always be available, but it should be discouraged by all positive means possible. Timely communication and open negotiation are the main deterrents.

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GRM and GBV flow chart



Source: RPF for SATCP (2020)

Channels to be used by aggrieved communities

The main channels that can be followed by aggrieved community members who wish to register a complaint, grievance, dispute or other grievances are as follows;

- Direct verbal complaint to the construction Contractor or the PIU;
- Complaints book: which can be maintained by community committee secretaries at community level. This book is accessible to all community members in the area of subproject implementation. This will be a duplicate book in which community members can write down their complaints. The information to be contained in the complaint is presented in the form presented in Annex 4.
- Cell phone number: direct interaction mechanism for submitting a complaint. This channel can be used in the official (Portuguese) and local language;

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- E-mail: is an option for claimants with an email connection.
- Meetings with communities

These channels must first be discussed with community representatives and modified as necessary. They must be explained to community members at general community meetings. Subprojects must appoint a person responsible for community issues - Community Liaison Officer (CLO), who will check the community complaints book weekly and direct all other communication channels. He will contact community leaders more frequently and will be responsible for reporting grievances to PIU and liaising with the various levels of grievance resolution.

Community-level Grievance Redressal Committee (GRC) member requirements

Generally, the entire Project team, the management team of agencies involved in the Project, and the Reconstruction Forums at district and provincial levels undertake grievance handling as a responsibility. GRC members must be qualified, experienced and competent people, capable of earning the respect and trust of affected communities. It is also important to maintain a gender balance among GRC members. Criteria for selecting GRC members may include the following:

- Knowledge of the project, its objectives and results; technical knowledge and experience, e.g. irrigation, engineering, geological, legal, to understand the project design and requirements;
- Understanding social, economic and cultural environments and community dynamics;
- Ability to absorb the problems addressed and actively contribute to decision-making processes;
- Social recognition and position; and
- Equal gender representation.

The GRC at the local level should include the representative of the local administration or administrative post, members of the community court, community leader, member of a recognized non-governmental organization in the area, and a focal point for grievance resolution for the project. The GRC has the right to request the project's technical team and employees of public institutions involved in the project to participate in meetings and provide information necessary to resolve disputes. The ANE PIU will ensure that a centralized "Register of Complaints" is maintained. Complaint records must contain: i) the complainant's contact details and information about the complaint itself, ii) the results of investigations and responses provided, iii) necessary follow-up actions and v) internal communications made in response to complaints and the result

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Emergency Preparedness and Response Management Plan	
Scope of Management Plan	This Emergency Preparedness and Response Management Plan, applies to the construction and operations phase of the Project. All Contractors, subcontractors, and third-party service providers are required to adhere to this plan to ensure the consistent and proper execution of environmental and social (E&S) management and mitigation measures throughout the Project's duration.
Relevant Standards	• The Constitution of the Republic of Mozambique establishes that work constitutes the right and duty of each citizen (Article 84). • Labor Law (Law 23/2007, of 1 August) and associated diplomas, the Regulation on General Labor Inspection (Decree n° 45/2009, of 14 August) • Legal Regulation for Work Accidents and Occupational Illnesses. Decree 62/2013 of December 4 establishes the Legal Regulation for Work Accidents and Occupational Illnesses. • WB ESS2 • WB ESS4 • WBG EHS Guidelines (https://documents1.worldbank.org/curated/zh/157871484635724258/pdf/112110-WP-Final-General-EHS-Guidelines.pdf)
Roles and Responsibilities	• ANE, IP ◦ Ensure that the Contractor includes an Emergency Preparedness and Response Management Plan as part of the Contractor ESMP and implements it. • Contractor's Project Manager ◦ Responsible for the provision of adequate financial, labor and equipment resources for the full implementation of this Emergency Preparedness and Response Management Plan. ◦ Accountable for any significant deviations from this management plan resulting in non-compliance and any ensuing adverse Environmental and Social (E&S) impacts. ◦ Responsible for authorizing/approving any changes or modifications to this plan as necessary due to inspection outcomes or identified optimization opportunities. ◦ Responsible for quarterly review of all performance reports and KPIs in relation to biodiversity management and approving any changes based on the data collected. • Contractor Environmental Manager/Director ◦ Overseeing onsite implementation of this plan alongside the Contractor's OHS Specialist. ◦ Supervising the analysis of performance monitoring activities outcomes, and the resulting corrective action plan. • Contractor's OHS Specialist ◦ On-site Implementation and monitoring of this plan.

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Emergency Preparedness and Response Management Plan		
	• All Employees and Contractors ○ Implementation of all management procedures and measures as set out by this plan.	
Plan Requirements	Actions, Measures and Procedures	Responsibility
	The Contractor must prepare a detailed emergency response plan for the site. The plan will be kept up to date and be appropriate for the changing site conditions. The emergency contacts notice, emergency plan and fire action notices for this site will be displayed on the site office notice board and other pertinent locations on the site. A suitable number of emergency routes and exits shall be provided to enable any person to reach a place of safety quickly in the event of danger. A suitable Emergency Assembly Point must be identified and located with sufficient signs. A means of warning must be devised and communicated to all site personnel.	Contractor's Project Manager in conjunction with OHS Specialist
	Fire Response The threat of fire to employees, visitors, and property should be minimized. In this regard, all flammable and combustible materials will be stored away from any open flames or spark producing equipment/tools. All personnel shall take all precautions necessary to prevent fires caused by their operations. All fires, regardless of how minor or if burned out prior to discovery, shall be reported to site management. Fire Extinguishers shall be located and labeled so they can be readily seen and accessible along normal paths of travel. Fire extinguishers shall be inspected regularly by experts and an inspection tag displayed. Any defective device must be removed from service immediately. Any employee expected to, or required to use a portable fire extinguisher will receive annual training on the proper use and handling of the extinguishers.	Contractor's Project Manager in conjunction with OHS Specialist
	First Aid and Emergency Medical Care The Contractor must take all possible measures under the circumstances to ensure that in the event of an accident or emergency, workers receive immediate first aid. A well-stocked First Aid Box as required by the Health and Safety (First Aid) Regulations will be located within the Site Agent's 'on-site' office. First aiders for the site will be identified and trained and their names will be displayed on the site notice board. All injuries, however small, must be reported and treated sufficiently.	
	Environmental emergencies also have to be considered and how to manage large spills etc.	
	Extreme climate events must also be considered and how to manage them.	

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Emergency Preparedness and Response Management Plan			
Capacity Building and Trainings	- The primary management strategy for this Project should focus on emergency response management of the project staff. All on-site staff should be trained on: - Awareness and understanding of emergency response plan. - These trainings will be conducted through: - Induction training material for workers - Repeated/refresher Toolbox Talks		
Performance Monitoring and Audit and Inspections	Type	Frequency	Responsibility
	Site Inspection	Weekly	Contractor's OHS Specialist
	Number of emergency incidents the project area	Monthly	Contractor's OHS Specialist
	Number of OHS incidents in the project area	Monthly	Contractor's OHS Specialist
	Number of community H&S incidents in the project area	Monthly	Contractor's OHS Specialist
	Internal Audit	Monthly	Contractor's Social/OHS Specialist
	External Audit	Quarterly	Third Party Monitoring
	MAAP Audit	Unknown	Contractor's Project Manager and ANE to facilitate and cooperate with auditors
KPIs	The following KPIs should be regularly monitored and accurately recorded to provide sufficient data for possible optimization of management measures:		
	KPI	Target	Frequency of Recording Measurement
	Number of emergency incidents	0	Monthly
	Number of OHS complaints	0	Monthly
	Number of community H&S complaints	0	Monthly
	Number of trainings		Monthly
Reporting	Bi-weekly Site Inspection Reports Monitoring Consultant for Contractor corrective actions Monthly Reports by the Contractor's Environmental Specialist and approved by Contractor's Environmental Manager, submitted to Monitoring Consultant, for submission to ANE Monthly ESHS report submitted by ANE IP to WB Quarterly ESHS Performance Report by ANE IP to WB		
Review	This plan is a dynamic document and the implementation of this management plan should be reviewed and updated quarterly, informed by findings from internal/external audits, inspections, and KPI analysis. Any consistent non-compliance with the measures outlined or related incidents will trigger an immediate review. Additionally, an immediate review will be triggered in response to any changes in Project components, processes, or scope.		

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5 MONITORING AND REPORTING

Monitoring is to be undertaken by the Contractor, Monitoring Consultant, Employer and Third Party Monitoring teams or auditors as noted in section 4. Daily/weekly monitoring is required by the ES Safeguards team of the Contractor and Monitoring Consultant of all activities taking place. Water quality monitoring is suggested on a monthly basis, campsite effluent monitoring is suggested on a quarterly basis. Air quality, noise and vibration monitoring should take place weekly by the Contractor depending on activities being undertaken. The Employer's ES Safeguards team should also be monitoring activities on a weekly basis. Third Party monitoring is suggested quarterly.

The iRap and traffic studies should be undertaken during the detailed design period, prior to the commencement of the construction/rehabilitation and a road safety assessment undertaken at mid-term and closure of the construction period, in order to provide an adequate baseline and evaluation for regular monitoring of third party traffic accidents for road traffic safety purposes and to ensure the designs have adequate road safety measures.

The Contractor Environmental & Social (E&S) Safeguards Team will be responsible for submitting Monthly and Quarterly reports on compliance with the ESMP requirements (refer to Annex 13). These reports will be submitted within one week following the end of the reporting period to the Client (ANE, IP).

In the event of an accident or incident, ANE, IP must be notified within 48 hours. Subsequently, the ANE, IP must notify the World Bank within 48 hours, and under no circumstances later than 72 hours after becoming aware of such an incident or accident. These reports should include specific details of the incident or accident, the immediate measures that have been taken in response to the incident or accident. Following the initial incident report, an investigation should take place involving the Contractor/Site Engineer and interested stakeholders to undertake the Root Cause Analysis (RCA), and Safeguards Corrective Action Plan (SCAP) should be developed. Implementation of the corrective measures should be included in the close out report for the incident.

In the event of an SEA/SH incident the PIU must notify the WB within 24 hours of receipt.

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As noted previously, detailed monitoring and reporting activities have been outlined within the specific management plans outlined in Chapter 4 of this ESMP. Monitoring initiatives encompass regular site inspections, rigorous internal evaluations, and external audits. These measures aim to maintain a consistent overview of operational standards and their environmental and social risks and impacts. Reporting involves meticulous records of performance metrics and Key Performance Indicators (KPIs) as well as development of quarterly performance reports.

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6 SUGGESTED CONTRACT CLAUSES FOR PENALTIES AND SANCTIONS FOR NON-COMPLIANCE WITH THE ESMP

The contractor is bound by a contract to implement this specification and the ESMP and any non-compliance may be liable to a penalty.

The Design Consultants have proposed a USD 250/day penalty for non-conformances, although it is not clear how this will be implemented in practice as this was not included in the concept design reports.

7 AUDIT AND INSPECTION

Annual audits by a third party agent to provide an independent review of compliance and adherence to Project operations manual and the environmental and social commitment plan. This will be the responsibility of the PIU.

The ESMP will be subject to a legal and compliance environmental and social (E&S) audit. The E&S audit must verify that the recommendations of this ESMP, including measures to mitigate environmental and social impacts, are taken into account so as not to compromise project results and communicated at all levels. The audit must be carried out in a manner consistent with the WB Safeguards Policies, the World Bank Group General Environment, Health and Safety (ESH) Guidelines, as well as applicable national regulations.

Environmental Audit

Environmental Audit and Environmental Inspection are regulated, respectively, by Decree n.º 25/2011, of 15th of June and Decree n.º 11/2006, of 15th of July. According to the Regulation on the Environmental Audit Process, any public or private activity, which during its implementation, decommissioning and restoration phase, may have an impact on the environmental components, may be subject to public (carried out by the MAAP) or private environmental audits (undertaken by auditors registered by the MAAP).

This Regulation, in Article 12, includes the duty of collaboration on the part of the audit target entities, in particular in providing documentation and other requested information, as well as providing free access to the facilities and locations to be audited. A private audit per year is mandatory. The Audit Report must be submitted to the Environmental Quality Control Agency (ACQUA), including an action plan to correct identified nonconformities. Audits must be performed by MAAP Certified Auditors.

Environmental Inspection

The Regulation on Environmental Inspection defines the legal mechanisms for inspection of public and private activities, which directly or indirectly are likely to cause negative impacts on the environment. This Decree regulates the activity of supervision, control and inspection of compliance with environmental protection standards at national level. This regulation distinguishes two types of environmental inspection, namely:

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- a) Ordinary Inspection - when carried out within the scope of the implementation of the MAAP activity plan; and
- b) Extraordinary - when carried out to achieve certain objectives related to any public or private activity that may compromise the balance in the environment.

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8 Capacity development and training

This section includes the description of the capacity building and training programs and technical assistance required to implement an Environmental and Social Management System within RF/ANE PIU and MTC PIU have been carried out in close collaboration with RF/ANE, MTC INATRO, Traffic Police, MoH and Ministry of Interior the Contractor(s) and other institutions that will be responsible for monitoring the effectiveness of the implementation of the ESMP outlined in the ESIA Report.

It has been established that the country has achieved considerable progress in institutional, legal, and regulatory processes related to environmental and social management issues. However, coordination and law enforcement remain a serious challenge. The successful implementation of this project will depend on the capacity building and training programs to be vested in selected technical staff who will be responsible for implementation of the ESMP and those to be responsible for monitoring the effectiveness of the implementation of mitigation/enhancement measures proposed in the ESMP. For this project, the technical staff to be offered the capacity building and training programs will come from the national and provincial level, including the workers from the contractor(s) and monitoring consultant.

As the provincial level of these institutions does not have the required environmental and social capacity to carry out the implementation, monitoring, and evaluation process for the E&S instruments at subproject level, the Project will contract additional staff for SRSEI Project implementation, as follows, to ensure effective project coordination, management, implementation and monitoring of ESMP and other E&S instruments to achieve the project goals:

At RF/ANE PIU level

- One (1) Environmental Specialist;
- One (1) Social/Resettlement; Specialist
- One (1) GBV/SEA/SH Expert;
- One (1) Senior Highway Engineer with experience in climate resilient infrastructure;
- One (1) Road Safety Expert; and
- One (1) Drainage/Bridges Engineer.

At Province level

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- (One) 1 Environmental Specialist.
- (One) 1 Social/Resettlement Specialist each per province.
- (One) 1 GBV/SEA/SH Expert each per province.
- (One) 1 Road Safety Officer each per province, and
- (One) 1 Occupational Health and Safety (OHS) Officer with more experience in ISO45001:2018 or OHSAS 18001:2007 certification.

At MTC PIU level

- One (1) Road Safety Specialist with emphasis on Policy Development (Safety Policy).
- Two (2) Safety Data Base Specialist (Development of a Centralized Database for the collection of road safety statistics).
- One (1) Road Safety Training Specialist (Capacity development of enforcement officials).
- One (1) Road Safety Training Specialist (Technical inspection of vehicles and Driver Training).
- One (1) Road Safety Training Specialist (development of Road Safety training at school and Community level).
- One (1) Communication Specialists (production and management of road safety campaigns), and
- One (1) Road Safety Infrastructure Development Expert (Parking Areas, Training Depot, Vehicle Inspection Depot).

8.1.1 Proposed E&S Capacity Building and Training program

PIU safeguards specialists will require an induction training on World Bank and GoM environmental and social safeguards policies, applicable to the ESIA and on the use of the screening and other pertinent checklists. The Training program shall include engineer/technical staff of the PIU team at ANE HdQ and Delegation as well as the PIU at MTC, Contractors, Monitoring Consultant, E&S Specialist, OHS Specialist and ESMP Monitoring team from various institutions to be involved. The training will enable these personnel to understand their roles and what is expected from them during the implementation of the project activities, including reporting mechanisms, and to raise awareness for the issues related with environmental and social management process of the ESIA.

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The successful implementation of the environmental and social safeguards depends on the capacity of the implementing stakeholders. The following training requirements have been proposed, and a training plan has been developed to facilitate capacity building of sub-project stakeholders. This will assist key and relevant stakeholders in this sub-project to acquire specialized knowledge and skills so that they can effectively execute their roles to do no harm to people and the environment in the project area. The proposed training plan will focus on:

- Objectives, need and use of the ESMP.
- Legal requirements of the ESMP (National legislation and World Bank Environmental and Social Standards and Guidelines).
- Management of overall environmental and social risks and impacts as well as mitigation strategies as per the ESMP during design, rehabilitation/construction stage, operation and maintenance and de-commissioning phases.
- Management of specific aspects of ESMP implementation related to:
 - Air Quality Monitoring Plan
 - Noise and Vibration Monitoring Plan
 - Soil and Erosion Monitoring Plan
 - Water and Effluent Quality Monitoring Plan
 - Waste Management Plan
 - Biodiversity Management Plan
 - Archeology and Cultural Heritage Management Plan
 - SEA/SH Prevention and Response Action Plan
 - Labor Influx and Working Conditions Management Plan
 - Community Health and Safety Management Plan
 - Occupational Health and Safety Management Plan
 - Traffic Management Plan
 - General Guideline for Use of Security Personnel in the Project Protection Security Management Plan
 - Resettlement Plan
 - Grievance Redress Mechanism
 - Emergency Preparedness and Response Management Plan.
- Monitoring mechanism, documentation and reporting procedures.

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The table below summarizes the proposed training plan and estimated cost to implement this capacity building exercise for the relevant stakeholders who will be responsible for the implementation, management and monitoring of the sub-project activities.

Table 8-1 Capacity building and Training Plan and estimated cost

No.	Description of training	Training module	Location	Frequency	Participation
1	Two-day training workshops	- Objectives, need and use of ESMP. - Legal requirements for the ESIA (National legislations and World Bank Environmental and Social Standards and Guidelines/Guidance Notes). - Management of Environmental and Social risks and impacts and mitigation/enhancement strategies as per ESMP. - Monitoring mechanism, documentation and reporting procedures. - Stakeholder engagement, consultation and partnerships. - Identification of impacts and mitigation/enhancement measures and development of site-	PIU Head Office	Launch workshop at the start of the project	Sub-Project staff (PIU), Environmental and Social Safeguards Specialists, Contractors, Monitoring Consultant, officers from local authorities relevant for the Sub-project

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		specific environmental and social mitigation plans.			
2	Two days training workshop	Specific aspects of ESMP implementation related to: • Code of Conduct • Air Quality Monitoring Plan • Noise and Vibration Monitoring Plan • Soil and Erosion Monitoring Plan • Water and Effluent Quality Monitoring Plan • Waste Management Plan • Biodiversity Management Plan • Archeology and Cultural Heritage Management Plan • SEA/SH Prevention and Response Action Plan • Labor Influx and Working Conditions Management Plan • Community Health and Safety Management Plan • Occupational Health and Safety Management Plan • Traffic Management Plan • General Guideline for Use of Security	PIU Head office	Quarterly	Sub-Project staff (PIU), Environmental and Social Safeguards Specialists, Contractors, Monitoring Consultant, officers from local authorities relevant for the Sub-project relevant for the Sub-project

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		Personnel in the Project Protection Security Management Plan • Resettlement Plan • Grievance Redress Mechanism • Emergency Preparedness and Response Plan			
Estimated cost					USD 50,000.00

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9 Cost of mitigation/enhancement measures in the ESMP

Using best practices in other parts of the world, the estimated costs of the mitigation measures to implement the prepared ESMP is US\$300,500.00. It is estimated that the total cost for the implementation of the planned monitoring activities during the rehabilitation/construction and operations/maintenance phases is US\$142,500.00 and the institutional and training capacity building requirements US\$50,000.00.

A comprehensive work program, budget estimates, schedules, staffing and training requirements, and other necessary support services to implement the mitigating measures may be prepared based on this budget guideline.

It should be noted that estimating costs of implementing and monitoring of the ESMP over an estimated 2 years for construction and further 8 years of operations and maintenance can only be an estimate without detailed designs and methodologies of working proposed by Contractors. An alternative consideration would be an estimated 2% of total costs of design and rehabilitation works to cover the implementation of the ESMP.

10 CONCLUSION AND RECOMMENDATIONS

10.1 Conclusion

This environmental and social assessment study for the rehabilitation of the road section of N1 corridor and the /construction of associated structures has been prepared in accordance with EIA guidelines for Mozambique and the World Bank ESF. The assessment determined both positive and negative impacts that would be generated due to the implementation of the sub-project activities as described in Tables 4-1 and 4-2. To enhance the positive and mitigate the negative potential risks and impacts, an ESMP has been developed to add value to the positive impacts and to effectively manage the potential negative risks and impacts associated with this sub-project. The monitoring plan for the ESMP has also been developed to ensure that implementation of the mitigation and enhancement measures is independently tracked to ensure adherence to the implementation of the ESMP will ensure environmental and social sustainability of the project.

10.2 Recommendations

The recommendations below have been developed based on the mitigation and enhancement measures for the potential negative and positive impacts as well as the risks of the proposed project and to ensure sustainable implementation of the project along the road section:

- a) The mitigation measures recommended in this ESMP report should be fully implemented to avoid or minimize the potential negative risks and impacts at the lowest level, which will be insignificant and accepted by all stakeholders;
- b) The Contractor and the ANE PIU should ensure that all environmental and social impacts that require engineering solutions, particularly aspects related to wildlife movements and traffic safety requirements, are incorporated in the detailed final designs and specifications for the road rehabilitation works;
- c) Appropriate conditions and clauses should be included in the bidding documents to ensure the project Contractors follow and adhere to them during the implementation of the project;
- d) The Contractor and ANE PIU should ensure full participation and involvement of local leaders and wildlife conservation institutions found in the project area in management of natural resources and conducting awareness campaigns about HIV and AIDS aimed at promoting behavioral change among the general public;

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- e) ANE PIU, the Third Party Monitoring Agency and its site Monitoring Consultant should adequately supervise the implementation of the ESMP and monitoring program throughout the rehabilitation and decommissioning phases of the project to ensure mitigation measures are strictly implemented;
- f) ANE, IP should enhance the capacity of PIU staff, Contractor and other relevant stakeholders in national legislation and World Bank ESF requirements, OHS and Community Health and Safety, Emergency Preparedness and Response, handling of GBV/SEA/SH/VAC and functions of a Grievance Redress Committee (GRC); and
- g) The Contractor should strictly adhere to Contractor's Environmental and Social Management Plan (C-ESMP), Code of Conduct and other relevant E&S management plans described in detail in this ESMP prior to the commencement of the rehabilitation and construction works.

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11 ANNEXES

Environmental and Social Management Plan

11.1 Annex 1: Manager's Code of Conduct

Implementing ESHS and OHS Standards

Preventing Gender Based Violence and Violence Against Children

Managers at all levels have a responsibility to uphold the company's commitment to implementing the ESHS and OHS standards, and preventing and addressing GBV and VAC. This means that managers have an acute responsibility to create and maintain an environment that respects these standards and prevents GBV and VAC. Managers need to support and promote the implementation of the Company Code of Conduct. To that end, managers must adhere to this Manager's Code of Conduct and also sign the Individual Code of Conduct. This commits them to supporting the implementation of the CESMP and the OHS Management Plan and developing systems that facilitate the implementation of the GBV and VAC Action Plan. They need to maintain a safe workplace, as well as a GBV-free and VAC-free environment at the workplace and in the local community. These responsibilities include but are not limited to:

Implementation

1. To ensure maximum effectiveness of the Company and Individual Codes of Conduct:
 - i. Prominently displaying the Company and Individual Codes of Conduct in clear view at workers' camps, offices, and in public areas of the workspace. Examples of areas include waiting, rest and lobby areas of sites, canteen areas and health clinics.
 - ii. Ensuring all posted and distributed copies of the Company and Individual Codes of Conduct are translated into the appropriate language of use in the work site areas as well as for any international staff in their native language.
2. Verbally and in writing explain the Company and Individual Codes of Conduct to all staff.
3. Ensure that:
 - i. All direct workers sign the 'Individual Code of Conduct', including acknowledgment that they have read and agree with the Code of Conduct.
 - ii. Staff lists and signed copies of the Individual Code of Conduct are provided to the OHS Manager, the GCCT, and the Client.
 - iii. Participate in training and ensure that staff also participate as outlined below.
 - iv. Put in place a mechanism for staff to:
 - report concerns on ESHS or OHS compliance; and,

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- confidentially report GBV or VAC incidents through the Grievance Redress Mechanism (GRM)
- v. Staff are encouraged to report suspected or actual ESHS, OHS, GBV or VAC issues, emphasizing the staff's responsibility to the Company and the country hosting their employment, and emphasizing the respect for confidentiality.
- 4. In compliance with applicable laws and to the best of your abilities, prevent perpetrators of sexual exploitation and abuse from being hired, re-hired or deployed. Use background and criminal reference checks for all employees.
- 5. Ensure that when engaging in partnership, sub-Contractor, supplier or similar agreements, these agreements:
 - i. Incorporate the ESHS, OHS, GBV and VAC Codes of Conduct as an attachment.
 - ii. Include the appropriate language requiring such contracting entities and individuals, and their employees and volunteers, to comply with the Individual Codes of Conduct.
 - iii. Expressly state that the failure of those entities or individuals, as appropriate, to ensure compliance with the ESHS and OHS standards, take preventive measures against GBV and VAC, to investigate allegations thereof, or to take corrective actions when GBV or VAC has occurred, shall not only constitute grounds for sanctions and penalties in accordance with the Individual Codes of Conduct but also termination of agreements to work on or supply the project.
- 6. Provide support and resources to the GCCT to create and disseminate internal sensitization initiatives through the awareness-raising strategy under the GBV and VAC Action Plan.
- 7. Ensure that any GBV or VAC issue warranting Police action is reported to the Police, the Client and the World Bank immediately.
- 8. Report and act according to the response protocol (Section 4.7 Response Protocol) any suspected or actual acts of GBV and / or VAC as managers have a responsibility to uphold company commitments and hold their direct reports responsible.
- 9. Ensure that any major ESHS or OHS incidents are reported to the client and the supervision engineer immediately.

Training

- 10. The managers are responsible to:
 - i. Ensure that the OHS Management Plan is implemented, with suitable training required for all staff, including sub-Contractors and suppliers; and,
-

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- ii. Ensure that staff have a suitable understanding of the CESMP and are trained as appropriate to implement the CESMP requirements.
- 11. All managers are required to attend an induction manager training course prior to commencing work on site to ensure that they are familiar with their roles and responsibilities in upholding the GBV and VAC elements of these Codes of Conduct. This training will be separate from the induction training course required of all employees and will provide managers with the necessary understanding and technical support needed to begin to develop the GBV and VAC Action Plan for addressing GBV and VAC issues.
- 12. Managers are required to attend and assist with the project facilitated monthly training courses for all employees. Managers will be required to introduce the trainings and announce the self-evaluations, including collecting satisfaction surveys to evaluate training experiences and provide advice on improving the effectiveness of training.
- 13. Ensure that time is provided during work hours and that staff prior to commencing work on site attend the mandatory project facilitated induction training on:
 - i. OHS and ESHS; and,
 - ii. GBV and VAC required of all employees.
- 14. During civil works, ensure that staff attend ongoing OHS and ESHS training, as well as the monthly mandatory refresher training course required of all employees to combat increased risk of GBV and VAC.

Response

- 15. Managers will be required to take appropriate actions to address any ESHS or OHS incidents.
 - 16. With regard to GBV and VAC:
 - i. Provide input to the GBV and VAC Allegation Procedures (Section 4.2 Action Plan) and Response Protocol (Section 4.7 Action Plan) developed by the GCCT as part of the final cleared GBV and VAC Action Plan.
 - ii. Once adopted by the Company, managers will uphold the Accountability Measures (Section 4.4 Action Plan) set forth in the GBV and VAC Action Plan to maintain the confidentiality of all employees who report or (allegedly) perpetrate incidences of GBV and VAC (unless a breach of confidentiality is required to protect persons or property from serious harm or where required by law).
-

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- iii. If a manager develops concerns or suspicions regarding any form of GBV or VAC by one of his/her direct reports, or by an employee working for another Contractor on the same work site, s/he is required to report the case using the GRM.
 - iv. Once a sanction has been determined, the relevant manager(s) is/are expected to be personally responsible for ensuring that the measure is effectively enforced, within a maximum timeframe of 14 days from the date on which the decision to sanction was made
 - v. If a Manager has a conflict of interest due to personal or familial relationships with the survivor and/or perpetrator, he/she must notify the respective company and the GCCT. The Company will be required to appoint another manager without a conflict of interest to respond to complaints.
 - vi. Ensure that any GBV or VAC issue warranting Police action is reported to the Police, the client and the World Bank immediately
17. Managers failing address ESHS or OHS incidents, or failing to report or comply with the GBV and VAC provisions may be subject to disciplinary measures, to be determined and enacted by the company's CEO, Managing Director or equivalent highest-ranking manager. Those measures may include:
- i. Informal warning.
 - ii. Formal warning.
 - iii. Additional Training.
 - iv. Loss of up to one week's salary.
 - v. Suspension of employment (without payment of salary), for a minimum period of 1 month up to a maximum of 6 months.
 - vi. Termination of employment.
18. Ultimately, failure to effectively respond to ESHS, OHS, GBV and VAC cases on the work site by the company's managers or CEO may provide grounds for legal actions by authorities.

I do hereby acknowledge that I have read the foregoing Manager's Code of Conduct, do agree to comply with the standards contained therein and understand my roles and responsibilities to prevent and respond to ESHS, OHS, GBV and VAC requirements. I understand that any action inconsistent with this Manager's Code of Conduct or failure to take action mandated by this Manager's Code of Conduct may result in disciplinary action.

Signature: _____

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Printed Name: _____

Title: _____

Date: _____

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11.2 Annex 2: Workers Code of Conduct

Implementing ESHS and OHS Standards

Preventing Gender Based Violence and Violence Against Children

I, _____, acknowledge that adhering to environmental, social health and safety (ESHS) standards, following the project's occupational health and safety (OHS) requirements, and preventing gender-based violence (GBV) and violence against children (VAC) is important.

The company considers that failure to follow ESHS and OHS standards, or to partake in GBV or VAC activities - be it on the work site, the work site surroundings, at workers' camps, or the surrounding communities - constitute acts of gross misconduct and are therefore grounds for sanctions, penalties or potential termination of employment. Prosecution by the Police of those who commit GBV or VAC may be pursued if appropriate.

I agree that while working on the project I will:

1. Attend and actively partake in training courses related to ESHS, OHS, HIV/AIDS, GBV and VAC as requested by my employer.
2. Will wear my personal protective equipment (PPE) at all times when at the work site or engaged in project related activities.
3. Take all practical steps to implement the Contractor's environmental and social management plan (CESMP).
4. Implement the OHS Management Plan.
5. Adhere to a zero-alcohol policy during work activities, and refrain from the use of narcotics or other substances which can impair faculties at all times.
6. Consent to Police background check.
7. Treat women, children (persons under the age of 18), and men with respect regardless of race, color, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status.
8. Not use language or behavior towards women, children or men that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate.

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9. Not engage in any acts of sexual exploitation, which is defined as any actual or attempted abuse of a 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.
10. Not engage in any acts of sexual abuse, which is defined as the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions.
11. Not engage in any acts of sexual harassment, which is defined as any unwelcome sexual advance, request for sexual favor, verbal or physical conduct or gesture of a sexual nature, or any other behavior of a sexual nature that might reasonably be expected or be perceived to cause offense or humiliation to another, when such conduct interferes with work, is made a condition of employment or creates an intimidating, hostile or offensive work environment—for instance, making unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct, of a sexual nature, including subtle acts of such behavior (e.g. looking somebody up and down; kissing, howling or smacking sounds; hanging around somebody; whistling and catcalls; giving personal gifts; making comments about somebody's sex life; etc.).
12. Not engage in sexual favors—for instance, making promises or favorable treatment dependent on sexual acts—or other forms of humiliating, degrading or exploitative behavior.
13. Not participate in sexual contact or activity with children—including grooming or contact through digital media. Mistaken belief regarding the age of a child is not a defense. Consent from the child is also not a defense or excuse.
14. Unless there is the full consent⁵ by all parties involved, I will not have sexual interactions with members of the surrounding communities. This includes relationships involving the withholding or promise of actual provision of benefit (monetary or non-monetary) to community members in exchange for sex—such sexual activity is considered “non-consensual” within the scope of this Code.

⁵ **Consent** is defined as the informed choice underlying an individual's free and voluntary intention, acceptance or agreement to do something. No consent can be found when such acceptance or agreement is obtained through the use of threats, force or other forms of coercion, abduction, fraud, deception, or misrepresentation. In accordance with the United Nations Convention on the Rights of the Child, the World Bank considers that consent cannot be given by children under the age of 18, even in the event that national legislation of the country into which the Code of Conduct is introduced has a lower age. Mistaken belief regarding the age of the child and consent from the child is not a defence.

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15. Consider reporting through the GRM or to my manager any suspected or actual GBV or VAC by a fellow worker, whether employed by my company or not, or any breaches of this Code of Conduct.

With regard to children under the age of 18:

- 16.
17. Wherever possible, ensure that another adult is present when working in the proximity of children.
18. Not invite unaccompanied children unrelated to my family into my home, unless they are at immediate risk of injury or in physical danger.
19. Not use any computers, mobile phones, video and digital cameras or any other medium to exploit or harass children or to access child pornography (see also “Use of children's images for work related purposes” below).
20. Refrain from physical punishment or discipline of children.
21. Refrain from hiring children for domestic or other labor below the minimum age of 14 unless national law specifies a higher age, or which places them at significant risk of injury.
22. Comply with all relevant local legislation, including labor laws in relation to child labor and World Bank’s safeguard policies on child labor and minimum age.
23. Take appropriate caution when photographing or filming children (See Annex 2 for details).

Use of children's images for work related purposes

When photographing or filming a child for work related purposes, I must:

24. Before photographing or filming a child, assess and endeavor to comply with local traditions or restrictions for reproducing personal images.
25. Before photographing or filming a child, obtain informed consent from the child and a parent or guardian of the child. As part of this I must explain how the photograph or film will be used.
26. Ensure photographs, films, videos and DVDs present children in a dignified and respectful manner and not in a vulnerable or submissive manner. Children should be adequately clothed and not in poses that could be seen as sexually suggestive.
27. Ensure images are honest representations of the context and the facts.
28. Ensure file labels do not reveal identifying information about a child when sending images electronically.

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Sanctions

I understand that if I breach this Individual Code of Conduct, my employer will take disciplinary action which could include:

1. Informal warning.
2. Formal warning.
3. Additional Training.
4. Loss of up to one week's salary.
5. Suspension of employment (without payment of salary), for a minimum period of 1 month up to a maximum of 6 months.
6. Termination of employment.
7. Report to the Police if warranted.

I understand that it is my responsibility to ensure that the environmental, social, health and safety standards are met. That I will adhere to the occupational health and safety management plan. That I will avoid actions or behaviours that could be construed as GBV or VAC. Any such actions will be a breach this Individual Code of Conduct. I do hereby acknowledge that I have read the foregoing Individual Code of Conduct, do agree to comply with the standards contained therein and understand my roles and responsibilities to prevent and respond to ESHS, OHS, GBV and VAC issues. I understand that any action inconsistent with this Individual Code of Conduct or failure to take action mandated by this Individual Code of Conduct may result in disciplinary action and may affect my ongoing employment.

Signature: _____

Printed Name: _____

Title: _____

Date: _____

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11.3 Annex 3: Traffic Management Plan (TMP) Guidelines (Good Practice Note (GPN) on Road Safety (October 2019)

Traffic Management Plan (TMP) Guidelines

Contractors should produce Traffic Management Plans following the Good Practice Note (GPN) on Road Safety (October 2019).

Traffic Management Plan (TMP): Part of the OHS Management Plan, the TMP describes how the Contractor will manage traffic during construction to address the safety of workers and the local communities. It should be noted that the TMP will apply both to ESS4 (road safety) and ESS2 as the latter specifically deals with labor and working conditions.

TTM: Temporary Traffic Management

Road Safety During Construction

- Monitoring of the adherence of Contractor vehicles to the Contractor's TMP is essential. These plans need to clearly define as a minimum: (i) the approved haul routes for all construction traffic; (ii) maximum speed limits (which are often lower than the legal speed limit) at locations on the route (e.g. 40 km/h or 30 km/h when vulnerable users are present, such as during school hours starting 200m before to 200m after a school), and the hours at which vehicles operate and; (iii) Temporary Traffic Management (TTM) in work zones. The SE is to monitor and report on the Contractor's adherence to the TMP. Due to their low cost, GPS trackers (see Annex 5) are an effective way of ensuring that project vehicles are operating on: (i) approved routes; (ii) at approved times; and, (iii) at appropriate speeds. Potentially, deducts could be used to penalize Contractors for non-compliance. GPS trackers are recommended for all projects, particularly Substantial/High-risk projects.
- The Contractor's TMP and/or OHSP, which is approved by the Borrower, will need to provide the Contractor's measures for the safe use of equipment.
- The C-ESMP must contain a detailed site specific TTM plan to guide the traffic management processes during construction as part of the TMP
- Contractor to prepare a traffic management plan in accordance with ESMP requirements which clearly shows how traffic (including speeds) will be managed during construction and implement project in accordance with plan (see Annex 5).
- The TMP should clearly define: (i) allowable routes; (ii) vehicle speed limits; and, (iii) TTM in work zones.
- The TMP will be reviewed and cleared by the SE prior to Contractor mobilization being completed to confirm that it: (i) complies with best practice; (ii) any standards in place in the

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country; (iii) the project ESMP; and, (iv) any specific conditions of contract. Task Team should undertake a technical review of the TMP and TTM.

- TMP and/or TTM should be updated as necessary based on monitoring by the SE — particularly to reflect the findings of investigations of incidents (including near misses).

Road Safety During Construction

Effective Traffic Management Plans. The objectives of the TMP are to clearly define how the Contractor will:

- Provide a safe environment for all persons working on, and traffic travelling along, roads through the work zone by adopting appropriate TTM measures ⁶
- Minimize the impact of the works on traffic and adjacent communities;
- Minimize delays and access to public transport operations;
- Cater for the needs of all road users (including pedestrians, persons with disabilities, cyclists, motor-cyclists, heavy vehicles etc.); and,
- Communicate the arrangements for, and impacts of, any activities affecting traffic and road safety.

TMPs must identify reasonably foreseeable hazards that could give rise to health and safety and adopt measures to ideally eliminate the risk, or minimize them as far as reasonably practicable through appropriate control measures. This is best achieved by physically separating works from road users. It is important that the TTM adopted avoids, or at least minimizes, inconvenience or delays to road users whilst providing safe conditions for road users and workers. Table A5.1 is an example of how risks are identified and addressed in a TMP.

TMPs should be risk based and reflect the traffic flows to be encountered.

Extra care needs to be taken when there are increased levels of hazards, for example:

- Activities at or near intersections or areas with many turning and maneuvering movements;
- Where there are many vulnerable users (i.e. pedestrians, cyclists and motorcyclists);
- On or off ramps to motorways;
- Roads with hills and corners;
- At locations where Contractors vehicles enter or exit the construction zone from or to the main road network;

⁶ TTM standards existing in many countries. When they do not, examples of good practices are: https://www.works.gov.pg/files/roadsbridges/IF003_PNGFieldGuide.pdf and <https://www.adb.org/publications/carec-road-safety-engineering-manual-safer-road-works>.

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- Where normal traffic conditions change as a result of the temporary roadworks (eg, constrained carriageway or lane width; where traffic converges from multiple lanes into a lesser number of lanes; or on carriageways where there is un-separated contra-flow); and,
- Adjacent to railway crossings.

The TMP should provide for:

- the safety of the workers at the worksite and the public passing through or adjacent to the worksite;
- overall strategy for the management of traffic, including traffic staging methodology during
 - various stages of the work;
 - TTM arrangement for each stage of the works;
 - arrangement and number of traffic controllers required for each stage of the works;
 - emergency access – for both workers and any emergency services vehicles travelling through the worksite any unusual hazards or job specific requirements e.g. nearby school or access to shops;
 - use of alternative routes or detours as required;
 - provision for over-dimensional vehicles;
 - the use of GPS trackers for monitoring and reporting (see Box A5.1);
 - provision of safe passage for pedestrians, cyclists and people with disabilities;
 - provision for, and impact on, public transport (e.g. delay to buses/trams, restrictions on passenger access to bus or tram stops, potential for traffic to queue across an adjacent railway crossing), including where possible, priority for public transport;
 - provision for access to abutting properties;
 - duration and times for conducting the works (e.g. day or night operation);
 - traffic management arrangements at the worksite outside normal working hours or when workers are not present at the site (after-care);
 - arrangements to address and monitor the risk of end-of-queue collisions due to a build-up of traffic at worksites;
 - emergency response procedures and contact details;
 - the actions to be taken to address crashes – including the requirement for root-cause analyses as a means to understand if further traffic management needs to be put in place to mitigate the risks and to help prevent that situation re-occurring; and,
 - communication arrangements.

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The TMP should be prepared by a person who is suitably experienced and competent in traffic management, having regard to the nature and complexity of the works, and the type of TMP required. Consultation with workers who have experience in working on trafficked worksites can be beneficial in ensuring that a practical TMP is prepared.

The TMP should contain details on what records will be kept by the Contractor, to verify that the provisions of the TMP are being adhered to. Such records should include details on the types of inspections and audits that will be conducted, and the frequency of those inspections and audits. Inspections and audits should also be conducted at night-time. Records should be kept updated by the Contractor and provided to the Supervising Engineer (SE) at least on a weekly basis. The SE should conduct its own audits to satisfy itself that the provision of the TMP are being adhered to, and report on any non-compliance trends in their monthly/bi-monthly reports to the IA. Where non-conformances are occurring, then corrective actions should be put in place immediately, to avoid unsafe situations developing.

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11.4 Annex 4: Grievance Report Form (General, for non-SEA/SH incidents)

A unique code should be assigned to each complainant at the first time they report a concern and the same code should be used for all future concerns reported by the same person.

1. INCIDENT INFORMATION		
1.1 Received By:	1.2 Date received:	1.3 Reported by:
1.4 Grievance category ⁷ :		
1.5 Project Related ? ⁸ Yes: ☐ No: ☐	1.6 Date of the report to Contractor:	1.7 Date of the report to ANE:
1.8 Case ID:	1.9 Location	1.10 District:
1.11 Contract Number:	1.12 Name of the Contractor:	
3.6 Risk of retaliation: Yes: ☐ No: ☐		
3.7 Description of concern:		
2. RESOLUTION FEEDBACK		
2.1 Complainant satisfied with process? Yes: ☐ NO: ☐	Why not?	
2.2 Complainant satisfied with outcome? Yes: ☐ NO: ☐	Why not	
2.3 Other relevant information:		
3. ACTION TAKEN TO RESOLVE THE COMPLAINT		
Reported to	Date Reported	Action Taken
Print name (complainant):		
Signed (complainant)		Date:
Signed (Grievance Focal Point)		Date:
Copied to:		

Sample Grievance Form Name (Complaint): _____ PAPs ID

Number: _____ Contact Information:

⁷ Compensation/Land access/Inadequate Notification/Disruption to business or property/ Property damage/Environmental damage/Safety Risk/Traffic/Boundary Dispute/Other

⁸ If the grievance is not related to the project do not continue

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_____ (Community; mobile phone) Nature of Grievance or
Complaint:

—

— _____ Date Individuals Contacted Summary of Discussion _____

_____ Signature PAPs:

_____ Date: _____ RAP Consultant representative:

_____ Date: _____ Local Authorities:

_____ Date: _____

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11.5 Annex 5: Sample Resolution Form

Sample Resolution Form Name of Person: _____ Position: _____

_____ Review/Resolution Date of Meeting on Grievance: _____

_____ People Present at Meeting (see attachment): Was

field verification of complaint conducted? Yes____No____ Findings of field investigation:

—

_____ Summary of Conclusions from the Meeting:

—

_____ Key Issues:

—

_____ Was agreement reached on the issues? Yes____ No____ If agreement was reached, detail

the agreement below: If agreement was not reached, specify the points of disagreement below and

Next Action Step Agreed:

—

_____ Signed (Conciliator): _____ Signed (person): _____

_____ Signed (Independent Observer): _____

Date: _____

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11.6 Annex 6: Labor Camp Guidelines

Establishing labor camp

The establishment and operation of a camp is likely to produce adverse impacts upon the bio-physical as well as the social and economic environments. It is imperative to safeguard the environment and society and to reduce and mitigate the negative impacts that are likely to be produced for the operation of camps. It is envisaged that a Contractor will follow the following guidelines during the operation of camps in the project areas and ensure that the project will be accomplished and benefited including local community and labor workers. Similarly, central level monitoring will be executed for the proposed camp sites under the consideration of the following guidelines.

As part of the site selection process, the Contractor is expected to undertake local community consultations with women in safe and confidential spaces to discuss risk, potential location of camps and proximity to villages, towns, schools, markets, etc., as well as identify any risk factors for community-worker interaction etc.

After the selection of the camp site by the project, the Contractor shall submit to the project a detailed layout plan for development of the construction camp, indicating the various structures to be constructed including the temporary structures to be put up, drainage and other facilities. The plan will include the redevelopment of sites to pre-construction stage. The Contractor shall provide temporary accommodation to all the workers employed by him for such a period as the construction work is in progress. The Contractor shall not charge any cost to the resident's labor.

Lodging facilities

For non-local workers, a Contractor shall provide adequate lodging/accommodation. Separate, secure, and lockable compartments shall be provided for male and female workers for their accommodation. If couples live in the camp, then they shall be provided with separate compartments. The accommodation areas for workers shall be designed, constructed and furnished. Changing rooms shall be provided for workers who are required to wear working clothes. Provision shall be made for separate, secure, and lockable changing rooms for men and women.

Food and Energy

The availability and proper storage of quality food and potable water is also the responsibility of a

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Contractor. The quality of food grains and other consumable items and water must be provided. In case laborers wish to prepare their own meals, the Contractor shall provide adequate cooking facilities. In camps where cooking facilities are used in common, legal source of energy shall be provided. Such kitchen shall be established at least 10m distance from any sort of water sources.

Water and Sanitation

Adequate water storage facility shall be provided in a proposed camp site. Workers working on a construction site shall be provided with drinking water which meets the standards established for drinking water. Lavatories facilities should be adequate for the capacity of a camp. The lavatories shall be adequately lit and shall be maintained in a clean sanitary condition at all times. Water shall be provided in or near the lavatories by storage in suitable containers (tank, buckets etc.)

If proper sewerage system is not available at the proposed camp site, Contractor shall have established toilets with septic tank for the proper disposal of waste. Bamboos and plastic sheets shall be used as encircle material for the establishment of temporary toilets. However, Contractor shall ensure that the site is free from open defecation. Provision shall be made for separate lavatories for men and women on the camp site and these rooms shall be distinctly marked "for men" and "for women" by signs printed in native language of the persons occupying the camp, or marked with easily understood pictures or symbols. If the facilities for each sex are in the same building, they shall be separated by solid walls or partitions extending from the floor to the roof or ceiling. The camp site should be served by energy.

Contractor shall provide adequate waste disposal facilities for the storage Garbage containers shall be kept clean and shall be emptied when full, but not less than twice a week. In case garbage is disposed, only biodegradable waste and organic kitchen waste shall be dumped in pit. Pit shall be at least 150 ft. away from the camp site, whereas Contractor shall ensure that diseases will not spread into nearby community and any sort of contamination into water bodies and ambient environment. Contractor shall also ensure that the pit is covered properly after disposal of degradable waste every day to reduce spread of fly and rodents. Liquid waste generated from the camp site shall not be disposed directly into any surface water bodies. The Contractor shall ensure proper management of ground drainage from camps as a preventive measure against breeding places of mosquitoes and other pests. Non-biodegradable wastes shall be kept in containers and shall be disposed into proper place.

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Contractor shall provide adequate health services to workers on the site. A permanent health worker is required. Construction sites shall be equipped with First Aid Kit at every construction campsite with essential first aid equipment and stretchers. The Contractor shall ensure that first aid can be provided to workers who have had an accident or have suddenly been taken ill on the site.

The construction camps shall be equipped with fire-fighting equipment and facilities. Fire extinguishing equipment shall be provided at readily accessible and adequately marked locations at Camp. Every worker should be trained in use of fire extinguishing equipment. At least one fire extinguisher shall be provided, where flammable liquids or combustible materials are stored, handled or used. Fire extinguishing equipment shall be of a suitable type and size to permit the evacuation of workers during a fire. After a fire extinguisher is used, it shall be refilled or replaced immediately. Every fire extinguisher shall be inspected for defects or deterioration at least once a month by a competent worker who shall record the date of the inspection on a tag attached to it.

A camp site shall be adequately drained. All temporary camps shall be constructed using tents, and shall be closed from all side to protect from wind and water, while at the same time ensuring ventilation. A Contractor shall provide separate store room or compartment for the storage of handy construction equipment's. Play grounds and other recreational and refreshing activities shall be provided in a proposed camp site where a worker could spend his/her leisure time.

Additional reference can be made to Workers' accommodation: processes and standards Public guidance note by IFC and the EBRD (August 2009)

https://www.ebrd.com/downloads/about/sustainability/Workers_accomodation.pdf

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11.7 Annex 7: Covid-19 Guidelines on Prevention and Management

As per the ESF/Safeguards Interim Note: Covid-19 Considerations In Construction/Civil Works Projects (April 2020), the Contractor is required to:

- develop a Covid19 prevention plan taking into account current and relevant guidance provided by national authorities, WHO and other organizations (further specification in section 24.1);
- convene regular meetings with the project health and safety specialists and medical staff (and where appropriate the local health authorities), and to take their advice in designing and implementing the agreed measures.
- where possible, a senior person should be identified as a focal point to deal with COVID-19 issues. This can be a work supervisor or a health and safety specialist. This person can be responsible for coordinating preparation of the site and making sure that the measures taken are communicated to the workers, those entering the site and the local community. It is also advisable to designate at least one back-up person, in case the focal point becomes ill; that person should be aware of the arrangements that are in place.

Workers should be encouraged to use the existing project grievance mechanism to report concerns relating to COVID-19, preparations being made by the project to address COVID-19 related issues, how procedures are being implemented, and concerns about the health of their co-workers and other staff.

Covid19 prevention plan requirements

Specific content of the Contractor Covid19 Prevention plan should include the following information:

A. ASSESSING WORKFORCE CHARACTERISTICS

Many construction sites will have a mix of workers e.g. workers from the local communities; workers from a different part of the country; workers from another country. Workers will be employed under different terms and conditions and be accommodated in different ways. Assessing these different aspects of the workforce will help in identifying appropriate mitigation measures:

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- The Contractor should prepare a detailed profile of the project work force, key work activities, schedule for carrying out such activities, different durations of contract and rotations (e.g. 4 weeks on, 4 weeks off).
- This should include a breakdown of workers who reside at home (i.e. workers from the community), workers who lodge within the local community and workers in on-site accommodation. Where possible, it should also identify workers that may be more at risk from COVID-19, those with underlying health issues or who may be otherwise at risk.
- Consideration should be given to ways in which to minimize movement in and out of site. This could include lengthening the term of existing contracts, to avoid workers returning home to affected areas, or returning to site from affected areas.
- Workers accommodated on site should be required to minimize contact with people near the site, and in certain cases be prohibited from leaving the site for the duration of their contract, so that contact with local communities is avoided.
- Consideration should be given to requiring workers lodging in the local community to move to site accommodation (subject to availability) where they would be subject to the same restrictions.
- Workers from local communities, who return home daily, weekly or monthly, will be more difficult to manage. They should be subject to health checks at entry to the site (as set out above) and at some point, circumstances may make it necessary to require them to either use accommodation on site or not to come to work.

B. ENTRY/EXIT TO THE WORK SITE AND CHECKS ON COMMENCEMENT OF WORK

- Entry/exit to the work site should be controlled and documented for both workers and other parties, including support staff and suppliers. Possible measures may include:
- Establishing a system for controlling entry/exit to the site, securing the boundaries of the site, and establishing designating entry/exit points (if they do not already exist). Entry/exit to the site should be documented.
- Training security staff on the (enhanced) system that has been put in place for securing the site and controlling entry and exit, the behaviors required of them in enforcing such system and any COVID -19 specific considerations.

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- Training staff who will be monitoring entry to the site, providing them with the resources they need to document entry of workers, conducting temperature checks and recording details of any worker that is denied entry.
- Confirming that workers are fit for work before they enter the site or start work. While procedures should already be in place for this, special attention should be paid to workers with underlying health issues or who may be otherwise at risk. Consideration should be given to demobilization of staff with underlying health issues.
- Checking and recording temperatures of workers and other people entering the site or requiring self-reporting prior to or on entering the site.
- Providing daily briefings to workers prior to commencing work, focusing on COVID-19 specific considerations including cough etiquette, hand hygiene and distancing measures, using demonstrations and participatory methods.
- During the daily briefings, reminding workers to self-monitor for possible symptoms (fever, cough) and to report to their supervisor or the COVID-19 focal point if they have symptoms or are feeling unwell.
- Preventing a worker from an affected area or who has been in contact with an infected person from returning to the site for 14 days or (if that is not possible) isolating such worker for 14 days.
- Preventing a sick worker from entering the site, referring them to local health facilities if necessary or requiring them to isolate at home for 14 days.

C. GENERAL HYGIENE

- Requirements on general hygiene should be communicated and monitored, to include:
- Training workers and staff on site on the signs and symptoms of COVID-19, how it is spread, how to protect themselves (including regular handwashing and social distancing) and what to do if they or other people have symptoms (for further information see WHO COVID-19 advice for the public).
- Placing posters and signs around the site, with images and text in local languages.
- Ensuring handwashing facilities supplied with soap, disposable paper towels and closed waste bins exist at key places throughout site, including at entrances/exits to work areas; where there is a toilet, canteen or food distribution, or provision of drinking water; in worker accommodation; at waste stations; at stores; and in common spaces. Where handwashing

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facilities do not exist or are not adequate, arrangements should be made to set them up. Alcohol based sanitizer (if available, 60-95% alcohol) can also be used.

- Review worker accommodations, and assess them in light of the requirements set out in IFC/EBRD guidance on Workers' Accommodation: processes and standards, which provides valuable guidance as to good practice for accommodation.
- Setting aside part of worker accommodation for precautionary self-quarantine as well as more formal isolation of staff who may be infected (see paragraph (f)).

D. CLEANING AND WASTE DISPOSAL

- Conduct regular and thorough cleaning of all site facilities, including offices, accommodation, canteens, common spaces. Review cleaning protocols for key construction equipment (particularly if it is being operated by different workers). This should include:
 - Providing cleaning staff with adequate cleaning equipment, materials and disinfectant.
 - Review general cleaning systems, training cleaning staff on appropriate cleaning procedures and appropriate frequency in high use or high-risk areas.
 - Where it is anticipated that cleaners will be required to clean areas that have been or are suspected to have been contaminated with COVID-19, providing them with appropriate PPE: gowns or aprons, gloves, eye protection (masks, goggles or face screens) and boots or closed work shoes. If appropriate PPE is not available, cleaners should be provided with best available alternatives.
- Training cleaners in proper hygiene (including handwashing) prior to, during and after conducting cleaning activities; how to safely use PPE (where required); in waste control (including for used PPE and cleaning materials).
- Any medical waste produced during the care of ill workers should be collected safely in designated containers or bags and treated and disposed of following relevant requirements (e.g., national, WHO). If open burning and incineration of medical wastes is necessary, this should be for as limited a duration as possible. Waste should be reduced and segregated, so that only the smallest amount of waste is incinerated (for further information see WHO interim guidance on water, sanitation and waste management for COVID-19).

E. ADJUSTING WORK PRACTICES

Consider changes to work processes and timings to reduce or minimize contact between workers, recognizing that this is likely to impact the project schedule. Such measures could include:

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- Decreasing the size of work teams.
- Limiting the number of workers on site at any one time.
- Changing to a 24-hour work rotation.
- Adapting or redesigning work processes for specific work activities and tasks to enable social distancing, and training workers on these processes.
- Continuing with the usual safety trainings, adding COVID-19 specific considerations. Training should include proper use of normal PPE. While as of the date of this note, general advice is that construction workers do not require COVID-19 specific PPE, this should be kept under review (for further information see WHO interim guidance on rational use of personal protective equipment (PPE) for COVID-19).
- Reviewing work methods to reduce use of construction PPE, in case supplies become scarce or the PPE is needed for medical workers or cleaners. This could include, e.g. trying to reduce the need for dust masks by checking that water sprinkling systems are in good working order and are maintained or reducing the speed limit for haul trucks.
- Arranging (where possible) for work breaks to be taken in outdoor areas within the site.
- Consider changing canteen layouts and phasing meal times to allow for social distancing and phasing access to and/or temporarily restricting access to leisure facilities that may exist on site, including gyms.
- At some point, it may be necessary to review the overall project schedule, to assess the extent to which it needs to be adjusted (or work stopped completely) to reflect prudent work practices, potential exposure of both workers and the community and availability of supplies, taking into account Government advice and instructions.

F. PROJECT MEDICAL SERVICES

Consider whether existing project medical services are adequate, taking into account existing infrastructure (size of clinic/medical post, number of beds, isolation facilities), medical staff, equipment and supplies, procedures and training. Where these are not adequate, consider upgrading services where possible, including:

- Expanding medical infrastructure and preparing areas where patients can be isolated. Guidance on setting up isolation facilities is set out in WHO interim guidance on considerations for quarantine of individuals in the context of containment for COVID-19). Isolation facilities should be located away from worker accommodation and ongoing work

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activities. Where possible, workers should be provided with a single well-ventilated room (open windows and door). Where this is not possible, isolation facilities should allow at least 1 meter between workers in the same room, separating workers with curtains, if possible. Sick workers should limit their movements, avoiding common areas and facilities and not be allowed visitors until they have been clear of symptoms for 14 days. If they need to use common areas and facilities (e.g. kitchens or canteens), they should only do so when unaffected workers are not present and the area/facilities should be cleaned prior to and after such use.

- Training medical staff, which should include current WHO advice on COVID-19 and recommendations on the specifics of COVID-19. Where COVID-19 infection is suspected, medical providers on site should follow WHO interim guidance on infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected.
- Training medical staff in testing, if testing is available.
- Assessing the current stock of equipment, supplies and medicines on site, and obtaining additional stock, where required and possible. This could include medical PPE, such as gowns, aprons, medical masks, gloves, and eye protection. Refer to WHO guidance as to what is advised (for further information see WHO interim guidance on rational use of personal protective equipment (PPE) for COVID-19).
- If PPE items are unavailable due to world-wide shortages, medical staff on the project should agree on alternatives and try to procure them. Alternatives that may commonly be found on constructions sites include dust masks, construction gloves and eye goggles. While these items are not recommended, they should be used as a last resort if no medical PPE is available.
- Ventilators will not normally be available on work sites, and in any event, intubation should only be conducted by experienced medical staff. If a worker is extremely ill and unable to breathe properly on his or her own, they should be referred immediately to the local hospital (see (g) below).
- Review existing methods for dealing with medical waste, including systems for storage and disposal (for further information see WHO interim guidance on water, sanitation and waste management for COVID-19, and WHO guidance on safe management of wastes from health-care activities).

G. LOCAL MEDICAL AND OTHER SERVICES

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Given the limited scope of project medical services, the project may need to refer sick workers to local medical services. Preparation for this includes:

- Obtaining information as to the resources and capacity of local medical services (e.g. number of beds, availability of trained staff and essential supplies).
- Conducting preliminary discussions with specific medical facilities, to agree what should be done in the event of ill workers needing to be referred.
- Considering ways in which the project may be able to support local medical services in preparing for members of the community becoming ill, recognizing that the elderly or those with pre-existing medical conditions require additional support to access appropriate treatment if they become ill.
- Clarifying the way in which an ill worker will be transported to the medical facility, and checking availability of such transportation.
- Establishing an agreed protocol for communications with local emergency/medical services.
- Agreeing with the local medical services/specific medical facilities the scope of services to be provided, the procedure for in-take of patients and (where relevant) any costs or payments that may be involved.
- A procedure should also be prepared so that project management knows what to do in the unfortunate event that a worker ill with COVID-19 dies. While normal project procedures will continue to apply, COVID-19 may raise other issues because of the infectious nature of the disease. The project should liaise with the relevant local authorities to coordinate what should be done, including any reporting or other requirements under national law.

H. INSTANCES OR SPREAD OF THE VIRUS

WHO provides detailed advice on what should be done to treat a person who becomes sick or displays symptoms that could be associated with the COVID-19 virus (for further information see WHO interim guidance on infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected). The project should set out risk-based procedures to be followed, with differentiated approaches based on case severity (mild, moderate, severe, critical) and risk factors (such as age, hypertension, diabetes) (for further information see WHO interim guidance on operational considerations for case management of COVID-19 in health facility and community). These may include the following:

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- If a worker has symptoms of COVID-19 (e.g. fever, dry cough, fatigue) the worker should be removed immediately from work activities and isolated on site.
- If testing is available on site, the worker should be tested on site. If a test is not available at site, the worker should be transported to the local health facilities to be tested (if testing is available).
- If the test is positive for COVID-19 or no testing is available, the worker should continue to be isolated. This will either be at the work site or at home. If at home, the worker should be transported to their home in transportation provided by the project.
- Extensive cleaning procedures with high-alcohol content disinfectant should be undertaken in the area where the worker was present, prior to any further work being undertaken in that area. Tools used by the worker should be cleaned using disinfectant and PPE disposed of.
- Co-workers (i.e. workers with whom the sick worker was in close contact) should be required to stop work, and be required to quarantine themselves for 14 days, even if they have no symptoms.
- Family and other close contacts of the worker should be required to quarantine themselves for 14 days, even if they have no symptoms.
- If a case of COVID-19 is confirmed in a worker on the site, visitors should be restricted from entering the site and worker groups should be isolated from each other as much as possible.
- If workers live at home and has a family member who has a confirmed or suspected case of COVID-19, the worker should quarantine themselves and not be allowed on the project site for 14 days, even if they have no symptoms.
- Workers should continue to be paid throughout periods of illness, isolation or quarantine, or if they are required to stop work, in accordance with national law.
- Medical care (whether on site or in a local hospital or clinic) required by a worker should be paid for by the employer.

I. CONTINUITY OF SUPPLIES AND PROJECT ACTIVITIES

Where COVID-19 occurs, either in the project site or the community, access to the project site may be restricted, and movement of supplies may be affected.

- Identify back-up individuals, in case key people within the project management team (PIU, Supervising Engineer, Contractor, sub-Contractors) become ill, and communicate who these are so that people are aware of the arrangements that have been put in place.

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- Document procedures, so that people know what they are, and are not reliant on one person's knowledge.
- Understand the supply chain for necessary supplies of energy, water, food, medical supplies and cleaning equipment, consider how it could be impacted, and what alternatives are available. Early pro-active review of international, regional and national supply chains, especially for those supplies that are critical for the project, is important (e.g. fuel, food, medical, cleaning and other essential supplies). Planning for a 1-2 month interruption of critical goods may be appropriate for projects in more remote areas.
- Place orders for/procure critical supplies. If not available, consider alternatives (where feasible).
- Consider existing security arrangements, and whether these will be adequate in the event of interruption to normal project operations.
- Consider at what point it may become necessary for the project to significantly reduce activities or to stop work completely, and what should be done to prepare for this, and to restart work when it becomes possible or feasible.

J. TRAINING AND COMMUNICATION WITH WORKERS

Workers need to be provided with regular opportunities to understand their situation, and how they can best protect themselves, their families and the community. They should be made aware of the procedures that have been put in place by the project, and their own responsibilities in implementing them.

- It is important to be aware that in communities close to the site and amongst workers without access to project management, social media is likely to be a major source of information. This raises the importance of regular information and engagement with workers (e.g. through training, town halls, tool boxes) that emphasizes what management is doing to deal with the risks of COVID-19. Allaying fear is an important aspect of work force peace of mind and business continuity. Workers should be given an opportunity to ask questions, express their concerns, and make suggestions.
- Training of workers should be conducted regularly, as discussed in the sections above, providing workers with a clear understanding of how they are expected to behave and carry out their work duties.
- Training should address issues of discrimination or prejudice if a worker becomes ill and provide an understanding of the trajectory of the virus, where workers return to work.

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- Training should cover all issues that would normally be required on the work site, including use of safety procedures, use of construction PPE, occupational health and safety issues, and code of conduct, taking into account that work practices may have been adjusted.
- Communications should be clear, based on fact and designed to be easily understood by workers, for example by displaying posters on handwashing and social distancing, and what to do if a worker displays symptoms.

K. COMMUNICATION AND CONTACT WITH THE COMMUNITY

Relations with the community should be carefully managed, with a focus on measures that are being implemented to safeguard both workers and the community. The community may be concerned about the presence of non-local workers, or the risks posed to the community by local workers presence on the project site. The project should set out risk-based procedures to be followed , which may reflect WHO guidance (for further information see WHO Risk Communication and Community Engagement (RCCE) Action Plan Guidance COVID-19 Preparedness and Response). The following good practice should be considered:

- Communications should be clear, regular, based on fact and designed to be easily understood by community members.
- Communications should utilize available means. In most cases, face-to-face meetings with the community or community representatives will not be possible. Other forms of communication should be used; posters, pamphlets, radio, text message, electronic meetings. The means used should take into account the ability of different members of the community to access them, to make sure that communication reaches these groups.
- The community should be made aware of procedures put in place at site to address issues related to COVID-19. This should include all measures being implemented to limit or prohibit contact between workers and the community. These need to be communicated clearly, as some measures will have financial implications for the community (e.g. if workers are paying for lodging or using local facilities). The community should be made aware of the procedure for entry/exit to the site, the training being given to workers and the procedure that will be followed by the project if a worker becomes sick.

If project representatives, Contractors or workers are interacting with the community, they should practice social distancing and follow other COVID-19 guidance issued by relevant authorities, both national and international (e.g. WHO).

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11.8 Annex 8: Outline for Preliminary Environmental and Social Screening Report

The preliminary ES Screening report is to be used as part of the E&S preliminary impact assessment for subprojects such as new borrow pits, quarries, detours, access roads, asphalt plant, concrete plant, new bridges, etc..

Environmental Screening Form for Checklist of Likely Environmental and Social Impacts of Sub-projects

Project title:

Number:

Project type:

Name of district for infrastructure rehabilitation/construction:

Name of Executing Agent:

Date:

Name of the Approving Authority:

PART A: BRIEF DESCRIPTION OF THE PROPOSED ACTIVITIES

Please provide brief information on road rehabilitation project road (extension, width)_____

Please provide information regarding actions needed during the construction of facilities including support/ancillary structures and activities required to build them, e.g. need for borrow pits, access roads, campsites

etc._____

Please describe how the construction/rehabilitation activities will be carried out, including complementary activities and infrastructures and resources required e.g., roads, and traffic routes, disposal sites (waste and removed materials), water supply, energy requirement, storage areas, human resources, worker camps, security arrangements, etc._____

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PART B: BRIEF DESCRIPTION OF THE ENVIRONMENTAL SITUATION AND IDENTIFICATION OF ENVIRONMENTAL AND SOCIAL IMPACTS

Name, job title, and contact details of the person responsible for filling the Form:

Name:

Job title:

Telephone numbers:

Fax Number:

E-mail address:

Date:

Signature:

Please describe the proposed infrastructures location, siting, coordinates; surroundings (include a map of the sub region as well as a detailed area map of the project and its ancillary facilities, and their immediate surroundings).

Describe the land formation, topography, vegetation in/adjacent to the activity areas (project and ancillary facilities/activities)

Estimate and indicate where vegetation might need to be cleared, erosion and drainage issues might occur.

	Environmental and social aspect	Yes	No	I don't Know	Mitigation measures
	Is the site zoned for the proposed land-use?				
	Are there any environmentally sensitive areas or threatened species (specify below) that could be adversely affected by the project?				
	Are there any intact natural forests? Or other vegetation?				
	Is there any surface water courses, natural springs?				
	Is the water table close to the surface? i.e. 0,5 m or less?				
	Are there any wetlands (lakes, rivers, swamp, seasonally inundated areas) in the proximity of the site?				
	Is the project located near the coast? If so near any marine reserve area?				
	Is there any area of high biodiversity or high conservation value?				
	Are there habitats of endangered/threatened or rare species for which protection is required under the Mozambican national law/local law and/or international				

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	Environmental and social aspect	Yes	No	I don't Know	Mitigation measures
	agreements (such as IUCN listed or identified as HVCA or IBA?)				
	Is there a possibility that, due to construction/rehabilitation works and subsequent operation of the infrastructure, coastal, the river and lake ecology will be negatively affected with regards to its water quality and quantity?				
	Is the site (or its complementary facilities) located within/adjacent to any protected areas designated by the government or international agreement (national park, national reserve, world heritage site etc.)?				
	Is the project likely to alter any historical, archaeological, cultural heritage traditional (sacred, ritual area) site or require excavation or other significant disruption near same?				
	Will the project involve any land acquisition?				
	Will any such land acquisition be effected through voluntary donations?				
	Will the activities be located in any vacant public land?				
	Under any of the types of land acquisition above are there any current uses or activities on the land proposed to be acquired? Any formal or informal occupation?				
	Is the project located in any or near polluted area (near a waste dump or any industrial facility)?				
	Is the project located in an area of steep slope and or susceptible to landslides or erosion of soils?				
	Is the project located in or near to agricultural land? Including seasonal, recession, or sporadic agriculture?				
	Is the project located in the proximities of tourism activities?				
	Is the project site susceptible to natural disasters (flooding, fire, cyclones and earth quake)?				
	Is the project located in area of population concentration points (schools, markets, health facilities, churches, office buildings, water sources and commercial areas, transportation hubs)?				
	Will the construction/rehabilitation activities including support facilities result in the permanent or temporary loss of crops, fruit trees and household or livelihood related infra-structure (such as granaries, outside toilets and kitchens, livestock grazing and watering areas, irrigation canals, wells and water sources?				
	Will the construction/rehabilitation activities including support facilities interfere with employment, livelihood activities, markets or formal or informal commercial activities including street vendors and similar?				
	Will the construction/rehabilitation works interfere with or block access, routes etc. (for people, livestock and wildlife) or traffic routing and flows?				
	Will the construction or operating noise or vibration level exceed the allowable/safe noise/vibration limits?				

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	Environmental and social aspect	Yes	No	I don't Know	Mitigation measures
	Will the construction/rehabilitation works require large number of staff and laborers as compared to the size of the communities? large construction camp? Overnight worker accommodations for extended periods?				
	Will the activities result in emission of significant amounts of dust, hazardous fumes?				
	Will the activities decrease traffic or personal safety in their immediacy or beyond? during construction and/or operation				
	Will the construction/rehabilitation works generate solid or liquid wastes? (including human excreta/sewage, asbestos,)				
	Are the construction/rehabilitation activities prone to hazards, risks and could they result in accidents and injuries to workers or nearby communities during construction or operation?				
	Will the operation involve use of considerable amounts of natural resources (construction materials, water, land, energy from biomass etc.) or may lead to their depletion or degradation at points of source or discharge?				
	Has public consultation and participation been sought?				
	Will the project interfere with community (households) access to water, firewood, medicinal and food plants, hunting or fishing resources, and other natural resources in general that support food security or livelihood activities?				
	Will the community participate in work opportunities or receive any benefits from the project?				
	Is the community highly vulnerable?				
	Is the community conflictive?				
	Is the community known to be opposed to the project or similar activities?				

PART D: MITIGATION MEASURES

For all “Yes” responses, please briefly describe the nature and scope of the impacts and the measures proposed to be taken to address them. Subsequent to completion of the present Environmental and Social Screening Form, the analysis by the DPTADER will follow in order to classify the activity into one of the categories A+, A, B or C according to local law.

The PIU (along with DPTADER as applicable) will validate the category under the ESMP and ensure that the appropriate ESHS studies are carried out and an ESMP, and where applicable a RP are prepared.

PART E: SCREENING RESULTS

Eligible for funding _____ Yes _____ No

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If No, state reason and recommend needed for revision of design_____

Requirements (check) _____ ESMP _____ ESIA/ESMP _____ RP _____ Abbreviated RP

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Formulário para Triagem Ambiental e Social de Subprojectos

Identificação do subprojecto:

Localização do subprojecto:

(Identificar a Província e o Município em que se localiza o subprojecto e apresentar localização da área de implantação num mapa, se possível, apresentar fotografia da área de implantação)

Tipo de actividade: _____

(nova construção, expansão, reabilitação)

Custo estimado: _____

Data estimada de início: _____

Descrição sumárias das principais características do subprojecto:

(Layout, dimensão, capacidade, edifícios e estruturas, principais materiais de construção, entre outros. Se possível apresentar desenho geral)

Lista de verificação

No preenchimento da tabela abaixo devem ser observadas as seguintes instruções:

Na Coluna 2 seleccionar a resposta correcta, “**Sim**”, “**Não**”, ou “**?**” (se a resposta for desconhecida).

Inserir uma descrição breve e objectiva da informação de consubstancia a resposta escolhida.

Na Coluna 3 indicar se são previstos riscos e impactos significativos associados à questão em causa, indicando “**S**” – risco ou impacto significativo; “**NS**” – risco ou impacto existe, mas não é significativo; “**N**” – não se prevê a ocorrência de risco ou impacto perceptível; ou “**?**”- se desconhecido. Incluir uma breve nota justificativa do nível de Significância seleccionado (critérios indicativos para avaliar o nível de significância dos riscos e impactos são apresentados após o formulário).

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O nível de significância dos riscos e impactos indicado na Coluna 3 não deve considerar a adopção de medidas de mitigação. Com base nesta premissa seleccionar:

“NS” ou “N”, conforme aplicável, se o risco ou impacto identificado, sem consideração de medidas de mitigação, não atingir ou exceder qualquer um dos critérios de Significância (indicados após o formulário);

“S” se o risco ou impacto, sem consideração de medidas de mitigação, atinge ou excede qualquer um dos critérios de Significância (indicados após o formulário).

Questões para triagem	Sim / Não / ? Inserir breve fundamentação)	Potenciais Riscos e Impactos Significativos? (S / NS / N / ?) Inserir justificação
Riscos e Impactos Relacionados com o Subprojecto		
Tipologia e Escala do Subprojecto (Ref. NAS 1, NAS 2, NAS 3, NAS 6)		
O subprojecto envolverá acções (durante a construção, operação ou desactivação) que irão provocar alterações físicas na área de implantação (por exemplo, topografia, uso do terreno, alterações no meio hídrico, reassentamento, etc.)?		
A escala do subprojecto tem o potencial de causar riscos e impactos ambientais e sociais diversos e múltiplos numa grande área? Isto aplica-se tanto aos riscos directos como indirectos e aos impactos.		
O subprojecto tem o potencial de gerar impacto em espécies migratórias ameaçadas e/ou ameaçadas de extinção e nos seus habitats?		
O subprojecto dispõe de instalações associadas (de acordo com os parágrafo. 11 da NAS 1) que podem conduzir a riscos e impactos ambientais e sociais abrangentes? O desenho do subprojecto tem em conta tais instalações associadas?		
Existem outros projectos ou actividades (existentes/ planeadas) que, em combinação com o subprojecto proposto, possam ter um impacto negativo em componentes valiosas do ecossistema?		
O desenvolvimento do subprojecto implicará a utilização de trabalhadores a tempo inteiro ou a tempo parcial? Em caso afirmativo, qual seria o número aproximado?		
O desenvolvimento do subprojecto terá o potencial para gerar imigração de trabalhadores e pessoas que procuram emprego (por exemplo, estrangeiros, sazonais, transitórios)?		
Existe potencial para o emprego de trabalhadores comunitários?		

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Questões para triagem	Sim / Não / ? Inserir breve fundamentação)	Potenciais Riscos e Impactos Significativos? (S / NS / N / ?) Inserir justificação
Existe algum historial de empreiteiros, subempreiteiros e/ou fornecedores primários?		
Existe algum impedimento institucional para um tratamento justo, não discriminatório e/ou igualdade de oportunidades?		
Existe potencial para o emprego de indivíduos ou grupos vulneráveis, como mulheres, pessoas com deficiência, trabalhadores migrantes ou crianças (em idade activa, de acordo com a NAS 2)?		
Existe risco de trabalho infantil ou trabalho forçado?		
A legislação nacional reconhece o direito dos trabalhadores formarem e aderirem a organizações sindicais e de negociarem colectivamente sem interferências? Os arranjos do subprojecto contemplam a presença de organizações representativas de trabalhadores?		
Existe algum impedimento para que o subprojecto forneça aos trabalhadores meios acessíveis para apresentarem as suas preocupações e reclamações (isto é, um mecanismo de feedback e resolução de reclamações de natureza laboral)?		
Existe potencial para condições de trabalho perigosas que possam expor os trabalhadores a práticas de trabalho inseguras ou substâncias ou condições perigosas?		
A construção ou exploração do subprojecto utilizará recursos naturais não vivos, incluindo energia, água e/ou matérias-primas, especialmente quaisquer recursos que não sejam renováveis ou sejam escassos?		
O subprojecto resultará na libertação de poluentes para o ar (incluindo incómodos), meio hídrico ou solos devido a circunstâncias rotineiras, não-regulares e acidentais e com potencial para impactos locais, regionais e/ou transfronteiriços?		
O subprojecto envolve poluição histórica, que afecta os recursos terrestres e hídricos, que pode resultar em riscos para a saúde humana ou para o ambiente? (N.B Poluição histórica define-se como a poluição proveniente de actividades passadas que afectam os recursos terrestres e hídricos para os quais nenhuma parte assumiu ou foi atribuída a responsabilidade de abordar e realizar a remediação necessária).		
O subprojecto gerará resíduos (perigosos ou não perigosos)?		
O subprojecto envolverá questões ou actividades de gestão de pragas que possam conduzir a questões de		

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Questões para triagem	Sim / Não / ? Inserir breve fundamentação)	Potenciais Riscos e Impactos Significativos? (S / NS / N / ?) Inserir justificação
gestão de pragas e pesticidas (de acordo com o parágrafo 25 do NAS 3)?		
Localização do Subprojecto e Sensibilidade da Área de Implantação (Ref. NAS 1, NAS 4, NAS 5, NAS 7, NAS 8, Directiva do Banco sobre Riscos e Impactos em Indivíduos ou Grupos Desfavorecidos ou Vulneráveis, Igualdade de Género)		
O subprojecto localiza-se numa área sensível considerando valores ecológicos, sociais, culturais, espirituais ou outros valores importantes?		
O subprojecto apresenta riscos e impactos sobre indivíduos ou grupos que, devido às suas circunstâncias, podem ser desfavorecidos ou vulneráveis considerando a sua: Idade, sexo, etnia, ou raça Religião e sistemas de crenças Agrupamento ou nacionalidade socioculturais Comunidades Locais Tradicionais Historicamente Desfavorecidas de Africa Subsaariana Dependência de recursos naturais únicos Alterações climáticas e factores sazonais Desastres naturais Deficiência física, mental ou outra, e estado de saúde Estatuto de posse de terras Estatuto social, cívico ou económico Orientação sexual e identidade Quais são as diferentes formas de vulnerabilidade (as que têm mais probabilidades de ser alvo de impactos desproporcionados) e marginalidade (aquelas mais susceptíveis de receber benefícios diferenciais)?		
O subprojecto tem alguma actividade que interaja com sistemas de posse de terras (titulação de terras, registo de terras, reconhecimento dos direitos dos utilizadores de terras)? É provável que ocorram riscos sociais relacionados com a terra devido à falta de compreensão desses sistemas e às dinâmicas sociais à sua volta?		
Poderá o subprojecto expor as comunidades a emergências ou perigos que envolvam riscos e impactos para a saúde ou segurança? Isto inclui potenciais impactos nas comunidades a partir do fluxo de mão de obra induzido por subprojectos temporários.		
As actividades de subprojecto, obras civis ou edifícios localizados em áreas propensas a desastres naturais ou eventos climáticos extremos?		
O subprojecto resultará em potenciais riscos de tráfego e segurança rodoviária para os trabalhadores,		

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Questões para triagem	Sim / Não / ? Inserir breve fundamentação)	Potenciais Riscos e Impactos Significativos? (S / NS / N / ?) Inserir justificação
comunidades e utentes da estrada ao longo do ciclo de vida do subprojecto?		
O subprojecto terá impactos directos nos serviços dos ecossistemas que possam resultar em riscos adversos para a saúde e segurança das comunidades afectadas?		
O subprojecto envolve um potencial de exposição comunitária a doenças de origem hídrica, doenças transmitidas por vectores, doenças transmissíveis e não transmissíveis? Isto inclui doenças transmissíveis associadas ao afluxo de trabalhadores temporários ou permanentes do subprojecto.		
O subprojecto envolve o uso de forças de segurança governamentais ou privadas? As forças de segurança estiveram envolvidas noutros subprojectos ou similares no mesmo local?		
O subprojecto implicará a aquisição ou tomada de terrenos utilizando uma das seguintes modalidades? Tomada involuntária de terras pelo Estado Transacções voluntárias de comprador/vendedor Doações voluntárias de terras por particulares, famílias, empresas ou comunidades. Existe legislação nacional relacionada com esta prática?		
Quais são os tipos de perdas esperadas relacionadas com a tomada de terras? Por exemplo, deslocamento económico, perdas de activos, interrupções nas empresas? É permanente ou temporário?		
O subprojecto exigirá o desalojamento físico de quaisquer indivíduos, famílias, grupos ou comunidades? Quantos são susceptíveis de ser afectados?		
A tomada de terras para actividades de subprojecto gerará impactos adversos nos meios de subsistência? Quantos indivíduos, grupos ou comunidades são susceptíveis de ser afectados?		
Para além da perda de terrenos e bens físicos, a tomada de terras implicará a perda ou restrição do acesso a áreas protegidas ou recursos naturais de que dependem indivíduos ou comunidades? Quantos indivíduos, grupos ou comunidades são susceptíveis de ser afectados?		
O subprojecto irá afectar os direitos de terra ou os direitos de utilização dos terrenos, quer os indivíduos ou grupos sejam ou não deslocalizados? Quantos indivíduos, grupos ou comunidades são susceptíveis de ser afectados?		
A aquisição ou reinstalação de terras afecta indivíduos, famílias ou grupos que podem ser desfavorecidos ou vulneráveis no processo de aquisição de terras (por		

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Questões para triagem	Sim / Não / ? Inserir breve fundamentação)	Potenciais Riscos e Impactos Significativos? (S / NS / N / ?) Inserir justificação
exemplo, colonos informais, mulheres, pessoas sem título legal, pobres, minorias, refugiados)?		
As actividades do subprojecto terão quaisquer impactos ou riscos adversos para qualquer categoria de habitats definidos de acordo com a NAS 6 Habitat Modificado Habitat Natural Habitat Crítico		
O subprojecto está localizado dentro, ou tem o potencial de afectar negativamente, uma área legalmente protegida, designada para protecção, ou regional ou internacionalmente reconhecida como uma área de elevado valor de biodiversidade?		
O subprojecto resultará na introdução intencional ou accidental de espécies exóticas alienígenas de flora e fauna em áreas onde normalmente não são encontradas?		
Existe potencial para riscos ou impactos na prestação de serviços de ecossistemas?		
Na área do subprojecto existem CLTHDAS?		
O subprojecto será implantado em terras ou territórios que estejam sob o controlo habitual ou propriedade desses grupos indígenas?		
Esses grupos serão afectados (positiva ou negativamente) pelas actividades do subprojecto?		
As actividades de subprojecto que afectam estes grupos vão ao encontro dos critérios da NAS para o CLPI (isto é, impactos nos terrenos, reinstalação de grupos indígenas ou impactos no património cultural?)		
As actividades do subprojecto são susceptíveis de serem controversas para grupos indígenas?		
As actividades do subprojecto são susceptíveis de afectar o património cultural tangível e/ou imaterial, tal como definido no âmbito da NAS 8?		
As actividades do subprojecto envolverão escavações, demolições, movimentos de terra, inundações ou alterações ao ambiente físico que possam afectar os valores do património cultural?		
As actividades do subprojecto estão localizadas em áreas legalmente reconhecidas e/ou legalmente protegidas ou zonas tampão definidas para a protecção do património cultural? As actividades do subprojecto afectarão o património cultural em áreas ou zonas de protecção não designadas ou legalmente reconhecidas?		

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Questões para triagem	Sim / Não / ? Inserir breve fundamentação)	Potenciais Riscos e Impactos Significativos? (S / NS / N / ?) Inserir justificação
As actividades do subprojecto afectarão características naturais do património cultural, como os bosques sagrados, as florestas espirituais ou as paisagens culturalmente importantes?		
O subprojecto afectará bens patrimoniais culturais que são móveis (isto é, livros raros, manuscritos, pinturas, etc.)?		
Existe a probabilidade do subprojecto proposto ter impactos adversos na igualdade de género e/ou na situação das mulheres e das raparigas?		
O subprojecto poderia potencialmente gerar discriminação contra mulheres com base no género, especialmente no que diz respeito à participação na concepção e implementação do projecto ou no acesso a oportunidades e benefícios?		
Foram apresentadas algumas preocupações sobre a igualdade de género relativamente ao subprojecto durante o envolvimento das partes interessadas (se foi efectuado)?		
O subprojecto limitaria potencialmente a capacidade das mulheres de utilizarem, desenvolverem e protegerem os recursos naturais, tendo em conta diferentes papéis e posições de mulheres e homens no acesso a bens e serviços ambientais?		
Envolvimento de Partes Interessadas (Ref. NAS 1, NAS 10)		
O subprojecto envolve actividades ou iniciativas que são conhecidas por serem sensíveis ou controversas entre as partes interessadas do subprojecto? Quem são as potenciais partes interessadas?		
Houve, no passado, um diálogo público significativo, um envolvimento, uma consulta e a divulgação sobre o subprojecto e os seus riscos e impactos associados?		
Existe potencial para qualquer oposição pública ao subprojecto?		
Existe potencial para algum apoio público ao subprojecto?		
As partes interessadas do subprojecto são susceptíveis de apresentar visões amplamente divergentes sobre a necessidade, objectivos ou actividades definidas no âmbito do subprojecto?		
O apoio ao subprojecto representará um risco reputacional para o Banco no que respeita à percepção dos riscos e impactos ambientais e sociais?		
O subprojecto é susceptível de afectar indivíduos ou grupos desfavorecidos ou vulneráveis que exigiram		

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Questões para triagem	Sim / Não / ? Inserir breve fundamentação)	Potenciais Riscos e Impactos Significativos? (S / NS / N / ?) Inserir justificação
abordagens especializadas para a participação ou consulta?		
O subprojecto é susceptível de enfrentar quaisquer obstáculos à divulgação de informação, à partilha transparente de informações de subprojectos entre as partes interessadas ou a outros aspectos que possam afectar consultas significativas?		
O Mutuário ou a entidade implementadora têm um histórico de desempenho positivo no envolvimento com as partes interessadas em subprojectos semelhantes?		
O Mutuário ou a entidade implementadora têm um historial relativamente ao estabelecimento e utilização de mecanismos de reclamação?		
Existe o risco de violência por parte das partes interessadas?		
Existe um potencial de preconceito ou discriminação no acesso aos benefícios gerados pelo subprojectos para aqueles que podem ser desfavorecidos ou vulneráveis?		
Riscos e Impactos Relacionados com a Capacidade da Entidade Implementadora		
A entidade implementadora tem experiência no tipo de subprojecto proposto, incluindo o desempenho de tarefas de gestão de risco semelhantes?		
A entidade implementadora recebeu capacitação e treinamento para aplicação do QAS do BM?		
A entidade implementadora tem um historial de incumprimento das políticas do Banco, do QAS ou de políticas de outras entidades multilaterais?		
A entidade implementadora dispõe de um historial de incumprimento da regulamentação nacional ou regional pertinente?		
A entidade implementadora dispõe de recursos suficientes (isto é, humanos, financeiros, logísticos) para executar as tarefas de gestão dos potenciais riscos e impactos ambientais e sociais do subprojecto?		
A entidade implementadora dispõe de uma estrutura institucional adequada para apoiar a implementação das tarefas de gestão dos potenciais riscos e impactos ambientais e sociais de uma forma consistente com as NAS relevantes (por exemplo, políticas institucionais, linhas de informação, sistemas de garantia da qualidade, compromisso institucional com a sustentabilidade dos subprojectos, etc.)		
Existem factores externos que possam impedir a entidade implementadora de realizar as tarefas de gestão dos potenciais riscos e impactos ambientais e sociais?		

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Questões para triagem	Sim / Não / ? Inserir breve fundamentação)	Potenciais Riscos e Impactos Significativos? (S / NS / N / ?) Inserir justificação
Existe clareza em torno das disposições institucionais para a implementação das tarefas de gestão dos potenciais riscos e impactos ambientais e sociais (isto é, agências-chave e intervenientes em tarefas-chave durante a execução do subprojecto, tais como supervisão, execução, monitorização, etc.). A entidade implementadora tem áreas de sobreposição de papéis e responsabilidades com outras agências governamentais e intervenientes que podem conduzir a conflitos, despedimentos, ineficiências, etc.?		
A entidade implementadora está ciente dos mecanismos de comunicação e de coordenação necessários entre as agências e os intervenientes na implementação do subprojecto?		
Riscos Contextuais		
O subprojecto proposto localizar-se-á numa zona com tensões, conflitos e/ou instabilidade existente (por exemplo, guerra, insurreição, agitação civil) e, por conseguinte, susceptível de exacerbar os riscos e impactos ambientais e sociais e afectar o respectivo desempenho?		
O subprojecto proposto será localizado numa área de elevada criminalidade ou onde existam outras questões que representam um risco para a segurança pública?		
Poderá a incerteza política afectar o desempenho do subprojecto (por exemplo, mudança política, instabilidade política, etc.)?		
O subprojecto proposto situar-se-á numa zona onde há falta de coesão social?		
Existe um historial de activismo ambiental ou social na área do subprojecto (organizações locais ou internacionais)?		
Existem actividades ilícitas (por exemplo, mineração, silvicultura, culturas) nas proximidades do subprojecto que representem um risco para a execução do subprojecto e o seu respectivo desempenho ambiental e social global?		
Existem questões passadas na área do subprojecto susceptíveis de exacerbarem os riscos ou impactos ambientais e sociais (por exemplo, riscos para a saúde para as comunidades locais associados à contaminação anterior; questões antigas no que diz respeito a reassentamento involuntária, subprojectos não cumpridos ou compromissos governamentais)?		
O subprojecto situar-se-á numa zona onde o risco climático e/ou os riscos naturais (por exemplo, terremotos, deslizamentos de terra ou de lama,		

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Questões para triagem	Sim / Não / ? Inserir breve fundamentação)	Potenciais Riscos e Impactos Significativos? (S / NS / N / ?) Inserir justificação
inundações, vulcões, tempestades, etc.) poderão afectar a respectiva viabilidade, exacerbar os impactos ambientais e/ou apresentar uma preocupação acrescida de segurança para as comunidades afectadas?		

Classificação de Risco Ambiental e Social do Subprojecto

Com base nas respostas acima apresentadas indicar a classificação de risco ambiental e social aplicável ao subprojecto.

Alto Risco ☐

Risco Substancial ☐

Risco Moderado ☐

Baixo Risco ☐

Instrumentos de Avaliação Ambiental e Social a desenvolver para o Subprojecto

EIAS/PGAS ☐

EAS/PGAS ☐

PGAS ☐

Lista de Verificação de Impactos ☐

Cláusulas Ambientais e Sociais ☐

Plano de Reassentamento ☐

Plano de Restauração dos Meios de Subsistência ☐

Plano de Acção para a Biodiversidade ☐

Plano de Gestão do Património Cultural ☐

Concluído por (nome completo e contactos):

Assinatura: _____ Data: _____

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11.9 Annex 9: Quarry management monitoring guidelines

Datasheet for Quarry Management and Restoration Plan

Name of Subproject: Contract No:

Locations of Civil Works:

Required Type of Material from Local Sources: Stone / Gravel / Sand / Soil.

Required quantity of material from local quarry (in cum):

Selection of Quarry Sites: Parameter for quarry site selection: (e.g. unsuitable land for cultivation, stable slope, minimum environmental hazard etc.)

Sources of Material: Within RoW / Private land / Public land / Forest (community/private/government)/Surplus material extracted / River / Borrow pit / Roadway.....

1. Available quantity in Selected Source (in cum):

2. Approval for Quarry site: DIPREME/ Community / Land Owner (Attach agreement herewith).....

3. Method of extraction and transportation: Depth of cut / Height of cut / and Tractor / Tipper / manually or any means.....

4. Precaution measures during excavation:

5. Likely negative environmental impacts:

6. Restoration Plan - Trimming of slope / - Filling of quarry / - Need of check wall / Toe wall / Plantation / Benching etc.

7. Any special safety arrangement required:

8. Mitigation measures for negative environmental impacts:

9. Verification of Restoration Work as Planned by the Supervision Engineer.

Submitted by:

Checked by:

Approved by:

Note: The payment of each structure will be made only after filling of the data by the Contractor for Quarry Management and Restoration Plan. Final payment will be dependent on verification and approval by SC at the end construction of each respective structure.

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Selection Criteria of Borrow Pit Sites

1. Pits shall not be located in natural and design drainage areas /water bodies;
2. Pit should be avoided in land close to embankment (i.e. should be more than 1.5 m) and irrigated agricultural land;
3. In case of agricultural land depth of pit shall not exceed 45 cm;
4. In case of riverside, pit should be located at more than 15 m from toe of bank;
5. Avoid borrow pit in land within settlement areas, protected areas, forests, unstable site-hills, wetlands, stream and seepage areas, areas supporting rare plant/animal species
6. The clearing of trees and other vegetation shall be discouraging;

Potential Environmental Impact

7. Disruption of natural landscape and vegetation
8. Disturbance to natural drainage resulting ponding, water logging and water pollution.

Borrow Pit Operation / Restoration

9. Borrow pit areas shall be restored with adequate slope and cross drain at regular interval to facilitate drainage.
10. Stripped material shall be stored so as to not disrupt natural drainage
11. The ponding of surface water shall be prevented through adequate drainage.
12. Site shall be left in a stable condition without steep slopes.
13. Exposed area shall be planted with suitable vegetation

Design & Estimate of Borrow Pit

14. Using site selection and restoration criteria and the engineer shall specify borrow pit location in drawing (plan) and specification;
15. In case of additional pits required during construction the Contractor shall use the site selection and restoration criteria to select new pits with approval of the Engineer;
16. The cost of compliance with above requirement shall be included in Contractor's rate for supplying of materials;
17. The cost of mitigation measures and restoration plan will be prepared separately under EMP item.

Parameters and indicators for supervision/Monitoring:

18. The Engineer shall ensure that the borrow pits are operated and closed according to design;

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19. Implementation of erosion control work;
20. No evidence of water ponding, no increased visual turbidity in surface water;
21. Natural contoured and vegetation are restored;
22. Engineer's report on compliance of restoration work.

Guidelines for Spoil Mass Management

Selection of tipping sites:

1. Possible tipping site should be identified right from feasibility study / walkover survey phase and should be selected with details during detailed engineering / preparation of EMP
2. Following consideration will be made while selecting tipping sites:
 - a. Nearby barren land within RoW with flat/rolling terrain slope.
 - b. Can be used in making passing nays, extra widened sections etc.
 - c. For reclamation of public private/land
 - d. In building other community infrastructures like playground of school etc
 - e. If appropriate site is not found nearby spoil mass can be used for overlay over the existing road surface
3. Site should not be weak, fragile and unstable area susceptible to erosion and landslides and that will collapse by surcharge mass. Avoid wetland or other prohibited areas.

Potential Environmental Impact

4. Damage of vegetative cover with scouring of valley slope resulting in landslide and removal of vegetation and top soil causing slope instability.
5. Damage of private property, land, public infrastructures
6. Disruption of natural drainage system and water pollution.

Design & Estimate of tipping site

7. Tipping site should be located and shown in road plan inclusive of retaining and other protection structures;
8. There should be a column for calculation of surplus mass from excavation in Earthwork Calculation Sheet (see table below);
9. The quantities & haulage distance of spoil mass will be incorporated in detail quantity/cost estimate and Bo of works with detailing of means of transportation;
10. If any changes/revision needed Contractor will identify and submit the detail of tipping site for approval by Project Manager.

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11. Mitigation measures should be design & estimated for possible impact against disturbance to natural drainage system and other likely instability

Construction & Operation of tipping site:

- 12. Stones extracted during excavation should not be thrown away, but need to be stacked along not disturbing the road for future use;
- 13. Landfill is constructed using a series of small spoil benches to prevent slope overloading. Earth mass should be dumped and stacked in design slope of filling mass;
- 14. The dumped spoil mass will be protected using toe/check walls and exposed areas will be strengthened with application of bioengineering over it;
- 15. Disposal area should be levelled & compacted after disposal.

Parameters and indicators for supervision/Monitoring:

- 16. Stability of spoil area
- 17. No presence of slides, scouring, erosion, or destruction of public utilities and infrastructures
- 18. Vegetative cover is maintained – survival rate of plant.

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11.10 Annex 10: Example Outline for the ESMP implementation monthly report

- 1. INTRODUCTION**
 - 2. ENVIRONMENTAL SAFEGUARDS MANAGEMENT**
 - CAMP SITE CONSTRUCTION
 - AIR QUALITY
 - NOISE CONTROL
 - HYDROLOGY MANAGEMENT (CONTAMINATION & LEAKAGE CONTROL)
 - WASTE MANAGEMENT
 - BIODIVERSITY MANAGEMENT (include information on vegetation clearance/rehabilitation and unauthorized deforestation, wildlife incidents (collisions with vehicles, crossings, poaching and locations of such incidents)
 - BORROW PITS MANAGEMENT
 - 3. SOCIAL SAFEGUARDS MANAGEMENT**
 - LAND ACQUISITION
 - COMMUNITY ENGAGEMENT/ PROJECT LIASION COMMITTEE
 - GRIEVANCE REDRESS MECHANISM (GRM)
 - ACCOMODATION FOR CONTRACTOR PERSONNEL
 - INFLUX OF EXTERNAL PEOPLE INTO CAMP SITE
 - COVID-19, HIV/AIDS PREVENTION CAMPAIGNS
 - CONTRACTING OF LOCALS INLCUDING FEMALE
 - SOCIAL RESPONSIBILITY
 - 4. GENDER-BASED ISSUES**
 - SEA/ SH PREVENTION AND RESPONSE
 - CODES OF CONDUCT
 - 5. HEALTH & SAFETY MANAGEMENT**
 - TRAFFIC MANAGEMENT
 - ROAD ACCCIDENTS
 - SAFETY INDUCTIONS & USE OF PPE
 - WORK INCIDENTS
 - OCCUPATIONAL DISEASES
-
- | | |
|--------------------|--------------------------------------|
| ANNEX I – | E&S PHOTOGRAPHIC REPORT |
| ANNEX II - | CODES OF CONDUCT |
| ANNEX III - | HIV/AIDS PREVENTION CAMPAIGNS |
| ANNEX IV - | COVID-19 MITIGATION PLAN |