REPUBLIC OF MOZAMBIQUE

MINISTRY OF PUBLIC WORKS, HOUSING AND WATER RESOURCES,

URBAN WATER SECURITY PROJECT (P509890)

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

ESMF PREPARED FOR:	ESMF PREPARED BY:
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APRIL 2025

DOCUMENT CLEARANCE FORM

Name of Unit	Environmental Services
Document Title	Consultancy Services for Preparation of Environmental and Social Instruments for the Urban Water Security Project.
Project Name	Urban Water Security Project (P509890)
Contract Ref. Nº	**XXX**
Client Address	Fundo de Investimento e Património do Abastecimento de Água (FIPAG) Gabinete do Director Geral Attention: Mr. Mr. Sérgio Cavadias - Director General Av. Filipe Samuel Magaia, Nº 1291, PO.Box. 917 Maputo-Mozambique Telephone: +258 21 308 840 / 21 315 529 / 21 318 815 Email: nticongolo@fipag.co.mz

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Current Version		Draft Report	☑	Final Version	☐

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ABBREVIATIONS AND ACRONYMS

BoQs	Bill of Quantities
BMMP	Biodiversity Management and Monitoring Plan
CBOs	Community-based Organizations
C-ESMPs	Contractor Environmental and Social Management Plans
CRE	Contractor to Supervision Consultants
EDM	Electricidade de Moçambique
E&S	Environmental and Social
ESF	Environmental and Social Framework
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESRC	Environmental and Social Risk Classification
ESSF	Environmental and Social Screening Form
ESS	Environmental and Social Standards
DINAB	Environmental National Directorate
EPDA	Environmental Pre-Viability Study
EHS	Environmental, Health, and Safety
ESHS	Environmental, Social, Health, and Safety
FM	Financial Management
GBV	Gender-based Violence
GBV	Gender-based violence
GoM	Government of Mozambique
GMMA	Greater Maputo Metropolitan Area
GMMR	Greater Maputo Metropolitan Region
GHG	Greenhouse Gas
GRM	Grievance Redress Mechanisms
GRS	Grievance Redress Service
IWRM	Integrated Water Resources Management
ILO	International Labour Organization
IPF	Investment Project Financing
KBA	Key Biodiversity Areas
LMP	Labor Management Procedure
LRPs	Livelihood Restoration Plans
MAAP	Ministry of Agriculture, Environmental and Fisher
MOPHRH	Ministry of Public Works, Housing and Water Resources
M&E	Monitoring and Evaluation
ANAC	National Administration of Conservation Areas
DNASS	National Directorate of Water Supply and Sanitation
EN1	National Road Number 1
OHS	Occupational Health and Safety
O&M	operation and management
PAP	Project Affected Person
PforR	Program for Results
PIAP	Performance Improvement Action Plan
PBGs	Performance-Based Grants
PWP	Private Water Provider
PTU	Project Technical Units
DPTA	Provincial Directorates of Land and Environment
ANAC	National Administration of Conservation Areas
ARA	Regional Water Administrations
RAP	Resettlement Action Plans
RCA	Root-cause Analysis
SCAP	Safeguards Corrective Action Plan
SH	Sexual Harassment

STDs	Sexually Transmitted Diseases
SER	Simplified Environmental Report
SEP	Stakeholders Engagement Plan
UWSP	Urban Water Security Project
UoF	Utilities of the Future
AIAS	Water and Sanitation Infrastructure Administration
AURA	Water Regulatory Authority
WRM	Water Resources Management
FIPAG	Water Supply Investment and Asset Fund
WTP	Water Treatment Plant

EXECUTIVE SUMMARY

Introduction and Project Activities. The World Bank will be supporting Water Supply Investment and Asset Fund (FIPAG) and other beneficiary entities (DNASS, ARA-Sul, AURA) in implementing the Urban Water Security Project. The objective of the project is to increase access to improved water supply services and to improve the sustainability of water supply services in selected cities. The project will support the following activities: (i) Support a combination of interventions from source to tap to strengthen the climate resilience and sustainability of urban water supply and sanitation services; (ii) Providing strategic support to ARA-Sul to fulfill its mandate, covering investments that will contribute to strengthening of climate-informed water planning and allocation; (iii) Expansion of water treatment and transport capacity, as well as downstream investments to expand the distribution network following the key principles for climate-resilient water infrastructure design; (iv) Provided to regional utilities to cover the costs of connecting low-income households; Completion of the ongoing Fecal Sludge Treatment Plant in Tete; (v) Improvement of performance and efficiency of water supply services in the Greater Maputo Metropolitan Area (GMMA); (vi) Supporting the acquisition of pre-paid meters to be installed for consumers segments with high water bill and low billing collection ratios; (vii) Development of the legal framework for the integration of PWP services; (viii) Strengthening of management and ARA-Sul's financial sustainability, capacity building, including in climate-risk prevention.

The project activities will take place in the Greater Maputo Metropolitan Area (GMMA), Xai-Xai city, Chibuto district in Gaza province, Inhambane and Maxixe cities in the province of Inhambane. Specific locations of subproject activities are not known at this stage, because details of subproject design as well as the specific locations are being refined based on the submissions under the PforR being transformed into IPF for the proposed Urban Water Security Project.

This Environmental and Social Management Framework (ESMF) has been prepared to identify the potential environmental and social risks and impacts of proposed Project activities and propose suitable mitigation measures to manage these risks and impacts. It maps out the Mozambique laws and regulations and the World Bank policies appliable to the Project, and describes the principles, approaches, implementation arrangements, and environmental and social mitigation measures to be followed.

Potential E&S Risks and Impacts. The potential environmental and social risks for project activities are identified as: Disturbance of local ecosystems and biodiversity, including water and soil pollution risk; Temporary economic displacement, potential exclusion of vulnerable groups, community safety concerns, labor-related issues. This may be related to civil works from the construction of new wellfields and main pipeline in the surroundings of Xai-Xai and Inhambane cities; Risks of gender-based violence (GBV) and sexual harassment (SH). During construction works the risk would be higher in activities carried out in densely populated areas, namely in peri urban and rural areas, mainly in areas with higher levels of poverty. The risk could also be higher in activities requiring larger number of non-local workers; Health and safety risks during civil construction works, which may involve the use of heavy construction machinery, the transport of large quantities of supplies and equipment, concrete works, trenching and other excavations, may result in potentially significant risks to the health and safety of construction workers; Pollution caused by civil construction works. The activities under component 2 will involve civil works that include pipelaying and large-scale infrastructure construction, including heavy machinery, transport of materials and equipment, and concrete batching; Biodiversity risks of pipe bridge river crossings. This will be related to the new pipe bridges planned to replace the temporary crossings of the Incomati River and Umbeluzi River which may result in habitat damage, temporary sediment generation in the river channels and potential for other pollution during piling, or as a result of hydrocarbon spills.

Proposed Generic Mitigation Measures. These risks will be managed and mitigated through the application of the following generic mitigation measures: Detailed alignment to take account of local groundwater conditions, e.g. by avoiding areas with springs or where the water table is shallow; Sizing of culverts shall be done to ensure hydraulic transparency and take into account floods events; Avoid removing material below the water table; Installation of sewage treatment to meet required standards; hygiene training for workforce, at all construction installations, such as camps, workshops, active construction sites; Development and implementation of a waste management plan as part of site specific ESIA and CESMP; Control of construction vehicle movements and prohibit vehicle washing in watercourses, and similar practices; Emergency response plans during construction (contractors and local authorities) and operation (local authorities); Dust control and suppression measures such water sprinkling during dry spells especially around inhabited areas, residential areas, schools and health facilities; Use of authorized contractors for hazardous and any other waste which the project cannot dispose of safely; Rehabilitation of cleared areas with native species, and ecosystem restoration in habitats of conservation value, using specialist advice and input, backed up by a long-term monitoring programme and corrective actions as necessary; During preparation of the site specific ESIAs, undertake mapping of gazetted limits of all forest reserves, key biodiversity areas (KBA) and IBA, wetlands, national park and game reserves to avoid all encroachments and vegetation removal including opening borrow pits and quarry sites in such habitats; Development of an Employment Plan, with clear employment requirements and procedures for the construction workforce in line with guidance provided in the project LMP; Development & implement Health & Safety Management Plan, Traffic Management Plan as part of ESIA and C-ESMP.

Implementation Arrangements. The project will be implemented through various agencies under the coordination of the Ministry of Public Works, Housing, and Water Resources (MPWHWR). The primary implementing agencies include FIPAG, DNASS, AURA, AIAS, and ARA-Sul, working in collaboration with relevant stakeholders such as Municipalities, Local Authorities, Ministry of Health, and Provincial Directorates of Land and Environment (DPTA). The implementation of the project involves clearly defined roles and responsibilities among various entities to ensure effective management of environmental and social risks, as specified in section 11.1.

Monitoring and Reporting. FIPAG will put in place adequate institutional arrangements, systems and resources to ensure effective monitoring of the ESMF, and the relevant plans associated with implementation of the Project. The goal of monitoring activities is to ensure that component activities comply with the plans and procedures laid out in ESMF. Monitoring responsibilities and inspection activities will be carried out by FIPAG, and other beneficiary institutions who will administer the overall project-related environmental and social monitoring and implementation as laid out in this ESMF through their Environmental and Social specialists.

Budget for Implementation of the ESMF. The implementation of the Environmental and Social Management Framework (ESMF) for the Mozambique Urban Water Security Project requires adequate funding to support essential activities, including capacity building, stakeholder engagement, monitoring, and reporting. The estimated budget for implementing the ESMF covers various activities required to manage environmental and social risks effectively. The total cost is 2,460,000 United States Dollars.

A separate Stakeholder Engagement Plan (SEP) has been prepared for the Project, based the World Bank's Environmental and Social Standard 10 on Stakeholder Engagement.

SUMÁRIO EXECUTIVO

Introdução e atividades do projeto. O Banco Mundial apoiará o Fundo de Investimento e Património para o Abastecimento de Água (FIPAG) e outras entidades beneficiárias (DNASS, ARA-Sul, AURA) na implementação do Projecto de Segurança Hídrica Urbana. O objectivo do projecto é aumentar o acesso a melhores serviços de abastecimento de água e melhorar a sustentabilidade dos serviços de abastecimento de água em cidades seleccionadas. O projecto apoiará as seguintes actividades: (i) Apoiar uma combinação de intervenções desde a fonte até à torneira para reforçar a resiliência climática e a sustentabilidade dos serviços urbanos de abastecimento de água e saneamento; (ii) Prestar apoio estratégico à ARA-Sul para cumprir o seu mandato, abrangendo investimentos que contribuam para o reforço do planeamento e da atribuição de recursos hídricos com base no clima; (iii) Expansão da capacidade de tratamento e transporte de água, bem como investimentos a jusante para expandir a rede de distribuição seguindo os princípios-chave para a concepção de infra-estruturas hídricas resilientes ao clima; (iv) Fortalecer os serviços públicos regionais para cobrir os custos de ligação das famílias de baixos rendimentos; Conclusão da Estação de Tratamento de Lamas Fecais em curso em Tete; (v) Melhoria do desempenho e da eficiência dos serviços de abastecimento de água na Área Metropolitana de Maputo; (vi) Apoiar a aquisição de contadores pré-pagos a instalar em segmentos de consumidores com faturas de água elevadas e baixos índices de cobrança; (vii) Desenvolvimento do quadro jurídico para a integração dos serviços de provedores privados de água; (viii) Reforço da gestão e da sustentabilidade financeira da ARA-Sul, formação, incluindo na prevenção dos riscos climáticos.

As actividades do projecto terão lugar na Área Metropolitana de Maputo, na cidade de Xai-Xai, no distrito de Chibuto, na província de Gaza, e nas cidades de Inhambane e Maxixe, na província de Inhambane. Os locais específicos das actividades do projecto não são conhecidos nesta fase, porque os detalhes do desenho dos subprojectos, bem como os locais específicos, estão a ser refinados com base nas submissões ao abrigo do PforR que está a ser transformadas em IPF para o proposto Projecto de Segurança Hídrica Urbana.

Este Quadro de Gestão Ambiental e Social (QGAS) foi preparado para identificar os potenciais riscos e impactos ambientais e sociais das actividades propostas do Projecto e propor medidas de mitigação adequadas para gerir esses riscos e impactos. Mapeia as leis e regulamentos de Moçambique e as políticas do Banco Mundial aplicáveis ao Projecto e descreve os princípios, abordagens, acordos de implementação e medidas de mitigação ambiental e social a seguir.

Potenciais Riscos e Impactos A&S. Os potenciais riscos e impactos ambientais e sociais para as actividades do projecto são os seguintes: Perturbação dos ecossistemas locais e da biodiversidade, incluindo o risco de poluição da água e do solo; Deslocamento económico temporário; Possível exclusão de grupos vulneráveis; Preocupações com a segurança da comunidade, e questões laborais. Isto pode estar relacionado com obras civis decorrentes da construção de novos campos de furos e da conduta principal nos arredores das cidades de Xai-Xai e Inhambane; Riscos de violência baseada em género (VBG) e de assédio sexual (AS). Durante as obras de construção, o risco seria maior nas actividades realizadas em zonas densamente povoadas, nomeadamente em zonas periurbanas e rurais, principalmente em zonas com níveis de pobreza mais elevados. O risco pode também ser maior em atividades que exijam um maior número de trabalhadores não locais; Os riscos para a saúde e a segurança durante as obras de construção civil, que podem envolver a utilização de máquinas pesadas de construção, o transporte de grandes quantidades de material e equipamento, obras de betão, abertura de valas e outras escavações, podem resultar em riscos potencialmente significativos para a saúde e segurança dos trabalhadores da construção; Poluição provocada por obras de construção civil. As atividades da componente 2 envolverão obras de construção civil que incluem a colocação de condutas e a construção

de infraestruturas em grande escala, incluindo maquinaria pesada, transporte de materiais e equipamentos e dosagem de betão; Riscos para a biodiversidade em travessias de rios através de pontes tubulares. Isto estará relacionado com as novas pontes de condutas planeadas para substituir as travessias temporárias dos rios Incomati e Umbeluzi, que podem resultar em danos no habitat, geração temporária de sedimentos no rio e potencial para poluição durante o empilhamento ou como resultado de derrames de hidrocarbonetos.

Medidas Genéricas de Mitigação Propostas. Estes riscos serão geridos e mitigados através da aplicação das seguintes medidas genéricas de mitigação: Alinhamento detalhado para ter em conta as condições locais das águas subterrâneas, evitando zonas com nascentes ou onde o lençol freático é pouco profundo; O dimensionamento dos canais deverá ser feito de forma a garantir a transparência hidráulica e a ter em conta os eventos de cheias; Evitar remover material abaixo do nível freático; Instalação de tratamento de esgotos para cumprir os padrões exigidos; formação em higiene para os trabalhadores, em todas as instalações de construção, tais como acampamentos, oficinas, estaleiros de construção ativos; Desenvolvimento e implementação de um plano de gestão de resíduos como parte de um EIAS e PGAS específicos do local; Controlar a circulação de veículos de construção e proibir a lavagem de veículos em cursos de água, e práticas similares; Planos de resposta a emergências durante a construção (empreiteiros e autoridades locais) e operação (autoridades locais); Medidas de controlo e supressão de poeiras, como a aspersão de água durante os períodos de seca, especialmente em áreas habitadas, áreas residenciais, escolas e unidades de saúde; Utilização de empreiteiros autorizados para resíduos perigosos e quaisquer outros resíduos que o projeto não possa eliminar em segurança; Reabilitação de áreas desmatadas com espécies nativas e restauração de ecossistemas em habitats de valor de conservação, recorrendo a aconselhamento e contributo de especialistas, apoiados por um programa de monitorização a longo prazo e acções correctivas, conforme necessário; Desenvolvimento de um Plano de Emprego, com requisitos e procedimentos claros de emprego para a força de trabalho da construção, de acordo com as orientações fornecidas nos PGMO do projecto; Desenvolvimento e implementação do Plano de Gestão de Saúde e Segurança, Plano de Gestão de Tráfego como parte da EIAS e C-PGAS.

Arranjos de Implementação. O projecto será implementado através de várias agências sob a coordenação do Ministério das Obras Públicas, Habitação e Recursos Hídricos. As principais agências de implementação incluem o FIPAG, a DNASS, a AURA, a AIAS e a ARA-Sul, trabalhando em colaboração com as partes interessadas relevantes, como os municípios, as autoridades locais, o Ministério da Saúde e as Direções Provinciais de Terras e Ambiente (DPTA). A implementação do projecto envolve funções e responsabilidades claramente definidas entre várias entidades para garantir a gestão eficaz dos riscos ambientais e sociais, conforme especificado na secção 11.1.

Monitoria e Relatórios. O FIPAG implementará arranjos institucionais, sistemas e recursos adequados para garantir a monitoria eficaz do QGAS e dos planos relevantes associados à implementação do Projecto. O objectivo das actividades de monitorização é garantir que as actividades dos componentes estão em conformidade com os planos e procedimentos estabelecidos no QGAS. As responsabilidades de monitoria e as actividades de inspecção serão realizadas pelo FIPAG e outras instituições beneficiárias que administrarão a monitoria e a implementação ambiental e social geral relacionadas com o projecto, conforme estabelecido neste QGAS através dos seus especialistas ambientais e sociais.

Orçamento para a Implementação do QGAS. A implementação do Quadro de Gestão Ambiental e Social (QGAS) para o Projecto de Segurança Hídrica Urbana requer o financiamento adequado para apoiar as actividades essenciais, incluindo a capacitação, o envolvimento das partes interessadas, a monitorização e a elaboração de relatórios. O orçamento estimado para a implementação do ESMF abrange diversas atividades

necessárias para gerir eficazmente os riscos ambientais e sociais. O custo total é de 2.460.000 dólares americanos.

Envolvimento das Partes Interessadas (SEP). Foi elaborado para o projecto um SEP separado, com base no Padrão Ambiental e Social 10 do Banco Mundial sobre o Envolvimento das Partes Interessadas e Divulgação de Informação.

1 INTRODUCTION

1.1 Background of the Project

Mozambique has achieved significant economic growth since the end of the civil war in 1992, but important challenges still affect the country's prospects. Many people in Mozambique still lack access to clean, piped water. While access to clean water is a sector goal, expected to lead to significant economic and human development gains, the water sector lacks sufficient funding and capacity to meet this goal by 2030.

The socioeconomic gains of water investments in Mozambique are evident in the main urban centres, where more than two decades of investment have resulted in increased access to water supply from 60% of people in 2000 to close to 90% in 2020, which has contributed to a reduction in child mortality from 95 (in 1 000 children) in 2003, to 69 in 2011, as well as a reduction in the prevalence of diarrheal diseases in children under five from 13,4% in 2003 to 9,9 per cent in 2018. This also translates into increased economic growth prospects, contributing to poverty eradication by increasing productivity with higher agriculture and industrial production and yields, time-saving and fewer sick workers, and reduced expenditure on healthcare and treatment. Further, the gains in the water sector have contributed to narrowing the gap in gender equality and have led to the direct creation of jobs.

At a sectoral level, a substantial proportion of the Mozambican urban population continues to lack consistent access to safely managed drinking water services. While 90% of urban households have access to clean water, supply is often intermittent and many people do not have piped water to their premises, relying on a public standpipe or on neighbors' supply. At present, none of the 21 main cities have a continuous water supply service, with only seven systems reaching the target service level of 16 hours of supply per day, defined by the Water Regulatory Authority (AURA) as the threshold for good performance. Public drinking water services managed by state agencies are also not expanding at the same speed as the growth of urban settlements, which are growing at 4,4% per year, with the shortfall being taken up by Private Water Provider (PWP), mainly in peri-urban areas. In the Greater Maputo region, over 40% of the urban population is supplied by PWP, most of whom are unlicensed and abstract water from poorly drilled, uncontrolled boreholes that put aquifers at risk of salinization and contamination. The quality of water delivered is also not properly monitored. In addition, PWP charges a tariff averaging 51% higher than the public utility, meaning that the poor living in the peri-urban areas pay more for drinking water services.

The GoM is committed to increasing investments to secure water to meet increasing urban demand, expand treatment and distribution capacity, promote efficiency in service delivery, and foster sustainability, with the aim of delivering safely managed water to all. Nevertheless, increased investment in the urban water supply system has not always translated into sustained improved services. Poor performance in the public water sector is hampering the national effort to improve supply services. Average hours of service in the main urban systems have declined in recent years together with the reduced recovery of costs for services from water users. Water quality in both surface and groundwater sources of supply is also declining, which further threatens urban water security. Although part of this decline in service can be attributed to underfunding of the sector and rapid population growth in the main cities, it indicates that a more sustainable expansion of the water supply service demands a paradigm shift from concentrated investments in infrastructure to a coupling of investments with institutional strengthening that includes incentives for service performance improvement.
It is in this context that the Government of Mozambique (GoM), through its implementing agencies, is transitioning the Mozambique Urban Water Security Project from a Program-for-Results (PforR) under P178653 to an Investment Project Financing (IPF) under P509890. The project aims to enhance access to improved water supply services and improve service delivery capacity in selected cities. This transition requires full compliance with the World

Bank's Environmental and Social Framework (ESF), necessitating the preparation of key Environmental and Social (E&S) instruments, on which this Environmental and Social Management Framework (ESMF) is part of.

1.2 Purpose of the ESMF

The project activities will take place in selected cities of the South Provinces of Mozambique, namely Maputo, Gaza (Xai-Xai and Chibuto), Inhambane (Inhambane city and Maxixe), and the Greater Maputo Metropolitan Region (GMMR). Specific locations and/or detailed scope of subproject activities are yet to be defined, as their final selection will be determined later after undertaking specific subproject detailed engineering studies during the implementation phase. It is anticipated that both positive and negative environmental and social impacts will be generated that will affect the nearby biophysical and social environment. To preclude and manage the anticipated environmental and social risks and impacts of the project, applicable environmental and social (E&S) management instruments shall be prepared. However, given that precise designs and exact extent of the proposed project activities are to be defined, it is challenge to identify specific risks and impacts of the project activities and manage them in the context of traditional Environmental and Social Impact Assessment (ESIA). This Environmental and Social Management Framework (ESMF) has therefore been prepared to guide in undertaking the site specific ESIAs and respective ESMPs during the implementation phase of the project. At this stage, the ESMF identifies generic potential environmental and social risks and impacts of proposed Project activities and proposes generic standard E&S measures for assessing, avoiding, mitigating, and managing these during the planning/pre-construction, construction, and operation and management (O&M) stages of the subprojects. It maps out the laws and regulations of the Republic of Mozambique and the World Bank policies and standards appliable to the Project, and describes the principles, approaches, and implementation arrangements to be followed. The overall goal of the ESMF is to ensure that decision making in subsequent stages of the project is informed and influenced by environmental and social considerations.

When the designs and exact scope of each subproject under the Urban Water Security Project (UWSP) are defined and detailed, the project implementers (DNAAS, AURA, ARA-Sul, FIPAG), will develop site specific Environmental and Social Impact Assessments (ESIA) and Resettlement Action Plans (RAP), as required, in accordance with the Government of Mozambique environmental and social assessment regulation, and the World Bank's Environmental and Social Framework, including applicable World Bank Group Environmental Health and Safety Guidelines, as specified in chapter 3 of this ESMF.

1.3 Objective and Scope of the ESMF

The main objective of the Environmental and Social Management Framework (ESMF) is to provide general procedures, guidelines, and methodologies as a framework for the assessment, management, and monitoring of environmental and social impacts of the Urban Water Security (UWS) project. The ESMF will help to establish a mechanism to systematically identify, predict, evaluate, and manage beneficial and adverse environmental and social impacts of the project activities, design enhancement measures for beneficial impacts, and recommend mitigating measures for adverse impacts to comply with the requirements of National policies, laws and regulation, and the World Bank Environmental and Social Framework. The specific objectives of the ESMF are to:

- Establish clear procedures and tools (including checklists) for environmental and social screening, impacts assessment, planning, review, approval, implementation, and monitoring of subprojects to be financed under the project.
- Present the policy, legal and institutional framework related to the environmental and social context applicable to the proposed project and its potential subprojects.

- Outline the process to identify potential environmental and social risks and impacts associated with the proposed subprojects activities and specify a methodology for preparing the environmental and social management and monitoring plans.
- Describe the implementation and institutional arrangements and specify appropriate roles and responsibilities for managing environmental and social impacts over the project implantation period and indicate implementation strategies of the major issues outlined in this ESMF.
- Outline the necessary reporting procedures, for managing and monitoring environmental and social concerns associated with the proposed subprojects.
- Determine the capacity building components (including training and technical assistance) for the successful realization of the provisions stated in this ESMF and establish the Project funding required to implement the ESMF requirements.
- Introduce an environmental and social due diligence process to present methodologies, instruments, procedures, and role and responsibilities for environmental and social management and provide practical information resources for implementing the ESMF.

The ESMF also serves as an instrument to guide and to be used for E&S management by project implementers (DNAAS, AURA, ARA-Sul, FIPAG) and other relevant key stakeholders, such as Ministries Departments, Regional and District Authorities, Non-Governmental Organizations, and Community Based Organizations and Local Traditional Leaders.

2 PROJECT DESCRIPTION

2.1 Project Components

The project development objective is to increase access to improved water supply services; and improve service delivery capacity in selected cities. The project is structured in four components, namely (1) Access to sustainable and climate resilient water and sanitation services; (2) Improvement of performance and efficiency of services; (3) Water sector development support to improving the enabling environment for PSP; and (4) Project Management Support.

Component 1 (C1). Access to sustainable and climate resilient water and sanitation services (US$70 million). C1 will support a combination of interventions from source to tap to strengthen the climate resilience and sustainability of urban water supply and sanitation services that are regularly affected by climate-change-exacerbated droughts and floods events, contributing to the implementation of priority climate adaptation investments enacted in the country's NDC, specifically under the water resources and resilient water supply and sanitation systems strategic area. C1 is structured in five sub-components, specifically:

(a) **Reducing climate hazards impacting water supply infrastructure and services through Integrated Water Resources Management (IWRM) and watershed management**, including providing strategic support to ARA-Sul to fulfill its mandate, covering investments that will contribute to strengthening of climate-informed water planning and allocation, the enhancement of water quality through improved watershed management that reduces climate-change-exacerbated water source contamination, assurance of water availability to meet urban demand via source diversification and demand conservation.

(b) **Expansion of access to climate-resilient water supply services**, including investments for the expansion of water treatment and transport capacity, as well as downstream investments to expand the distribution network following the key principles for climate-resilient water infrastructure design, with key water treatment plant (WTP), pumping stations, and bridge crossings for main pipes designed to

withstand and be installed above historic flood levels, following the protocol for climate-proofing of water supply infrastructure and service.[1]

(c) **Output-based payments for low-income household connections**, building on the successful experience of output-based payments implemented in WASIS II (P149377) and aims at increasing access to piped water connections for low-income households in the main urban centers. Under this component, output-based grant payments are to be provided to regional utilities to cover the costs of connecting low-income households.

(d) **Improvement of the quality of services provided by PWPs** through grants for upgrading PWP water supply infrastructure to comply with technical standards, with best practices for climate-proofing of operations and service, and to enable them to distribute bulk water supply purchased from the regional utilities.

(e) **Access to safely managed sanitation** financing the completion of the ongoing Fecal Sludge Treatment Plant in Tete currently supported by the MUSP (P161777) that is closing in September 2025.

Component 2 (C2). Improvement of performance and efficiency of services (US$60 million). C2 will support the improvement of performance and efficiency of water supply services in the Greater Maputo Metropolitan Area (GMMA) and Southern Region provided by AdRMM and AdRS respectively, allocating one-third of the project investments to finance activities, through a grant mechanism for water utilities, that will contribute to lower energy consumption and greenhouse gas (GHG) emissions, specifically NRW reduction and energy efficiency. C2 is structured in fours sub-components, specifically:

(a) **Performance improvement for the service area of the GMMA**. Carrying out a performance-based program of activities defined under a Performance Improvement Action Plan (PIAP) for the GMMA, which include investments for: (i) NRW reduction led by the utility not covered by the NRW Performance-Based Contract (PBc) (2.c); (ii) improving energy efficiency; (iii) improving the collection ratio and the operational cost coverage ratio; (iv) digitalization of operations; (v) training and capacity building in key areas for the utilities; 6) women empowerment within; (vi) improving utility's governance and accountability; (vii) establishment of communications platforms for information sharing on water quality and services and timely resolution of complaints; and (vii) implementation of the turn-around plans derived from the Utilities of the Future (UoF) assessment.

(b) **Performance improvement for the Southern Region service area**. Carrying out a performance-based program of activities defined under a PIAP for the Southern Region, which include investments for: (i) co-management contract for NRW reduction; (ii) improving energy efficiency; (iii) improving the collection ratio and the operational cost coverage ratio; (iv) digitalization of operations; (v) training and capacity building; (vi) women empowerment; (vii) improving utility's governance and accountability; (viii) establishing of communications platforms for information sharing on water quality and services and timely resolution of complaints; and (ix) implementation of the turn-around plans derived from the UoF assessment.

(c) **NRW PBc for GMMA**. PBc for NRW reduction to be signed between FIPAG and a contractor to be selected on a competitive basis to implement investments to reduce NRW, including investments to reduce both physical and commercial losses, management technologies, and capacity-building programs, in the service areas of GMMA and the Southern Region.

(d) **Revolving fund for a prepaid meter program**. Supporting the acquisition of pre-paid meters to be installed for consumers segments with high water bill and low

1 WBG. 2020. Resilient Water Infrastructure Design Brief. Link: http://hdl.handle.net/10986/34448

billing collection ratios to support the desired increasing in operational costs coverage based on receivables.

Component 3 (C3). Water sector development support to improving the enabling environment for PSP (US$10 million). C3 will support several critical actions underpinning the operationalization of a sector reform effort led by the Government of Mozambique (GoM) to improve the enabling environment for PSP and to achieve universal and equitable access to safe and affordable drinking water. This component will be divided into three sub-components, specifically:

(f) **Improvement of the enabling environment for Private Sector Participation,** which will support the development of the legal framework for the integration of PWP services into the regulated service provision (the development of technical standards, including best practices for climate-proofing of operations and service, and bulk water supply models), including the licensing and monitoring of their water quality and services, and the dissemination and training of licensing authorities.

(g) **Strengthening the regulatory role of AURA** to promote efficiency and inclusiveness in the provision of services by extending them to the poorest segments of the population and reducing the risk of investment in the sector through economic regulation that guarantees tariffs that fully cover operating costs, debt service, a return on private investment and ensure service to poor segments of the population.

(h) **Strengthen ARA-Sul capacity to manage water resources** including licensing of water users, strengthening of management and ARA-Sul's financial sustainability, capacity building, including in climate-risk prevention, management and response, institutional development support, and the implementation of a women empowerment program.

(i) **Institutional development support for FIPAG.** This sub-component will support FIPAG in managing the process of restructuring the urban water supply sector, including strengthening it to be an institution focused on mobilizing funds for investment in the sector, migrating from its previous focus on operations, and to strengthen private sector participation and private capital mobilization for urban water supply.

(j) **Preparatory studies for the next generation of WSS investments** will allocate resources to support the preparation of the future generation of priority investments in WSS.

Component 4 (C4). Project Management Support (US$6 million). will support technical assistances and incremental project operation costs for the two Project Implementation Units (PIU) based on FIPAG and DNAAS, and the Project Technical Units (PTU) based on ARA-Sul and AURAS. It will also provide additional support for the environmental and social compliance.

Project management support comprises technical assistance and incremental operating costs to ensure fiduciary compliance including financial management (FM), procurement and environment and social safeguards, monitoring and evaluation (M&E) for. This component will support necessary equipment (e.g. computers, software and other goods), capacity building (training), and incremental staff to allow the project implementing unit to carry out their responsibilities.

(a) **Technical Assistance and Project Management Support for FIPAG** to ensure technical and fiduciary compliance, including financial management (FM) and procurement, monitoring and evaluation (M&E). This component will support necessary equipment (e.g. computers, software and other goods), capacity building (training), travel, logistics and incremental staff to allow the PIU to carry out their responsibilities related to the project.

(b) **Technical Assistances and Project management support for DNAAS** to ensure technical and fiduciary compliance, including financial management (FM) and procurement, monitoring and evaluation (M&E). This component will support necessary equipment (e.g. computers, software and other goods), capacity building (training), travel, logistics and incremental staff to allow the PIU to carry out their responsibilities related to the project. It will also support technical assistances and incremental operating costs for the implementation two PTUs based on ARA-Sul and AURAS.

(c) **Support for the Environmental and Social Compliance** to ensure compliance with the Environmental and Social Commitment Plan, the satisfactory implementation of the Stakeholders Engagement Plan (SEP), and the Environmental and Social Management Framework, the Resettlement Policy Framework, including the compensation of people affected by the project (PAP) interventions.

2.2 Project Activities Involving Works

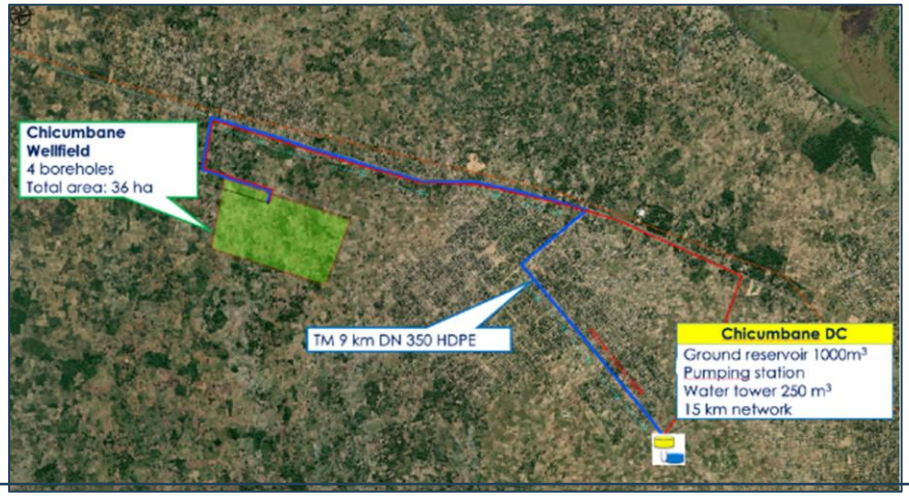
The project activities involving work financed are presented in table 1 below. The figure 1 below shows typical construction activities expected.

Table 1 - Project activities involving works in each component

Component	**Typology of civil work**
Component 1. Access to sustainable and climate resilient water and sanitation services	✓ Expansion of water treatment and transport capacity. ✓ Pumping stations, and bridge crossings for main pipes. ✓ Completion of the ongoing Fecal Sludge Treatment Plant in Tete. ✓ Incomati River pipe bridge ✓ Umbeluzi River pipe bridge ✓ Sabié Water Treatment Plant extension ✓ Pumping stations, transmission main lines and distribution networks. ✓ Water intra-household connections: Connection to secondary water provision network and laying of pipes to the bathroom, kitchen, sink, laundry or reserve tank. ✓ Improvement of the primary water supply infrastructure including civil and electromechanical works.
Component 2. Improvement of performance and efficiency of services	✓ Acquisition of pre-paid meters to be installed for consumers segments. ✓ Primary and secondary network renewal, mesh closure, and auxiliary channel renewal. ✓ Pump adjustments, reduction of rounds, precise flow and pressure measurements, installation of monitoring equipment, fuel savings and vehicle maintenance, energy shifting or temporary shift of energy consumption, replacement of generator sets, renovation of engines, renovation of medium-low voltage boards, distributed self-generation.

Nkomati road bridge (location for the pipe bridge)

Umbeluzi River pipe bridge (proposed pipe bridge location)



Proposed locations for wellfields, mainlines and distribution centres in Xai Xai

Figure 1 - Example of locations for the works to be supported by the project

2.3 Project Location

The project investments will target the Southern Region of Mozambique, covering three of the country's provinces most affected by water scarcity and droughts, Maputo, Gaza and Inhambane, and the Greater Maputo Metropolitan Region (GMMR). The map below shows the location of the targeted project areas.

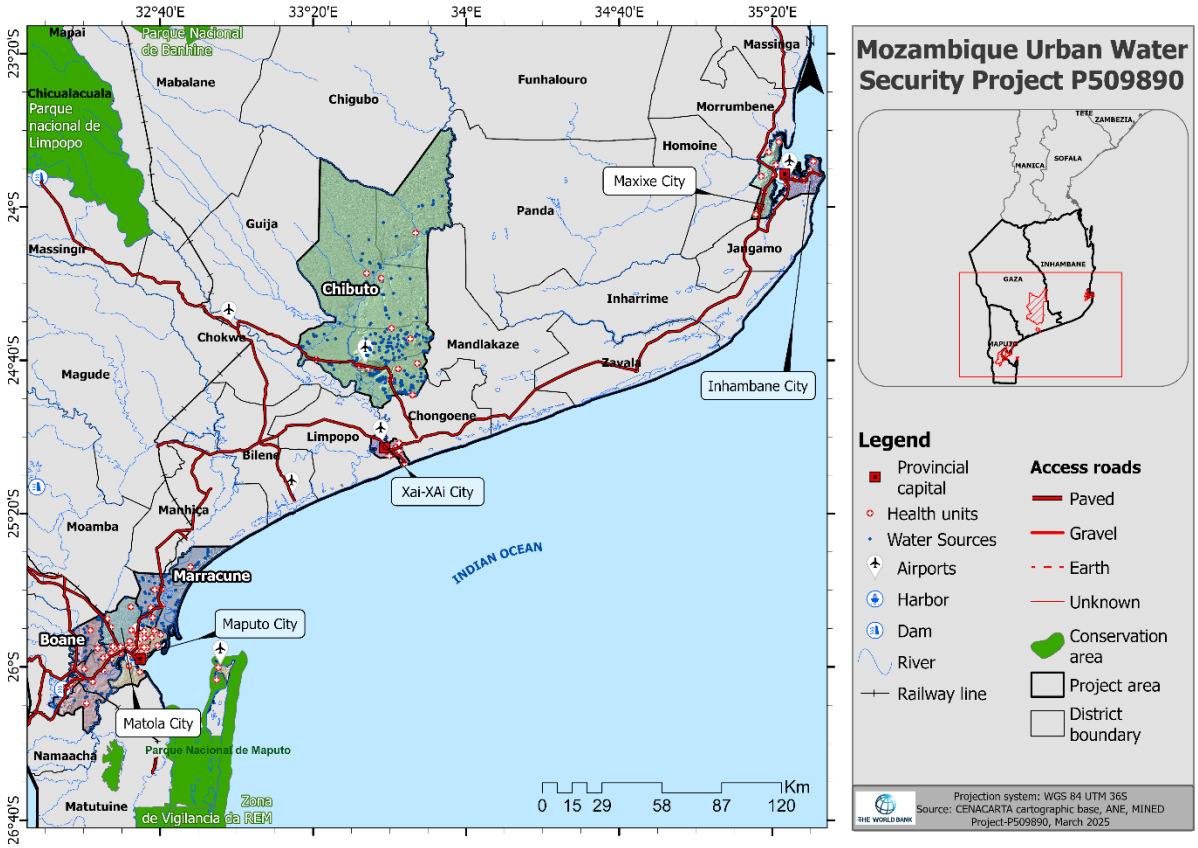


Figure 2 - Project Targeted Area

2.4 Implementation Arrangements

The project will be implemented by the Ministry of Public Works, Housing and Water Resources (MOPHRH) at the central level through several of its subordinated institutions. FIPAG, DNAAS, AURA, and ARA-Sul will be responsible for implementing various components, consistent with their respective mandates. Specifically, FIPAG will lead the implementation of water supply infrastructure and performance improvement activities, while DNAAS will oversee activities related to private water providers (PWPs), regulatory strengthening activities benefiting AURAS, the project's water resources management (WRM) and watershed components benefiting ARA-Sul.

A Project Implementation Unit (PIU) will be hosted by FIPAG, which is mandated under Government Decree 72/1998 to plan and manage the design and execution of water supply infrastructure for primary systems. This makes FIPAG the most suitable agency to deliver the project's water supply components. DNAAS will host a second PIU, while the beneficiary institutions, AURA and ARA-Sul, will each host Project Technical Units (PTUs) responsible for implementing institution-specific activities, under the coordination and fiduciary oversight of the PIU. DNAAS will make use of the PIU currently serving the Rural and Small Towns Water Security Project (*Água Segura*, P173518).

3 POLICY, LEGAL, AND ADMINISTRATIVE FRAMEWORK

3.1 Relevant National Laws and Regulations

Since the nineties, Mozambique has been undertaking an extensive legal and institutional reform to enhance the country's environmental and social management capabilities towards sustainability. This ongoing reform has included:

- Adherence to and adoption of a series of international and regional environmental protection and conservation conventions and protocols.
- Approval of a significant set of legislation with direct and indirect implications for environmental and social protection.
- Creation of specific public institutions or strengthening existing institutions dedicated to both environmental and social management.

The table below provides a summary of applicable national E&S Legal and Institutional Framework while the detailed write-up and review of the same is provided under Annex 8:

Table 2 - Applicable National E&S Legal and Institutional Framework in Mozambique

Legal And Institutional Framework	Relevance	Responsible Institution
National Environmental Policy (Resolution No. 5/95)	Yes	Ministry of Agriculture, Environmental and Fisher
Environmental Law (Law No. 20/97)	Yes	Ministry of Agriculture, Environmental and Fisher
Regulation for Environmental Impact Assessment - ESIA (Decree No. 54/2015, of December 31st)	Yes	Ministry of Agriculture, Environmental and Fisher
Regulation on the Environmental Audit Process (Decree No. 25/2011)	Yes	Ministry of Agriculture, Environmental and Fisher
Regulation for Environmental Inspections (Decree No. 11/2006)	Yes	Ministry of Agriculture, Environmental and Fisher
Procedures on Environmental Licensing (Ministerial Diploma No. 129/2006)	Yes	Ministry of Agriculture, Environmental and Fisher
Public Participation Methodologies and Procedures (Ministerial Diploma No. 130/2006	Yes	Ministry of Agriculture, Environmental and Fisher
Environmental Law (Law No. 20/97)	Yes	Ministry of Agriculture, Environmental and Fisher

Regulation for Environmental Standards and Effluent Emission (Decree No. 18/2004 (as amended by Decree No.67/2010)	Yes	Ministry of Agriculture, Environmental and Fisher
Water quality for Human Consumption (Ministerial Diploma n. º180 / 2004)	Yes	Ministry of Public Works, Housing and Water Resources
Water Policy (Resolution No. 46/2007)	Yes	Ministry of Public Works, Housing and Water Resources
Water User Use (Law No. 16/91)	Yes	Ministry of Public Works, Housing and Water Resources
Environmental Quality Standards and Effluent Emissions Decree No. 18/2004	Yes	Ministry of Agriculture, Environmental and Fisher
Pollution Law (No. 20/97)	Yes	Ministry of Agriculture, Environmental and Fisher
Regulation on Urban Solid Waste Management (Decree No. 94/2014)	Yes	Ministry of Agriculture, Environmental and Fisher
Hazardous Waste Management (Decree No. 83/2014)	Yes	Ministry of Agriculture, Environmental and Fisher
Land Policy (Resolution No. 10/95)	Yes	Ministry of Agriculture, Environmental and Fisher
Land Use Rights (Law No. 19/1997)	Yes	Ministry of Agriculture, Environmental and Fisher
Protection Zones (Decree No. 66/98)	Yes	Ministry of Agriculture, Environmental and Fisher
Regulation for the Resettlement Process Resulting from Economic Activities (Decree No 31/2012)	Yes	Ministry of Agriculture, Environmental and Fisher
Technical Guideline of Planning and Implementation Process of Resettlement Plans (Ministerial Diploma No. 156/2014)	Yes	Ministry of Agriculture, Environmental and Fisher
Territorial Planning (Decree No. 23/2008)	Yes	Ministry of Agriculture, Environmental and Fisher
Guidelines for the Expropriation Process Resulting from Territorial Planning (Ministerial Diploma No. 181/2010)	Yes	Ministry of Agriculture, Environmental and Fisher

Cultural Heritage (Law No. 10/88)	Yes	Ministry of Agriculture, Environmental and Fisher
Biodiversity Protection (Law No. 20/97)	Yes	Ministry of Agriculture, Environmental and Fisher
Forest and Wildlife Protection (Law No. 10/99)	Yes	Ministry of Agriculture, Environmental and Fisher
Conservation Areas (Law No. 16/2014)	Yes	Ministry of Agriculture, Environmental and Fisher
Environment and Climate Change Policy-Briefs (2011)	Yes	Ministry of Agriculture, Environmental and Fisher
National Climate Change Adaptation and Mitigation Strategy (2012)	Yes	Ministry of Agriculture, Environmental and Fisher
Labour Law (23/2007)	Yes	Ministry of Labour, Employment, and Social Security
Employment and Labour Law (2021)	Yes	Ministry of Labour, Employment, and Social Security
Protection of Workers with HIV and AIDS (Law nº 5/2002)	Yes	Ministry of Labour, Employment, and Social Security
Labour Inspection (Decree nº 45/2009)	Yes	Ministry of Labour, Employment, and Social Security
Labour Relations (Law Nº 23 /2007)	Yes	Ministry of Labour, Employment, and Social Security
Family Law 10/2004 of 25 August 2004	Yes	Ministry of Gender, Children and Social Action
Law Nr 29/2009 on Domestic Violence 2009	Yes	Ministry of Gender, Children and Social Action
Decree 109/2014 on the Regulation of the Use of the Roads and their Protection Zones	Yes	Ministry of Agriculture, Environmental and Fisher
Land Law (Law 19/97)	Yes	Ministry of Agriculture, Environmental and Fisher
Decree No 43/ 2007 which approves the regulation of water licenses and concessions	Yes	Ministry of Public Works, Housing and Water Resources

3.2 World Bank Environmental and Social Standards (ESSs)

In 2018, the World Bank Group published its Environmental and Social Framework (ESF), comprising its Environmental and Social Vision and Policy for Investment Project Finance, complemented by ten Environmental and Social Standards (ESS). Additionally, the World Bank Group General Environmental, Health, and Safety Guidelines (EHSGs, 2007) outline general requirements and industry-specific guidelines to support sustainable development, poverty reduction, and shared prosperity. Guidelines particularly relevant to the Mozambique Urban Water Security Project are described in the table below.

Table 3 - World Bank Environmental and Social Standards and Relevance to the Project

#	World Bank Environmental and Social Standards	Description	Relevance
1	ESS1: Assessment and Management of Environmental and Social Risks and Impacts	The physical interventions planned under the Mozambique Urban Water Security Project mainly involve the construction, rehabilitation, and upgrading of water supply infrastructure, including treatment facilities, pipelines, distribution networks, and associated structures. These interventions will pose environmental and social risks and impacts, thereby necessitating a comprehensive environmental and social assessment as required by ESS1. Since the detailed designs and exact locations of sub-project activities are not fully defined at this stage, conducting site-specific Environmental and Social Impact Assessments (ESIAs) is not feasible. Therefore, an Environmental and Social Management Framework (ESMF) has been prepared to provide guidance for assessing and managing these potential risks and impacts. During project implementation, all sub-project activities will undergo environmental and social screening. When required, site-specific ESIAs or Environmental and Social Management Plans (ESMPs) will be prepared concurrently with the detailed engineering designs. These assessments will be integrated into civil works bidding and contracting documents. Contractors will be required to develop Contractor Environmental and Social Management Plans (C-ESMPs) before initiating construction activities, guided by the ESMF.	Yes
2	ESS2: Labor and Working Conditions	The Mozambique Urban Water Security Project will involve various categories of workers, including civil servants, direct workers, contract workers, and primary supply workers. Consequently, ESS2 is relevant and applicable to the project. To comply with ESS2 and Mozambican labour regulations, a Labor Management Procedure (LMP) has been prepared as part of this ESMF.	Yes

		The LMP outlines the management of labour throughout the project cycle, addressing: • Worker grievances through a dedicated GRM • Occupational Health and Safety (OHS) and environmental safety measures • Management of labour disputes • Prevention of discrimination against vulnerable groups • Elimination of child and forced labour • Preparation and implementation of Contractor's procedures addressing labour management risks, including security risks. Additionally, the SEA/SH risk assessment and action plan ensures that potential labour-related risks are thoroughly identified and addressed, promoting a safe and respectful working environment for all project personnel.	
3	ESS3: Resource Efficiency and Pollution Prevention	ESS3 is relevant to the Mozambique Urban Water Security Project as project activities will involve civil works that require sourcing construction materials, water, and energy. Although the precise quantities required are not yet determined, the ESMF provides generic guidelines and measures to ensure efficient resource use and pollution prevention. Detailed site-specific Environmental and Social Management Plans (ESMPs) will refine these measures, addressing specific resource efficiency and pollution management requirements, including sustainable sourcing of materials and appropriate waste management practices. Project investments will not involve the use of pesticides.	Yes
4	ESS4: Community Health and Safety	ESS4 is relevant to the Mozambique Urban Water Security Project as planned civil works may pose risks to surrounding communities. Identified risks include increased traffic hazards, exposure to hazardous materials, communicable diseases due to labor influx, restricted community mobility, dust and noise pollution, worker misconduct, GBV/SEA/SH risks, social conflicts related to labor influx, and potential security risks.	Yes

		The ESMF identifies these risks and provides generic mitigation measures consistent with the mitigation hierarchy. These include: • Managing access to project sites • Establishing community emergency response procedures • Implementing disease prevention and proper hazardous waste management practices • Adopting international good practices outlined by WHO and WBG guidelines • Specifying Codes of Conduct for workers' interaction with local communities A GBV/SEA/SH Risk Assessment and Action Plan is included within this ESMF. Site-specific ESMPs and C-ESMPs prepared by contractors during implementation will detail specific measures building upon those provided by the ESMF.	
5	ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	ESS5 is relevant to the Mozambique Urban Water Security Project because project activities involving construction and rehabilitation of water supply infrastructure could result in land acquisition and potential resettlement impacts. While the scale of land acquisition and resettlement is not expected to be large, temporary land acquisition may occur due to civil works, materials and machinery storage, worker camps, access roads, and sourcing of construction materials. Site-specific Resettlement Action Plans (RAPs) or Livelihood Restoration Plans (LRPs) will be developed by implementing agencies or contractors as needed to mitigate impacts related to temporary or permanent land acquisition and restrictions on land use or livelihoods. These plans will be prepared and implemented prior to commencement of civil works to ensure proper mitigation measures are in place, consistent with ESS5 requirements and Mozambican regulations.	Yes
6	ESS6: Biodiversity Conservation and	ESS6 is relevant as the Mozambique Urban Water Security Project activities may interact with sensitive ecological areas or protected zones. While major works will primarily occur within existing urban and peri-urban areas and their rights-of-way, potential impacts on biodiversity cannot be completely ruled out. Therefore, the project will ensure any	Yes

	Sustainable Management of Living Natural Resources	infrastructure or activities potentially affecting biodiversity are carefully managed in line with national regulations, the project's ESMF, and site-specific Environmental and Social Impact Assessments (ESIAs) and Environmental and Social Management Plans (ESMPs). As part of the ESMP, a Biodiversity Management and Monitoring Plan (BMMP) will be prepared and included in the Contractor Environmental and Social Management Plans (C-ESMPs). This ensures interventions do not result in significant adverse impacts on biodiversity and comply with the project's exclusion criteria as outlined in the List of Excluded Activities (Annex 10).	
7	ESS7: Indigenous Peoples/Historically Disadvantaged Traditional Communities of Sub-Saharan Africa	Not Applicable, since there are no communities considered within the context of Indigenous Populations.	No
8	ESS8: Cultural Heritage	ESS8 is considered relevant to the Mozambique Urban Water Security Project as project activities involve civil works that, despite focusing on existing infrastructure, could potentially impact cultural heritage resources if encountered unexpectedly. While currently no direct impacts on cultural heritage are anticipated, a Chance Find Procedure aligned with ESS8, and national regulations has been developed and included within the ESMF. This procedure will be adapted and detailed in site-specific ESIA/ESMPs and Contractor Environmental and Social Management Plans (C-ESMPs), ensuring adequate mitigation measures for any cultural heritage resources encountered during project implementation.	Yes
9	ESS9: Financial Intermediaries	ESS9 is not relevant/ applicable to this project since there is no Financial Intermediary involved in the project.	No
10	ESS10: Stakeholder Engagement and Information Disclosure	The project has conducted and will continue conducting extensive consultations throughout its preparation and implementation phases with various stakeholders including local communities, private businesses, government departments, internally displaced persons	Yes

		(IDPs), and host communities. A stakeholder consultation strategy has been developed to ensure meaningful engagement and feedback, particularly from marginalized groups. A participatory, inclusive, and culturally appropriate approach will be followed throughout the project lifecycle. A Stakeholder Engagement Plan (SEP) has been developed, detailing the type, frequency, and methods of consultations, mechanisms for information disclosure, and grievance redress mechanisms (GRM). The SEP outlines procedures for timely addressing of stakeholders' questions and complaints related to the project's environmental and social performance. The GRM, integrated within the ESMF, includes processes for the confidential and ethical resolution of grievances. The SEP will be regularly updated during project implementation to remain effective and relevant.	

3.3 Other Applicable Policies and Guidelines

The WBG General EHS Guidelines are applicable to the Mozambique Urban Water Security Project, addressing workplace safety, noise management, air and water quality control. These guidelines provide recommendations relevant during construction and operational phases, covering wastewater management, hazardous materials and waste management, occupational health and safety, community health and safety, traffic management, disease prevention, and construction-specific safety measures. These will guide the development of site-specific ESMPs. Key considerations include:

- Early identification of environmental, health, and safety (EHS) hazards and associated risks.
- Engagement of experienced EHS professionals.
- Training workers and nearby communities in effective emergency response.

3.3.1 Industry-Specific EHSGs

Industry-specific guidelines for Water and Sanitation infrastructure will apply, emphasizing efficient water resource use, proper wastewater management, and pollution prevention during project implementation. Relevant measures will be integrated into site-specific ESMPs to mitigate impacts on water resources and surrounding environments.

3.3.2 Community Health and Safety

The Mozambique Urban Water Security Project will ensure community safety during construction through traffic management plans, safeguarding community access to critical infrastructure, and implementing effective communication strategies to inform communities about project activities.

3.3.3 Use of Security Forces: Assessing and Managing Risks and Impacts, IFC 2017

Considering potential security risks in project implementation areas, particularly where social tensions might occur, the project will collaborate with local security personnel while ensuring adherence to international guidelines for responsible security management. A Security Risk Assessment has been undertaken, and a Security Management Plan will be prepared and implemented to effectively manage security-related risks, ensuring minimal impact on local communities.

3.4 Key Gaps Between World Bank E&S Standards and the Mozambique National E&S Framework

The Mozambique Urban Water Security Project is guided by both Mozambican national E&S regulations and the World Bank E&S Standards. While Mozambique's national framework aligns broadly with international standards, certain gaps exist, notably in areas such as stakeholder engagement, grievance redress mechanisms, labour management, and gender-based violence (GBV). These gaps necessitate supplemental measures detailed within this ESMF to ensure project compliance with the World Bank ESF and international best practices. Such measures include enhanced stakeholder consultation processes, robust grievance redress systems, comprehensive labour management procedures, and targeted strategies addressing GBV risks, thereby bridging these identified gaps effectively.

Table 4 - Comparison between Mozambican Legislation and World Bank E&S Standards

World Bank Ess Provisions	Mozambican Legislation	Gaps Identified	Mitigation Measures
ESS 1: Assessment and Management of Environmental & Social Risks and Impacts	EIA required by Environment Law Nº 20/97 of October 1st, and Decree Nº 54/2015. The Regulation for the EIA process classifies the projects into 4 Categories: A full EIA, A+ category subject to review by professional assessors) is also required for Category A. A Simplified EIA is required for category B and category C only a best practices guideline.	EIA required by Environment Law Nº 20/97 of October 7, and Decree Nº 54/2015 do not indicate the need to prepare ESMF for projects whose exact locations are not known. Only EIA process is discussed. Categorization does not follow the same criteria. Under the ESF: High, Substantial, Moderate and Low categories are used instead.	Despite minor differences there are no conflicts between the two sets of legislation. The Mozambican legislation does not have any instruments above the project. The instruments are only prepared for the implementation of the project that the site is known. Both systems have to be followed since they materially meet the same objective of requiring site specific assessment and mitigation measures proposed to inform the engineering designs before commencement of any civil works.
ESS2: Labor and Working Conditions	The Labor Law (23/2007) and Labor inspection (Decree nº 45/2009) mention the labor working conditions.	National legislation does not mention the need to develop Labor Management Procedures including the requirement for workers' Grievance Redress Mechanism to be established as early as possible in the project development phase.	Mozambique Urban Water Security Project has followed ESS2 and developed Labor Management Procedures with relevant provisions, including GRM and OHS Emergency Preparedness and Response to bridge the gaps.

ESS 3: Pollution Prevention and Resource Efficiency	Environmental Law (Law No. 20/97), Regulation for Environmental Standards and Effluent Emission (Decree No.67/2010), Pollution (Law No. 20/97), Regulation on urban solid waste management (Decree No. 94/2014), Hazardous Waste Management (Decree No. 83/2014) & NM339 Mozambican Standard are some laws and standard enacted to prevent environmental pollution from solid and liquid wastes, greenhouse gases and hazardous/toxic chemicals.	National legislation mostly focuses on pollution prevention and less on aspects of resource efficiency.	Mozambique Urban Water Security Project will follow provisions of ESS3 on resource efficiency including the project screening its activities for cumulative impacts can be assessed.
ESS 4: Community Health and Safety	The Labor Law (23/2007); Law No. 4/2007 of February 7; Protection of Workers with HIV/AIDS (Law nº 5/2002); and Labor relations (Law Nº 23 /2007) are national laws that promote safety, hygiene, health of workers and welfare of relatives of an employee when dead.	However, these laws do not focus much on community health and safety but that of workers	This gap has been addressed through the implementation of ESS4 which addresses potential risks and impacts on communities that may be affected by project activities, including training them on GBV/SEA/SH, Road Safety and communicable diseases (HIV, STIs).
ESS 5: Land acquisition, restrictions on land use and involuntary resettlement	Land use rights (Law No. 19/1997); Decree 31/2012; Technical Guideline of Planning and Implementation Process of Resettlement Plans (Ministerial Diploma No. 156/2014) & Guidelines for the Expropriation (Ministerial Diploma	There is no provision regarding the mitigation of resettlement in national legislation and where displacement is unavoidable, there is no room for development of a resettlement action plan. In addition, the national	These gaps will be addressed by the application of ESS5 provisions and standards in project implementation.

	No. 181/2010), these Mozambican legislations regulate the condition and the compensation mechanisms that govern the land expropriation or acquisition for public and economic projects.	legislation does not make any provision for consultation regarding resettlement sites.	
ESS 6: Biodiversity conservation and sustainable management of living resources	Biodiversity protection (Law No. 20/97); Forest and wildlife protection (Law No. 10/99); & Decree No. 12/2002 approves the regulation of Law 10/99 focus on protection, conservation, use, production of flora and fauna resources, and conservation areas, including forest and wildlife. Conservation Law No. 5/2017, Article 11 states that a public or private entity exploiting natural resources in a conservation area or its buffer zone must contribute financially to the protection of biodiversity in the conservation area in question, and compensate for impacts to ensure there is no net loss of biodiversity, Decree 89/2017, Articles 124 and 125 apply to compensation related to conservation and requirements for no net biodiversity loss.	There is no significant Gap between National and WB requirements.	Mozambique Urban Water Security Project will adopt the ESS6 principles, procedures and guidelines to ensure any impacts inflicted on biodiversity are compensated for to offset losses. It should follow the mitigation hierarchy: avoid, minimize, mitigate and offset.

ESS 8: Cultural heritage	Cultural Heritage (Law No. 10/88) & The National Heritage Protection Law (Law 10/88 of December 1988) focus on protection of material and non-material (antiques historical and cultural heritage) assets of the Mozambican cultural heritage.	The only gap that exists between the two legislations is that the national legislation does not focus on preparation of a chance finds procedure as part of the assessment instrument and does not focus on preparation of ESMF as a part of the assessment tool.	Mozambique Urban Water Security Project has followed provisions of ESS8 on preparation of a chance finds procedures and ESMF as part of the tools for assessment of cultural heritage materials.
ESS 10: Stakeholder Engagement and information Disclosure	Articles 13 (No. 3) and 24 (No 1) of the Land Law; Article 25 (No. 1) of the Land Law Regulations & Article 27 (Nos. 2 and 3); and the Land Legislation Supplement (1998)1 in Article 50, 51, 52, and 53 focuses on stakeholder engagement on development projects that have risks and impacts on project affected persons and also on other interested parties.	The only gap that exists between the two legal frameworks is the lack of GRM in national legislation useful to address grievances that may arise.	A GRM for this Project has been developed as part of the SEP and will be adopted for this Project.

4 ENVIRONMENTAL AND SOCIAL BASELINE DATA

4.1 Physical Environment

4.1.1 Maputo Metropolitan Area and Moamba Distric

The Maputo Metropolitan Area is characterized by a humid tropical climate, with two seasons (dry and rainy). The wet and rainy season is observed in the months of October to March and the dry season is observed from April to September. The average maximum annual temperature in recent years is 31°C, with a minimum of 13°C and a maximum of 40°C. Precipitation varies from 360mm to 900mm and average relative humidity varies from 77 to 80%. The land has been ravaged in recent years by the effects of climate change (flooding in the rainy season and drought in the hot season).

The soils are distinct because they are part of the terrestrial and coastal zone. In the terrestrial zone it is characterized by hydromorphic soils, with clay quartz deposits, rich in organic matter. The natural conditions of soil morphology are conducive to the development of phenomena such as erosion and are influenced by the increasing level of inhabitants, thus making the soil vulnerable.

The Maputo Metropolitan Area has an average altitude of 18 meters, with the minimum being 0 meters and the maximum being 85 meters. The main watercourses in the region are the Maputo, Umbelúzi, and Incomáti rivers (which are considered permanent, except for Umbelúzi).
Maputo comprises the coastal plain (with its small coastal dunes and river sediment deposit) and higher consolidated dune areas. Both are soft, low-density substrate and thus are highly conducive to erosion.

The land varies from dense settlement areas between Machava and Matola Gare to mainly agriculture fields and pasture areas for livestock from Matola Gare to Moamba. Comperatively undisturbed habitats are found along the Matola Riverbed from Pessene to Moamba.

The district of Moamba, a district of the Maputo Province in southern Mozambique, is crossed by the Incomáti River. Tributaries of Inkomati river in Mozambique are Massintonto and Sábiè located to the north of the district. The regime of these rivers is periodic with essentially pluvial feeding, originating a high flow in the rainy season from December to April, and, in Sábiè, from January to March, practically disappearing in the dry period. The Incomáti basin supplies the Sábiè-Incomáti irrigation system and the Corumana hydroelectric power station.
Five main soil units can be found in most parts of the district: the derived from Basalts; the Mananga with sandy cover of less than 25cm; the post-Mananga; the rolled Pebbles; and (v) alluvial from the rivers.

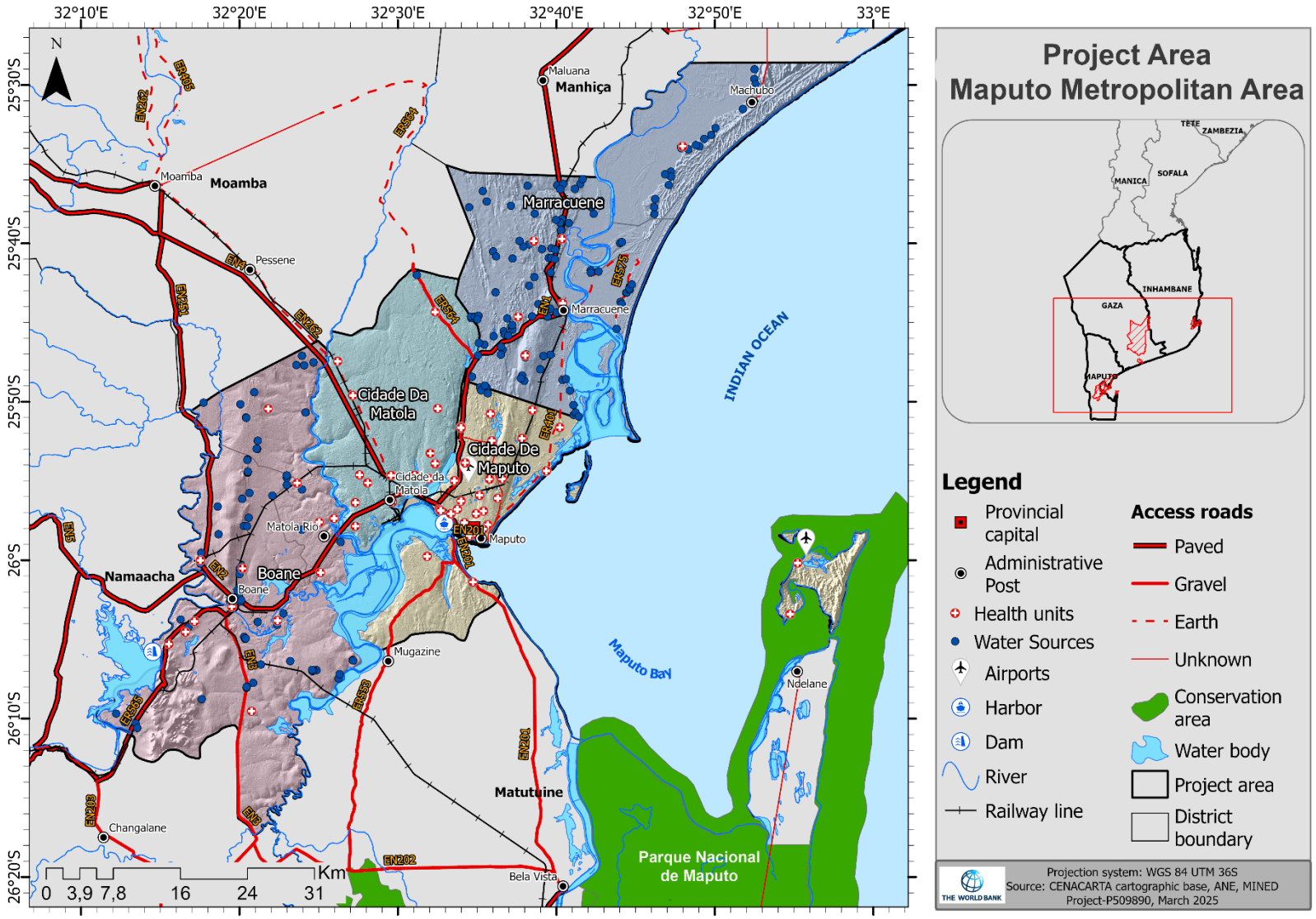


Figure 3 - Location of the Maputo Metropolitan Area and Moamba District

4.1.2 Xai-Xai City

The average monthly precipitation in Xai-Xai presents a relevant seasonal variation, with a wet period standing out between November and April, where a precipitation value equivalent to around 70% of the total annual precipitation value occurs, with January being the rainiest month with an average monthly precipitation of around 130 mm. There is, on the other hand, a dry period between May and October with average monthly rainfall of less than 50 mm, with the driest months being July and August with average monthly rainfall of around 13 mm. The average annual temperature is 22.9 ºC, with February being the hottest month (26.0 ºC) and July the coldest (19.1ºC). Xai-Xai is classified as having a moderate risk of being hit by a cyclone throughout the cyclonic period in Mozambique. Regarding the occurrence of floods, Xai-Xai presents a very high risk, as well as a very high risk of droughts.

Xai-Xai is located in the area of the country's great coastal plains, with the altitude increasing gently from the coast to the interior, interrupted by the valley of the Limpopo River and its tributaries. It has maximum altitudes of less than 200 m. The coastal zone is dominated by coastal dune sands and coastal sandstone with recent alluvium, while the interior is occupied by inland dunes of aeolian red sand. The valley of the Limpopo River and its tributaries are dominated by recent alluvium.

The predominant soils are sandy, followed by alluvial soils. There are also mananga soils in association with sandy soils. Along the Limpopo River valley the soils are essentially alluvial soils.

In terms of hydrology, a large international river stands out, which is the Limpopo River with 2 important tributaries (Lumane and Munhuana). There are also many coastal lagoons (Maie, Xipete, Sauce) and inland lagoons (among other Sacativa and Pave). All secondary rivers are seasonal. In terms of hydrogeology, the aquifer formations in Xai-Xai are generally of moderate productivity and the waters are of good quality.

4.1.3 Chibuto District

The district is approximately 5,700 km2 and is part of Gaza Province, and has six (6) Administrative Posts, namely, Malehice, Godide, Alto-Changane, Changanine, Tchaimite and Chibuto-Sede.

The district's climate is dry tropical, with average annual temperatures above 25°C. A small portion in the South (Malehice Administrative Post) shows a moderately warm climate, with average annual temperatures below 25°C. Annual rainfall varies on average between 400 and 600 mm in most of the district, being greater than 700 mm south of the city of Chibuto. In hot weather, relative humidity varies from 60 to 80%. Due to its location, the district is susceptible to extreme weather events such as droughts and cyclones, the most frequent being drought.

The main rivers are the Changane River, which runs through the district along its entire length in a northwest-southwest direction. In addition to this, there are its tributaries, namely the Sanguate River in the North, which borders the Chigubo District, and the Nandjote and Piane Rivers. A small portion of the district, in its extreme South, on the border between the Districts of Chibuto and Chókwe, is crossed by the Limpopo River. The most important lagoons include Bambeni, Nhangule; Linguazi; Zeng; Nunguane and Marilele.

The district is on an irregular plain, with altitudes below 100 meters and small elevations that reach between 100 and 200 meters. Two types of soil are predominant, namely clayey and sandy loam. The vegetation is open (savannah), with a predominance of micaias and tambeiras.

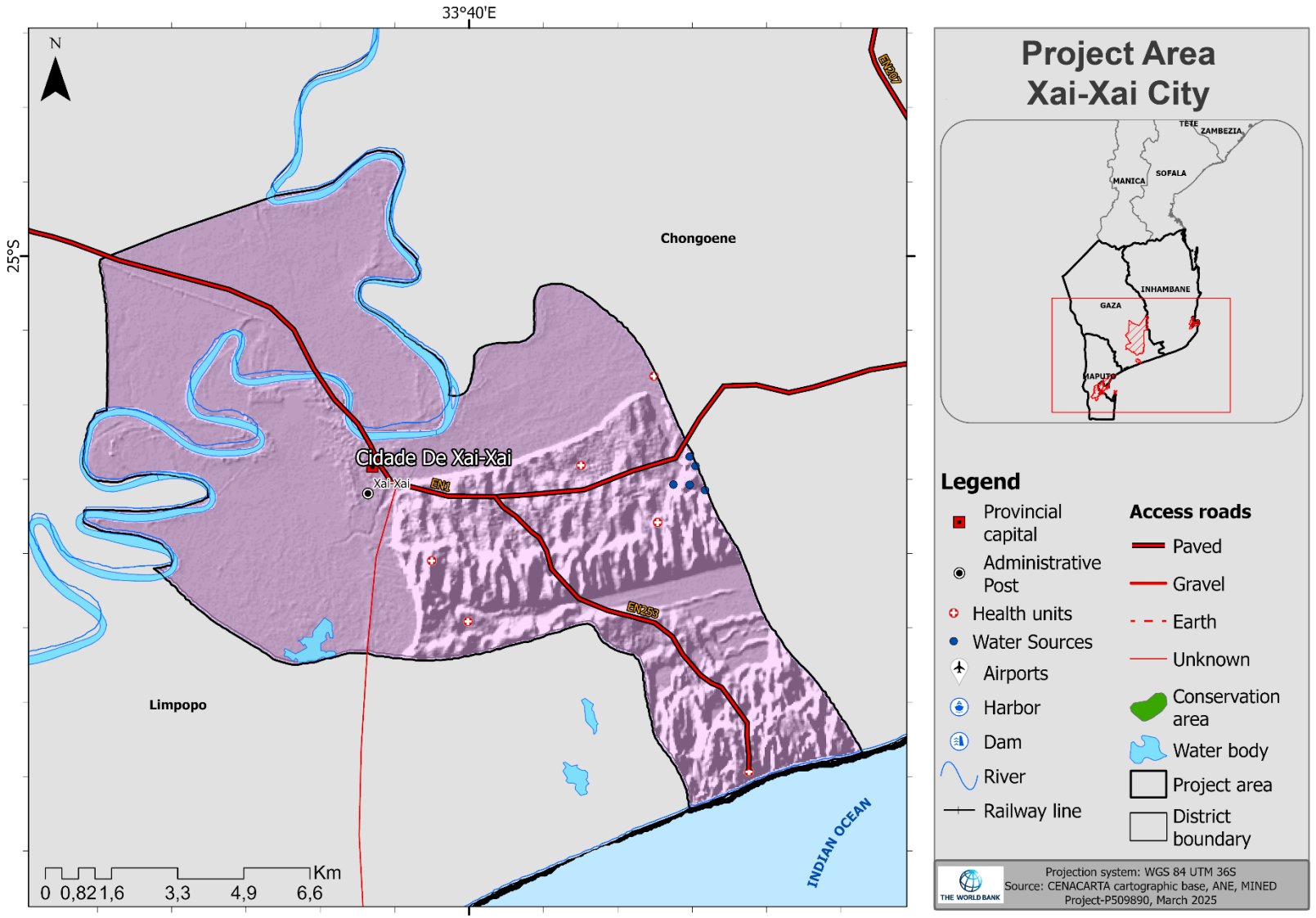


Figure 4 - Location of the Xai-Xai City

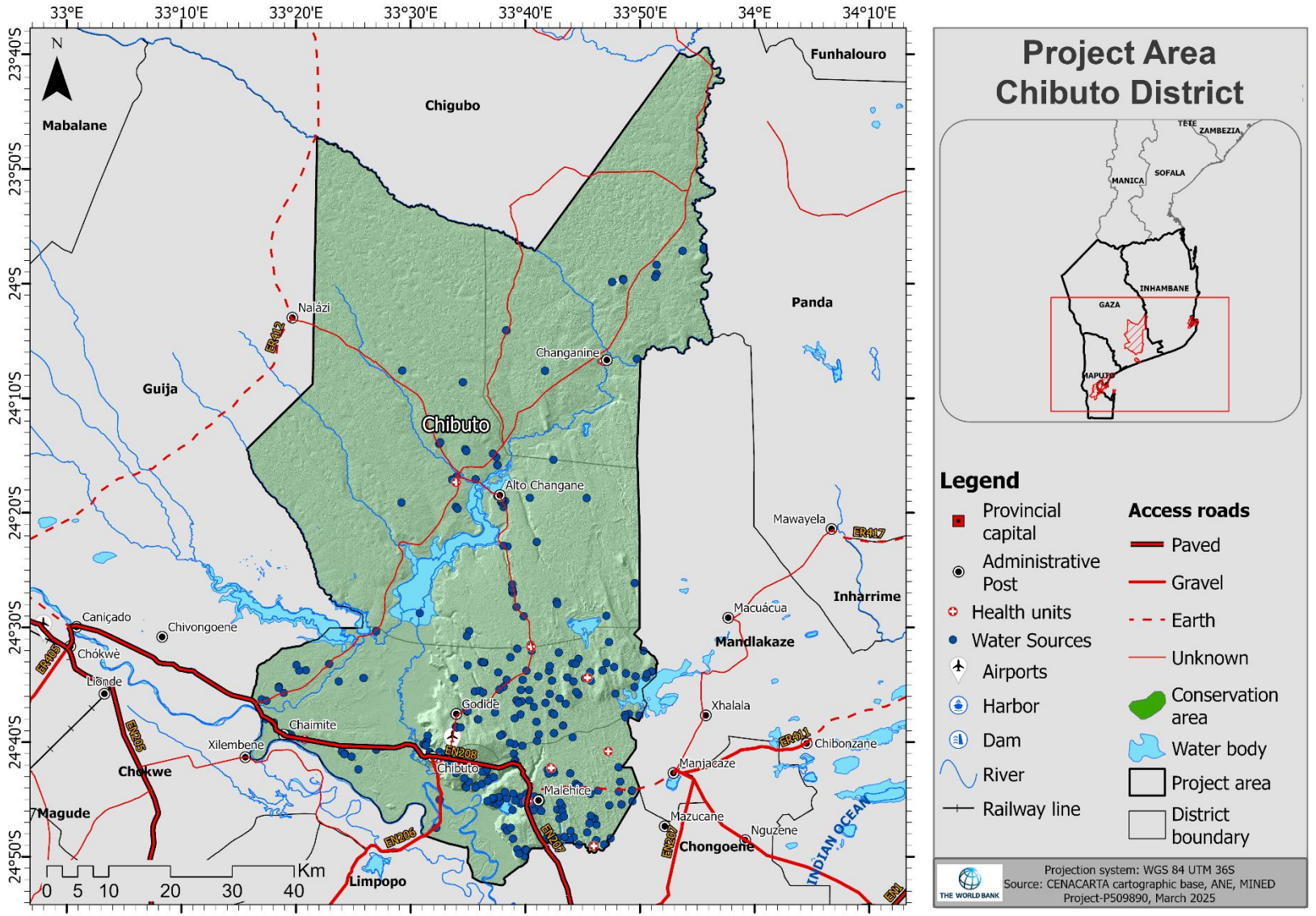


Figure 5 - Location of the District of Chibuto

Geology consists of undifferentiated deposits, alluvium, along the Changane River; and terraces in the Southeast of the district. There are patches of mineralized sands northeast of the city of Chibuto, as well as sand for civil construction in Chaimite. There are also accumulation plains formed by clayey and alluvial-proluvial materials, and low plains of fluvial-marine origin, while the eastern part is delimited by marine accumulation plains.

Along the Changane River there are valley bottoms and slopes with rocky terraces and others with thin alluvium. In the North of the district, the soils are clayey alluvial soils from Mananga with a sandy covering of variable thickness; and along the Changane River, the soils are deep clayey alluvium. The extreme southeast is composed of very deep orange and yellow sandy soils, and hydromorphic sandy soils of the dune phase.

4.1.4 Inhambane City

The municipality of Inhambane is in the southern region of Mozambique, in the southeastern part of the province of Inhambane, occupying an area of 195 km², which makes up 0.3% of the total territory of the province.

The climate of the city of Inhambane is humid tropical and the average annual temperature varies between 20.3°C and 26.9°C, with the minimum values recorded in July and the maximum in January. However, along the coast the climate of the municipality of Inhambane is tropically wet, with average temperatures ranging from 25°C in the hot and moist season at 20ºC in the fresh and dry season. The winds reach 5 to 8 km/h maximum, except when there are critical climate events, such as cyclones, raising this speed for winds that range from 75 to 140 km/h. The morphology of the Province of Inhambane in general and the municipality of Inhambane is associated with the Cycle of Congo and is essentially dominated by sediments of the tertiary and quaternary. The municipality of Inhambane is, in general, a flattened area, essentially in its western route to the bay where altitudes vary among weak to moderate (10-20m). To the south of the urban area there are steep slopes and, maintaining the same direction, some dune elevations appear, but of little expression, not exceeding 34 m.

The Municipality of Inhambane has approximately 90% sandy soil and another 10% are sandy-clayey soils found in low-lying areas and riverbanks. Sandy soils are less fertile, susceptible to erosion and have low water retention capacity, while sandy-clay soils are more fertile, not susceptible to erosion and have good water retention capacity.

4.1.5 Maxixe City

The Municipality of Maxixe is made up of 5 localities, namely Nhaguiviga, Mabil, Chambone, Nhabanda and Bembe. These are subdivided into 30 neighborhoods. There are also 6 autonomous neighborhoods, that is, which do not belong to any locality, namely: Macuamene, Macupula, Malalane, Nhamaxaxa, Nhambiho and Rumbana.

Maxixe is characterized by a humid tropical climate. The average annual temperature varies from 20.5°C to 26.9°C, with the maximum average occurring in January and the minimum in July. The average maximum temperature varies between 24.8ºC and 30.9ºC and the average minimum is between 15.7ºC and 22.8ºC. The average annual rainfall is approximately 965mm. The period of greatest rainfall is from December to March, with the minimum recorded in January. Relative humidity reaches its minimum in October, at 74%, and its maximum in June, at 79%.

The city of Maxixe is bordered to the east by Inhambane bay, and there is also the Nhanombe River, which is a constant-flowing river. The soil is made up of fine sands with low fertility and water retention, although there are some areas where the soil is fertile.

There are practically no species of natural vegetation, with only plant references consisting of coconut trees, cashew trees, mango trees, mainly in the interior areas and some low vegetation consisting of herbs and shrubs only during the fallow period.

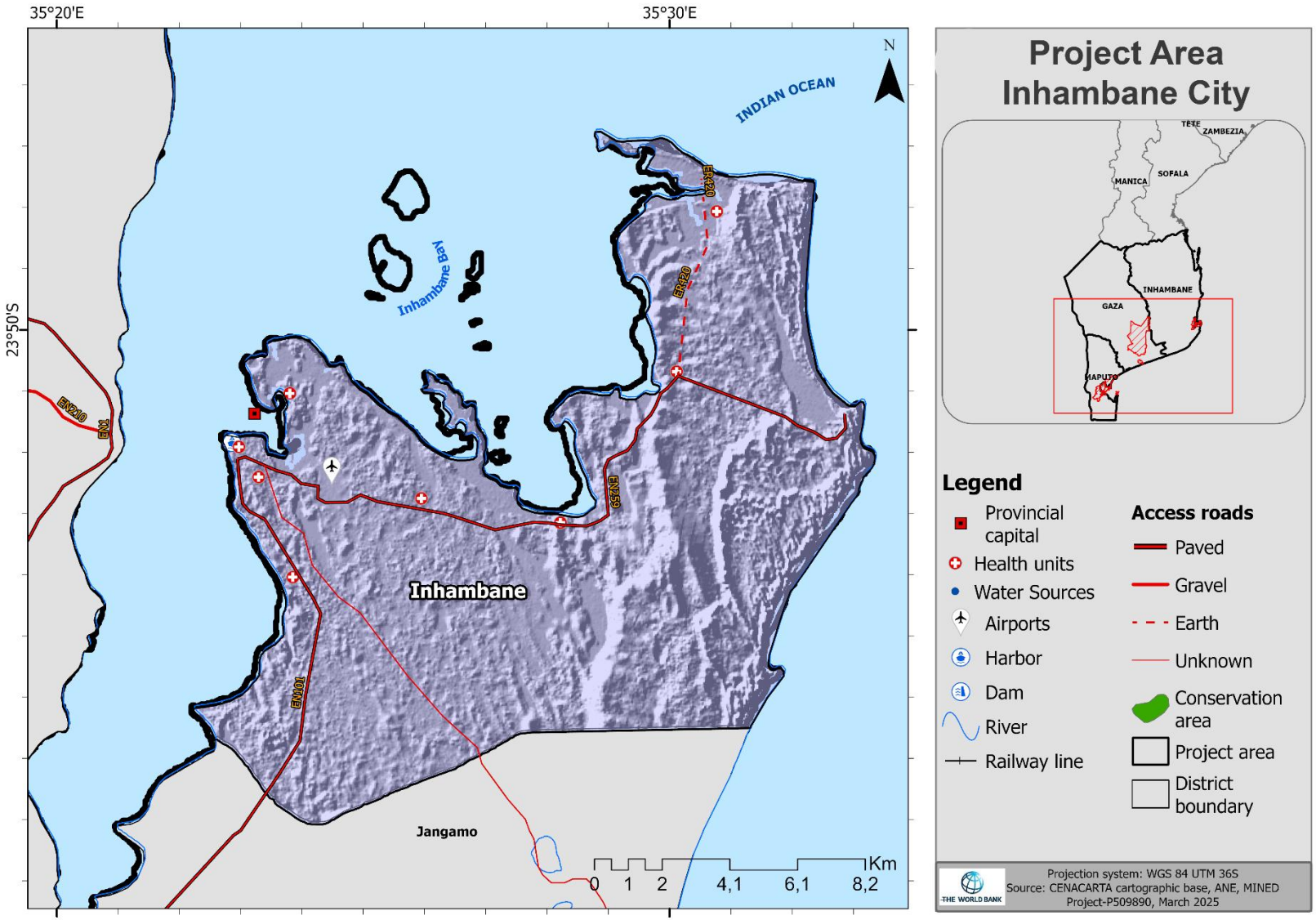


Figure 6 - Location of the Inhambane City

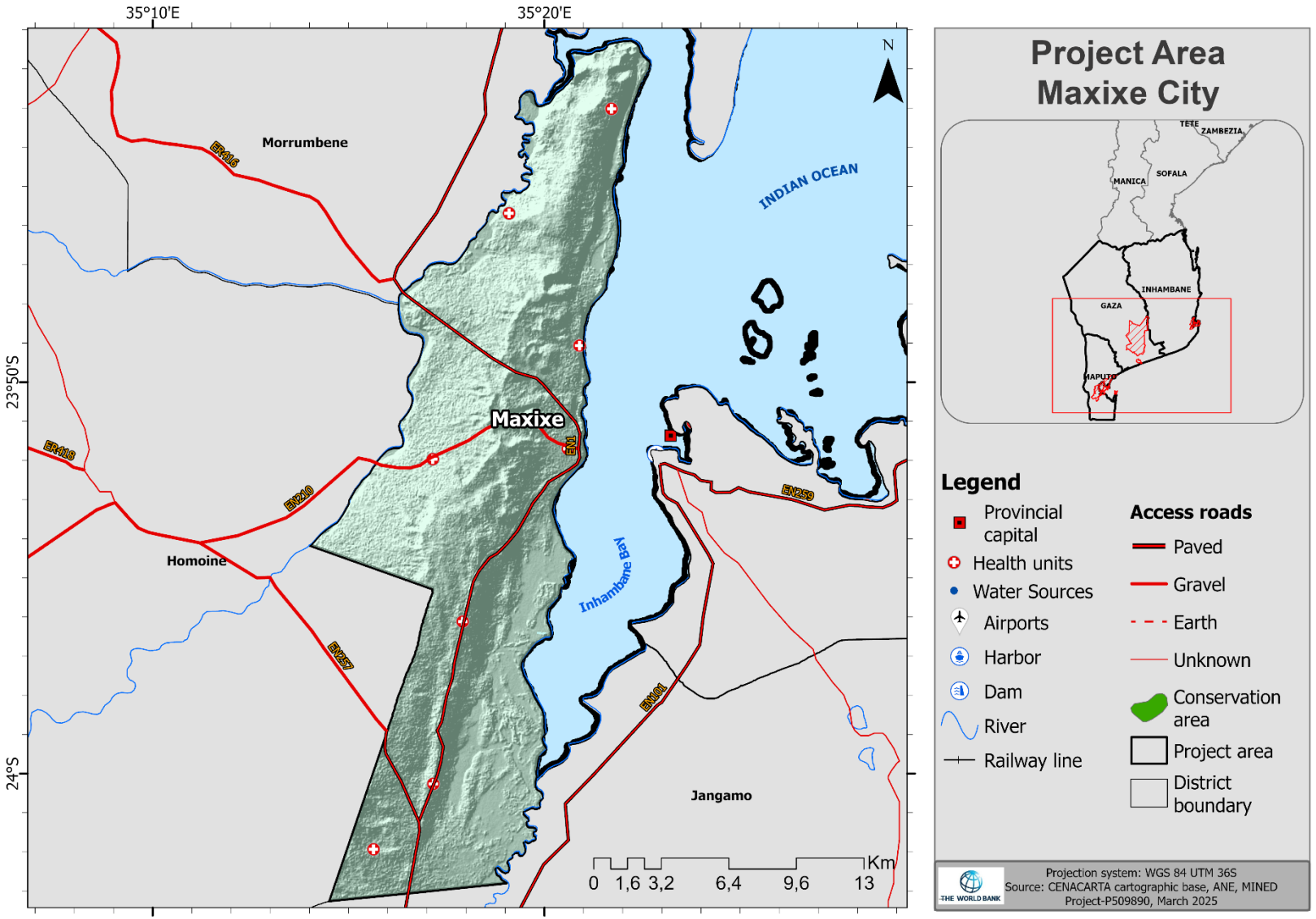


Figure 7 - Location of the Maxixe City

4.2 Biological Environment

4.2.1 Maputo Metropolitan Area and Moamba Distric

The City of Maputo is characterized by the presence of vegetation and fauna both in the land and coastal areas. On land, the original flora and fauna of the Maputo city region and its surroundings have been profoundly and irreversibly altered by human occupation, and all existing taxonomic categories have been reduced and transformed by human settlement. Among them, species of high commercial value and rare species are almost non-existent (both in the flora and fauna components). The predominant species are generally trees with economic value (fruit trees, shade trees, soil protection, among others). The fauna is dominated by domestic species, and, in some cases, the presence of snakes can be observed, although infrequently.

In the coastal area, mangrove vegetation predominates, with special biological and ecological value for the city of Maputo. The main species of mangrove vegetation include Avicennia marina, Rhizophora mucronata and other species. The density of this ecosystem has been strongly influenced by human pressure. Another important ecosystem is the seagrass meadows that occur in different parts of the bay and serve as habitat for various marine species (fish, crustaceans, bivalves, birds and mammals such as dugongs).

The city of Matola is characterized by the presence of vegetation and fauna, both in the terrestrial and coastal areas, presenting various types of vegetation and fauna. However, the original characteristics of these areas have been significantly altered, with some exceptions in the coastal zone. The predominant species are typically trees with economic value, including fruit trees, shade trees and those used for soil protection, such as Albizia, Afzelia, Sclerocarya, Stryhnos, Mangifera, among others. The fauna is dominated by domesticated species, with occasional sightings of snakes, although infrequent. In the coastal area, mangrove vegetation predominates, with special biological and ecological value for the city. This vegetation provides suitable conditions for the reproduction of species of shrimp, fish and bivalves. The main species of mangrove vegetation include Avicennia marina, Rhizophora mucronata and other species. The density of this ecosystem has been strongly influenced by human pressure. Another important ecosystem is the seagrass meadows that occur in different parts of the bay and serve as habitat for several species of marine fauna, including fish, crustaceans, bivalves, birds and mammals such as dugong. This area is richer in marine than terrestrial fauna.

The Marracuene district is characterized by the presence of vegetation and fauna both in the terrestrial and coastal areas. The vegetation of the terrestrial zone has distinct characteristics, as it represents a meeting point between the flora of Zambézia and temperate Africa. In this context, several types of vegetation are found, including scrubland (32% of the total area of the district), meadows (6%), dense forest (1%), and other cultivated areas (3%). The transition zone between the coast and the interior includes dry semi-deciduous forests and a mosaic of aquatic flora along the Incomati River basin. The main species that occur in these areas include, in the coastal areas, Sesuvium portulacastrum, Cyperus martitimus, Impoea Pes caprae, Diospyros Rotundifolia, Eucleia natalensis, Brachylaena discolor, Ozoroa obovata, Ochna natalitia, Vepris lanceolata, among others. In the estuary of the Incomáti River (part connected to the mangrove), Rhizophora mucronata is found. In the interior region: Albizia adianthifolia, A. versicolor, Afzelia quanzensis, Ficus burtt-davyi, Sclerocarya birrea, Balanites maughami, Sideroxylon inerme. In the sublittoral region: Phragmites australis, Cyperus papyrus, Typha latifolia, Imperata cylindrica, Echinochloa, Ficus spp, Trichilia emetica, Acacia nilotica, Kraussiana.

Coastal vegetation consists of mangroves and marine ecosystems (corals). The predominant species in the mangroves are Avicennia marina, Ceriops tagal, Rhizophora mucronata,

Bruguiera gymnorrhiza, Lumnitzera racemosa and Xylocarpus granatum. These mangrove species are important for providing a range of environmental, economic and social services, including preventing soil erosion, mitigating floods, providing firewood, building materials, supporting the reproduction of other animals, among others.
In the past, Boane was dominated by forests with high density of tree layer, thick trunk trees with wide treetops that rose to a height of 10 to 20m, which was degraded giving way to pasture and agricultural areas, with patches of secondary savannah and spontaneous or subspontaneous fruit trees.

4.2.2 Xai-Xai City

The Xai-Xai District is covered by the Tongoland-Pondoland Regional Mosaic, which stretches along the Indian Ocean from the mouth of the Limpopo River to the foothills of the Drakensberg in Port Elizabeth, South Africa. This ecoregion has distinct characteristics because it represents a meeting point between the Zambesian and temperate African floras. The district is essentially occupied by wetlands (25.1%), open scrubland (20.8%), cultivated areas (19.8%), and scrubland of various types (27.9%). Urban occupation (2.9%), disturbed or degraded areas (1.6%), water (1%), natural areas without vegetation (0.6%) and mangroves (0.1%) thus occupy small areas.

The district of Xai-Xai does not have conservation areas. The conservation areas present in Gaza Province, but which are far from Xai-Xai, are the Limpopo National Park (in the Districts of Massingir, Mabalane and Chicualacuala) and the Banhine National Park (in the Districts of Mabalane and Chigubo). Although there are no conservation initiatives, the Xai-Xai District is located in the Inharrime Complex, which is a site of sub-regional importance in the context of the greater East African Marine Ecoregion.

In areas where alluvial soils and organic hydromorphic soils occur (known as machongos), there are humid, low-lying lands and depressions that are permanently humid. The riverside vegetation includes tree species such as *Fycus syracyse, Trichilla emética, Xanthocerecis zambesiaca, Cobretum spp, Ekebergia capensis* and even some acacias such as *Acacia xanthophloea*. In the marshes there are reed beds dominated by *Phragmites australis* and *Typha capensis*, or occasionally by patches of *Cyperus papyrus*.

The Xai-Xai district consists of dry arboreal savanna, flooded grasslands on the edge of aquatic forest flora in the delta and alluvium of large rivers. Open scrubland of various types is found for an extension of 10 to 50 km around the mopane savannah in the adjacent district. These thickets are mainly dominated by acacias and *Cobretum imberbe*. In terms of shrubs, you can find Grewia flava, *Dichrostachys cinerea and Boscia rehmannii*. Typical grasses are part of the *Petalidium and Catophractes* species.

4.2.3 Chibuto District

The district of Chibuto lies in the mosaic transition of the Zanzibar- Inhambane and Tongaland-Pondoland sub regions. Open forests or Miombo woodland and savannahs are the natural vegetation of South Central Chibuto including riverine forest. The district has three agro-ecological zones, namely: Acacia savanna consisting of wooded grassland and medium and low scrubland, with some woody species and herbaceous plants also in some low areas; Low, moderately dense forest of dry deciduous miombo; and medium scrub and low open forest.

In the Miombo woodlands, the dominant species are *Brachystegia speciformis* as well as *Julbernardia globiflora and Sclerocarya birrea*. South Central Chibuto is located in the gradient zone, which separates Miombo region and other vegetation formations of southern Mozambique.

It is also noted that the dunes in the district of Chibuto are partly covered with dense bush, grass, settlements and agricultural fields where palm trees and cashew trees are the main plants of this region.

4.2.4 Inhambane City

The municipality of Inhambane has varied vegetation and human influence in certain places. The vegetation is divided into cultivated vegetation and orchard areas, essentially coconut and cashew trees. There are still areas of scattered and dense forest, especially in the areas closest to the coast and on the coast. Next to the Bay, there are mangrove areas and, also, next to the Ocean, there are areas of coastal thicket and casuarinas. The natural coastal vegetation, especially in the interior of the municipality, is composed of mangroves (in the species Avicennia marina, Brugueira gymnorhyyza and Ceriops tagal) and other species, among which wild fruits stand out, such as massaleira, tindzolera and pimbi.

Temporary lagoons are generally covered by marine vegetation such as algae.

In the municipality of Inhambane, small mammals are found in reduced numbers and deeply affected by habitat loss, including the black-faced monkey (*Cercopithecus aethiops*) and the dune hairy gerbil (Gerbillurus tytonis). The recorded birdlife includes more than 72 species, with highlights including the brown-headed parrot, the flamingo, the red hornbill, the peregrine falcon and several species of shrikes and rollers. In the mangroves, the fauna is dominated by fiddler crabs, with bivalves and shrimp also occurring.

4.2.5 Maxixe City

Maxixe city has a vibrant urban green landscape that encourages native trees amidst urban development. This city has three trees per excellence: Silk Flower, Ceriops tagal and Wild Plum. These trees not only enhance the aesthetic appeal of the city but also have cultural and ecological significance. Its presence shapes Maxixe's green identity, providing shade and improving air quality.

The city is also located on an oceanic platform, which favors the existence of seagrasses also known as angiosperms, which also serve as shelter or feeding grounds for more than a thousand species of fish, turtles, seahorses, dugongs and manatees. Seagrasses play a key role in maintaining coastal ecosystems, including helping mitigate climate change as they absorb carbon dioxide dissolved in seawater.
Faunal surveys undertaken by Come (2023) revealed that *Dotilla fenestrata* was the most abundant brachyuran on average, primarily due to the high density of Maxixe populations.

4.3 Socio-economic Environment

4.3.1 Maputo Metropolitan Area and Moamba Distric

The Maputo Metropolitan Area is comprised by the Municipalities of Maputo, Marracuene, Matola and Boane, and is the most populated area in Mozambique, with an estimated 3,000.00 inhabitants in 2023. The economy is centred around the harbour (the largest port in the country – the Maputo port). The main exports include sugar, cotton, and hardwood. About 70% of Boane inhabitants rely on agriculture as their main livelihood.

The current population in Moamba is approximately 80,000 people. The population is expected to grow to up to 90,000 by 2030. The Moamba District is divided into four administrative posts (Moamba-Sede, Ressano Garcia, Sabié and Pessene).

Matola has a population of approximately 1,616,267 inhabitants. Despite the rapid urbanization process, in 2009, only 39% of Matola's population lived in urban areas, 14% in

rural areas and the remaining 47% in peri-urban or suburban areas. Industry is the backbone of the economy of the Municipality of Matola, which has the largest industrial park in the country, representing around 60% of the national industry.

The Marracuene District is home to a total population of 230.530 inhabitants. The population density of this district is higher than the provincial population density (53.1 people/km²) and the national population density (25.3 people/km²). It is noteworthy that this density is also higher than the average population density of coastal districts in Mozambique (46.4 people/km²). The majority of the population of this district (87.8%) is considered rural.

4.3.2 Xai-Xai City

Xai-Xai is located in Gaza Province and occupies an area of approximately 1,865 km2 and is the capital of the province. The municipality is divided into 4 urban Administrative Posts, each subdivided into neighborhoods (12 in total). The Municipality of the City of Xai-Xai has an approximate area of 135 km2 and a population density of 857hab./ km2. Currently the population of the City of Xai-Xai is 132,884 inhabitants distributed over an area of 135 km2.

The Xai-Xai district, where the Municipality in question is located, has an estimated population of 283,000 inhabitants in an area of 1870 km2. The municipality has around 36 educational establishments and around 8 Health Units, including hospitals, health centers and health posts. Public energy supply covers a rate of around 60%, through Electricidade de Moçambique (EDM), which is a public company. The energy that supplies the City of Xai-Xai comes from the Chicumbane Substation, which in turn is supplied by the Infulene Substation in Maputo. Most of the city's neighborhoods benefit from the electricity system through household connections, public lighting and industrial connections.

The Xai-Xai Water Supply system is located in the city of Xai-Xai and the districts of Limpopo and Chongoene. It is composed of 9 subsystems, namely: Neighborhood 11, Neighborhood 13, Hospital, Patrice Lumumba, Inhamissa 6, CFPP, Marieny Gouaby, Chinuguine, Praia and 4 Small Systems: Chicumbane, Julius Nyerere, Muahetane and Chongoene whose water capture source is underground. The system has a total of approximately 498km of distribution network and 52km of adductors. Overall, the installed production capacity is around 43,670m3/day, with an installed power of 766.35Kw/h and the average practice is around 22,790m3/day. Water losses average 52%, making it a challenge to reduce them at AO level to around 40%. The coverage rate is around 62%, resulting from 26,342 domestic customers and 23 fountains. The population of the system's coverage area is estimated at around 235,092 inhabitants, with around 139,613 inhabitants served by domestic connections and 6,900 inhabitants served by fountains.

4.3.3 Chibuto District

The population of the Chibuto District is 229 319 inhabitants, of which 44% are men and 56% are women, with a population density of 40.6 inhabitants/km2. The most populated Administrative Posts are District Headquarters, with 32%, and Malehice with 28%. The total number of families in the district is 41,287. The district has a museum, 2 Monuments (Tchaimite and Mucotuene).

The district is crossed by national road number 1 (EN1) and has a network of around 318 km of secondary and tertiary roads. The district is also served by the fixed and mobile communication network, and is covered by the national electricity grid, from the state supplier EDM.

Agriculture is the basis of the district economy, being dominated by the family sector. The main crops are corn, rice, beans, cassava and vegetables. However, cashew income takes

center stage, with the district being the second largest producer in the province. The district is also suitable for cotton production. The Chibuto heavy sands project constitutes a very important development platform that could lead to the rapid economic and social development of the district.

The main species of domestic animals in the district are poultry, pigs, goats, sheep and cattle. The existence of large areas of good quality pasture, as well as the tradition of cattle raising, is a significant advantage.

The water supply system infrastructure in Chibuto is equipped with a collection center, a 143-kilometer distribution network, with the installed capacity to supply 100,000 inhabitants in an estimated horizon until the year 2030. In the first phase, more than two thousand connections were installed that will benefit three neighborhoods, namely 25 de Junho, Chimundo and Samora Machel.

4.3.4 Inhambane City

The municipality of Inhambane, according to data from the general population and housing census, registered a total population of 98 257 inhabitants, of which 53.0% were female and 47.0% were male (INE, 2022).

The municipality of Inhambane presents a growing trend of population inhabitants in more agglomerate urban and suburban neighborhoods, while rural neighborhoods are characterized by population dispersion. The population growth rate is 2.2%/year. The Muelé, Liberdade and Josina Machel neighborhoods are the most populated in the municipality of Inhambane and, furthermore, the Muelé neighborhood stands out for having the largest population, reaching around 22.8% of the total population of the municipality.

The existing attractions make the municipality of Inhambane one of the points of attraction for national and international tourists that the province and the country have. Among the various tourist activities that exist in the municipality of Inhambane, those that are most frequently developed are related to: water sports (surfing, sailing, skiing); beach sports (soccer, volleyball, etc.); sport fishing, activities with 4X4 motorcycles; boat trips (traditional and yacht); canoeing, sea diving, including professional diving courses; snorkeling; to horse riding; to the observation of marine mammals and birds.

In terms of cash crops, in addition to coconut and cashew trees, cassava, beans, peanuts and various vegetables, such as tomatoes, lettuce, cabbage, among others, predominate.
The Water Supply System of the Inhambane integrates 4 systems, namely: The City, Salela, Nhamua and Josina Machel systems, with a total of approximately 148,081 km of distribution network piping and 15,352 km of adductor piping. The main source of water capture is surface water for the Guiúa system and underground water for the Salela, Nhamua and Josina Machel systems. Overall, the capture capacity is in the order of 14,436 m3/day and the average practiced is in the order of 10,916 m3/day. The installed production capacity is 30,536 m3/day, and the current production capacity is around 11,176 m3/day. The coverage rate is around 82%, corresponding to 17,116 connections (63,868 population served) out of a total of 74,599 residents in the area of assignment.

4.3.5 Maxixe City

The city of Maxixe has a population of 123,114 according to data from the General Population and Housing Census (INE, 2013), of which 67,894 are women (55%) and 55,220 are men (45%). The population density is 452ha/km.
With regard to transport, due to the fact that the municipality is crossed by EN1, there has been a large movement of light, heavy and passenger vehicles, which represents an added

value for the city in terms of transport availability. There is also the mobile telephony services system, currently operated by three operators, namely TMCEL, VODACOM and MOVITEL. The electricity supply system for the City of Maxixe is provided by the Cahora Bassa Hydroelectric Plant from the Lindela substation with a network consisting of 4 high voltage lines.

The Water Supply System of the Maxixe integrates the city's main system and the autonomous systems of Mangapana and Mabil, with a total of approximately 350 km of distribution network piping and 20 km of adductor piping totaling 370 km. The main source of water collection for the main system is surface water from the Inhanombe River, located in the Habana neighborhood, 12 km from the city of Maxixe, and underground water for the Mangapana, Mabil, Chambone and Habana systems. The surface collection point was built between 2006 and 2008 with a raw water collection capacity of 300 m3/h. Underground water collection is carried out through a total of 13 wells, 7 (seven) in Habana, 2 (two) in Chambone, 2 (two) in Macuamene and 2 (two) in Mabil. Overall, the capture capacity is around 10,824 m3/day and the average is around 9,120 m3/day.

The system supplies, through a 350 km distribution network, 13,703 household connections and 26 public fountains, for an average of 16 hours a day, approximately 76,820 inhabitants, which corresponds to 66% of a total population of 117,700 inhabitants distributed across 15 neighborhoods, namely: Chambone, Rumbana, Nhambiho, Bato, Habana, Malalane, Macupula, Maquetela, Eduardo Mandlane (Expansion), Nhamaxaxa, Matadouro, Mabil, Barrane and Bembe.

5 POTENTIAL ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS

The Mozambique Urban Water Security Project aims to improve water service delivery in urban areas facing water scarcity, specifically in Maputo, Gaza, Inhambane provinces, and the Greater Maputo Metropolitan Region. The project will provide increased access to potable water, improved public health outcomes, enhanced climate resilience, and strengthened gender empowerment. However, the implementation of activities to be financed under the project may result in adverse environmental and social risks and impacts that should be managed applying the measures and procedures described in this ESMF and also in the site-specific E&S instruments to be developed prior to the execution of the activities.

Key environmental risks are predominantly associated with construction activities, including potential disruptions to local biodiversity, pollution of air, water, and soil resources, and negative impacts on ecosystems. Infrastructure construction and rehabilitation, such as pipelines and other associated facilities, might result in soil erosion, compaction, and potential contamination of groundwater from construction chemicals. Social risks include the possible exclusion of vulnerable populations due to economic barriers to accessing improved water services, potential conflicts between public utilities and private water providers, and temporary economic displacement due to land acquisition and infrastructure construction. Additionally, the project could present community and worker health and safety concerns, notably increased risks from labour influx, including gender-based violence, sexual harassment, higher crime rates, and communicable diseases like HIV/AIDS.

Adherence to environmental and social procedures by Private Water Providers (PWP), especially in relation to ensuring the quality of the water supplied and also aspects related to occupational and community health and safety, can constitute a significant risk if they do not follow these procedures properly.

To address these challenges, the project requires robust institutional strengthening, implementation of effective environmental and social management frameworks, and

establishment of transparent grievance mechanisms. Strengthening the capacities of responsible institutions is essential for effective project execution. These will also require effective implementation of Environmental and Social Management Plans (ESMPs) both by the Contractors and PWP, particularly for activities under Components 1 and 2.

Given the urban nature of the project sites, indirect impacts may include temporary public inconvenience such as disruptions to access, increased traffic, noise and dust emissions, periodic water shortages, safety hazards near excavation areas, and temporary interruptions to residential and commercial activities near construction sites. Effective planning and clear communication with affected communities will be critical to minimizing these disruptions.

5.1 Potential Environmental and Social Benefits

The Mozambique Urban Water Security Project involves critical interventions in water infrastructure aimed at enhancing water supply services in selected urban regions. By supporting upgrades, rehabilitation, and expansion of water treatment facilities, distribution networks, and related infrastructures, the project will significantly improve water connectivity and service reliability within these areas. Consequently, it will boost socio-economic activities, such as local businesses, agriculture, and tourism, while also creating employment opportunities and contributing to government revenues through increased economic activities and taxes.

The proposed project aligns with the Government of Mozambique's goals of fostering socio-economic development through enhanced productivity and community well-being by providing improved access to reliable and safe water. It further contributes to reducing water losses and operational costs via sustainable management of water infrastructure. Additionally, the project directly supports government efforts toward building resilient urban water services capable of adapting to climate variability and ensuring the sustainable management of water resources.
Significant socio-economic benefits also include the creation of employment opportunities for local workers and communities hosting the project activities, enhancing local economic empowerment. Given Mozambique's vulnerability to climate-induced droughts and water scarcity, the project's design incorporates effective planning to mitigate potential impacts of extreme climatic events, thereby enhancing resilience and securing reliable water access for urban populations.
Specific anticipated benefits include:

- Improved public health outcomes resulting from enhanced access to potable water, leading to a reduction in waterborne diseases.
- Reduction in gender disparities, particularly benefiting women and girls who traditionally bear the primary responsibility for water collection, enabling their increased participation in education and economic activities.
- Strengthened community resilience against climate-related water shortages, ensuring sustainable access to water resources.
- Creation of employment and capacity-building opportunities, especially benefiting local communities, women, and youth, thus fostering inclusive growth and economic empowerment.
- Reduced risk of saltwater intrusion due to excessive pumping of aquifers and contamination due to poor catchment management and poorly drilled and maintained PWP boreholes.
- More efficient use of water as a scarce resource.
- Enhanced climate resilience.
- Enhanced management of instream flow requirements.
- Health benefits for current beneficiaries of the system and new consumers where system expansion will be undertaken. The activities will increase production of drinking water, improve the system reliability and expand the water supply system coverage in

the metropolitan area of Maputo and surrounding areas of the cities of Xai-Xai and Inhambane.

- Improved quality of life, especially for women, due to increased coverage of access to safe drinking water.
- Improvement in consumer protection and conflict resolution due to strengthening of AURA.
- Improvement of communities' resilience to climate risks. The increase of household distribution of drinking water under component 2 will helps beneficiary communities to cope with difficulties in accessing water in situations of flooding or drought, increasing the resilience of the population to climatic events.

5.2 Potential Adverse Environmental and Social Risks and Impacts

The Mozambique Urban Water Security Project, despite its significant benefits, may pose certain adverse environmental and social impacts which include:

- Disturbance of local ecosystems and biodiversity, including water and soil pollution risk.
- Temporary economic displacement, potential exclusion of vulnerable groups, community safety concerns, labor-related issues. This may be related to civil works from the construction of new wellfields and main pipeline in the surroundings of Xai-Xai and Inhambane cities.
- Risks of gender-based violence (GBV) and sexual harassment (SH). During construction works the risk would be higher in activities carried out in densely populated areas, namely in peri urban and rural areas, mainly in areas with higher levels of poverty. The risk could also be higher in activities requiring larger number of non-local workers.
- Health and safety risks during civil construction works, which may involve the use of heavy construction machinery, the transport of large quantities of supplies and equipment, concrete works, trenching and other excavations, may result in potentially significant risks to the health and safety of construction workers.
- Pollution caused by civil construction works. The activities under component 2 will involve civil works that include pipelaying and large-scale infrastructure construction, including heavy machinery, transport of materials and equipment, and concrete batching.
- Biodiversity risks of pipe bridge river crossings. This will be related to the new pipe bridges planned to replace the temporary crossings of the Incomati River and Umbeluzi River which may result in habitat damage, temporary sediment generation in the river channels and potential for other pollution during piling, or as a result of hydrocarbon spills.
- Biodiversity risks of the Xai-Xai and Inhambane groundwater wellfields, overland main line, distribution centres and network construction, and other civil works. Direct risks to biodiversity as a result of clearing of habitat are expected to be insignificant subject to the implementation specific mitigation measures aligned with good international industrial best practices to minimize pollution risks during construction.
- Cultural heritage risks of construction excavations.
- Risk of vulnerable groups being excluded from project benefits due to lack of capacity to pay.
- Risk of conflict exacerbating between FIPAG and PWP due to progressive overlap of service areas that has led to the loss of customers and infrastructure by PWP.

Table 5 - Generic Adverse E&S Risks/Impacts and Mitigation Measures

#	Environmental and Social Element	Risk And Impact	Proposed Generic Mitigation Measures
1	Geology and Hydrogeology	Interruption of hydrogeology and groundwater flows from excavation and ground clearance	• Detailed alignment to take account of local groundwater conditions, e.g. by avoiding areas with springs or where the water table is shallow. • Limit sealed or compacted areas as much as possible, to maintain natural recharge of the water table. • Sizing of culverts shall be done to ensure hydraulic transparency and take into account floods events. • Avoid removing material below the water table.
2		Pollution of groundwater from discharges and accidental releases.	• Installation of sewage treatment to meet required standards; hygiene training for workforce, at all construction installations, such as camps, workshops, active construction sites, etc. • Development and implementation of a waste management plan as part of site specific ESIA and CESMP. • Installing proper drainage at all construction sites.
3		Release of hazardous substances during construction, or operation (e.g. vehicle spills) leading to soil, surface or groundwater contamination.	• Materials handling and control procedures. • Control of construction vehicle movements and prohibit vehicle washing in watercourses, and similar practices. • Emergency response plans during construction (contractors and local authorities) and operation (local authorities).
4	Air Quality	Dust from construction, and other emissions during construction and operation, could affect human	• Sensitive local route selection and siting of construction facilities. • Dust control and suppression measures such water sprinkling during dry spells especially around inhabited areas, residential areas, schools and health facilities.

		health, vegetation (including crops) and wildlife.	• Modern equipment meets appropriate emissions standards, and regular preventative maintenance. • No use of ozone depleting substances during construction.
5		Emissions from vehicles during operation affecting sensitive receptors (human and flora/fauna).	• Sensitive route selection, grading of inclines, etc. • Speed controls and other traffic calming measures to reduce excessive acceleration around towns.
6	Noise and Vibration	Noise and vibration from equipment, traffic and activities during construction (and maintenance) at worksites and associated facilities, may disturb sensitive noise receptors (human and fauna).	• Sensitive local route selection, grading of inclines, etc. and sitting of construction facilities. • Use of modern equipment fitted with abatement devices (e.g. mufflers, noise enclosures); good maintenance regime. • Strict controls of timing of activities, e.g. blasting and other high noise emissions; prohibition on night working if possible. • Observance of seasonal sensitivities (e.g. breeding seasons), and alteration of activity to reduce noise levels at that time. • Speed controls and other traffic calming measures to reduce excessive acceleration around settlements/sensitive receptors.
7		Noise and vibration from traffic during operation may disturb sensitive noise receptors (human and fauna).	• Sensitive local route selection (e.g. bypasses around communities, grading of inclines), and siting of permanent facilities. • Speed controls and other traffic calming measures to reduce excessive acceleration near settlements/sensitive receptors.
8	Resources and Waste Management	Construction (and possibly operation) will require supply of water from surface or groundwater, which could affect existing supply for human communities and ecosystems.	• Water study prior to any abstraction, to inform a Sustainable Water Management Plan. • No abstraction without prior approval of relevant authorities at all locations.

			• Promotion of water efficiency (including leak detection, preventative maintenance of equipment) and water recycling.
9		Inefficient waste management during construction and maintenance leading to excess materials consumption, generation of waste/emissions, soils and water pollution.	• Preparation of Waste Management Plan following the waste hierarchy, supported by staff training. • Earthworks to be designed to achieve a balance between cut and fill wherever possible. • Use of authorized contractors for hazardous and any other waste which the project cannot dispose of safely.
10		Loss, fragmentation and degradation of habitat, and severance of animal migration routes and pathways	• Careful route selection and siting of all project components, with advice from biodiversity authorities/wildlife specialists. • Wherever feasible, the establishment of buffer zones around conservation areas, watercourses, and other locations identified as ecologically sensitive and avoidance or minimization of activity within these zones. • Rehabilitation of cleared areas with native species, and ecosystem restoration in habitats of conservation value, using specialist advice and input, backed up by a long-term monitoring programme and corrective actions as necessary.
11		Land clearance for new roads and upgrading of existing roads may cause loss or fragmentation of protected areas and other areas of conservation interest, and degradation following poorly managed rehabilitation.	• Careful route selection and siting of all project components, with advice from biodiversity authorities/wildlife specialists. • Wherever feasible, the establishment of buffer zones around conservation areas, watercourses, and other locations identified as ecologically sensitive and avoidance or minimization of activity within these zones. • Rehabilitation of cleared areas with native species, and ecosystem restoration in habitats of conservation value, using specialist advice

			and input, backed up by a long-term monitoring programme and corrective actions as necessary.
12		Severance of terrestrial routes and watercourses used for migration or for access to feeding and breeding areas.	• Sensitive planning of road alignments. • Wildlife crossings for terrestrial animals, and design of culverts/ • crossing structures to avoid impacts on animal movement.
13		Construction impacts on habitats and species (e.g. from changes in drainage, soil erosion, pollution of water, soil or air, introduction of invasive species, and general human disturbance).	• Where development in sensitive areas cannot be avoided, mitigation may include: • Minimization of area impacted, clear demarcation of remaining intact areas of habitat, and prohibition of activity into those areas for any purpose, maintenance of wildlife corridors between fragmented areas wherever possible. • No ground clearance upstream of sensitive areas unless appropriately engineered drainage installed. • Habitat rehabilitation and ecosystem restoration of areas no longer required after construction, as soon as possible. • If loss of Critical Habitat is inevitable, development/implementation of an Offsets Programme. • See relevant sections re. control of impacts from pollution, invasive species, and induced access.
14	Direct Impacts on Flora and Fauna	Clearance of vegetation may lead to loss of plant species and habitat of conservation interest.	• During preparation of the site specific ESIAs, undertake mapping of gazetted limits of all forest reserves, key biodiversity areas (KBA) and IBA, wetlands, national park and game reserves to avoid all encroachments and vegetation removal including opening borrow pits and quarry sites in such habitats. • Careful design and siting of all project components, with advice from biodiversity authorities/wildlife specialists. • Careful planning of phasing and timing of construction activities.

			• Demarcation and avoidance of areas of conservation interest (high value species, feeding or breeding sites, migration routes, etc.) where possible, and wildlife rescue and translocation where appropriate, under expert supervision. • Avoid clearing culturally, economically and biologically valued trees.
15		Project development could displace animals and disturb their habitats, by direct disturbance during construction and operation (e.g. from noise, light disturbance at night, general human presence)	• During preparation of the site specific ESIAs, undertake mapping of gazetted limits of all forest reserves, key biodiversity areas (KBA) and IBA, wetlands, national park and game reserves to avoid all encroachments and vegetation removal including opening borrow pits and quarry sites in such habitats. • Careful design and siting of all project components, with advice from biodiversity authorities/wildlife specialists. • Careful planning of phasing and timing of construction activities. • Demarcation and avoidance of areas of conservation interest (high value species, feeding or breeding sites, migration routes, etc.) where possible, and wildlife rescue and translocation where appropriate, under expert supervision. • Avoid clearing culturally, economically and biologically valued trees.
16	Invasive Species	Movement of plant and soil into areas, could introduce invasive species which adversely impact fauna, flora, ecosystems, and crops.	• Invasive Species Management Plan, which should be developed and implemented in consultation with authorities, including appropriate eradication measures for different species/groups of species, as part of site specific ESIAs and/or CESMP. • Staff training and awareness raising in communities. • No introduction of exotic species (e.g. for site rehabilitation) without specialist vetting and government approval.

17	Physical and Economic Displacement of People, Property, Assets and Resources	Development of projects may physically displace people or lead to the loss of assets.	• Careful design and siting of all project components and avoiding occupation of areas which are inhabited or regarded as of high value by communities (e.g. horticulture, community orchards) where possible. • Early development and sensitive implementation of resettlement planning, in accordance with the WB's Environmental and Social Framework, especially the ESS5 (Land Acquisition, Restrictions on Land Use and Involuntary Resettlement), national regulations and international good practice to compensate for any losses (both physical and economic). • Relocate affected utilities before commencement of civil works. For water, provide alternative sources of water, as feasible, in consultation with the respective utility operators.
18		Destruction / disruption of public utilities such as water supply, and electricity supply.	• Careful design and siting of all project components and avoiding occupation of areas which are inhabited or regarded as of high value by communities (e.g. horticulture, community orchards) where possible. • Early development and sensitive implementation of resettlement planning, in accordance with national regulations and international good practice to compensate for any losses (both physical and economic). • Relocate affected utilities before commencement of civil works. For water, provide alternative sources of water, as feasible, in consultation with the respective utility operators.
19	*Economic Development and Employment*	Direct employment of local population in workforce, and stimulation of local economy through demand for goods and	• Development of an Employment Plan, with clear employment requirements and procedures for the construction workforce in line with guidance provided in the project LMP.

		services will enhance livelihoods and economic activity in local communities, but potentially adverse effects if community relations are not well managed.	• Transparent and culturally appropriate communication with communities regarding employment opportunities. • Fair and transparent hiring and staff management procedures. • Employment requirements and vocational training plan to be agreed with local institutions, so that local people can be trained to meet the project's needs in a timely fashion. • Development of measures to manage the transition after construction is complete, including SME development, ongoing opportunities for the workforce in road management and maintenance, reskilling and alternative employment.
20		Procurement of local goods and services for road development and workforce could deplete resources available for local communities.	• Procedures for sustainable local procurement, in consultation with local authorities and community leaders. • Local capacity building to foster community resilience. • Monitoring local prices, and exploration of corrective measures (e.g. alternative sourcing to reduce local pressure) if appropriate.
21	*Cultural Heritage*	Displacement or damage to cultural heritage sites by construction activities, harm to the setting, amenity value, etc. of the site due to water infrastructures construction or operation.	• Careful design and siting of all project components, taking account of community consultation/specialist surveys. • Development of a Cultural Heritage Management Plan covering tangible and intangible (e.g. local traditions and practices) cultural heritage. • Implementation of a "Chance Finds" procedure during construction.
22		Community Health, Safety and Security	• Good construction site "housekeeping" and management procedures (including site access). • Disease control measures, e.g. no pools of standing water, rodent control, treatment of water. • Risk assessments and emergency response planning to consider impacts on local communities.

			• Development & implement Health & Safety Management Plan, Traffic Management Plan as part of ESIA and CESMP. • Provision of pedestrian lanes/paths, bridges, zebra crossing at areas of high human presence such as markets, trading centers, settlement, schools among other gathering areas. • Provide safe and regular access to the community to their houses/ services. • Provide clear signage at the construction areas including new directions for access. • Implement the measures contained in the Security Management Plan.
23		Poor construction management practices may lead to adverse effects on safety, human health and wellbeing of the host community and the public, especially related to risk of polluting community water sources, transmission of communicable diseases, traffic accidents.	• Good construction site “housekeeping” and management procedures (including site access). • Disease control measures, e.g. no pools of standing water, rodent control, treatment of water. • Risk assessments and emergency response planning to consider impacts on local communities. • Development & implement Health & Safety Management Plan, Traffic Management Plan as part of ESIA and CESMP. • Provision of pedestrian lanes/paths, bridges, zebra crossing at areas of high human presence such as markets, trading centers, settlement, schools among other gathering areas. • Provide safe and regular access to the community to their houses/ services. • Provide clear signage at the construction areas including new directions for access. • Implement the measures contained in the Security Management Plan.
24		Impaired/ cut off Access to Local Communities’ Services and homes.	• Good construction site “housekeeping” and management procedures (including site access).

			• Disease control measures, e.g. no pools of standing water, rodent control, treatment of water. • Risk assessments and emergency response planning to consider impacts on local communities. • Development & implement Health & Safety Management Plan, Traffic Management Plan as part of ESIA and CESMP. • Provision of pedestrian lanes/paths, bridges, zebra crossing at areas of high human presence such as markets, trading centers, settlement, schools among other gathering areas. • Provide safe and regular access to the community to their houses/ services. • Provide clear signage at the construction areas including new directions for access. • Implement the measures contained in the Security Management Plan.
25		Interaction between workforce and local communities may increase the occurrence of communicable diseases, including HIV/AIDS and sexually transmitted diseases (STDs).	• Implementation of a health management system for the construction workforce, to ensure it is fit for work and that it will not introduce disease into local communities. • Training and awareness training for the workforce and their dependents on HIV/AIDS and other STDs, and communicable diseases including malaria; health awareness raising campaigns for communities on similar topics. • Create awareness on COVID-19 transmission, emphasize social distancing and the wearing of masks, and emphasize washing hands regularly. • Provision of substance abuse prevention and management programs and Induction training for all workers on the Code of Conduct.
26		Real or perceived disruption to normal community life, through the	• Prioritize hiring of more casual workers from the host community to minimize labour influx, in liaison with local leaders.

	Workforce-Community Interactions	physical presence of a construction workforce.	• Adoption of a Stakeholder Engagement Plan, as a framework for early and ongoing community consultation. • Implementation of a Grievance Mechanisms contained in the SEP as early as possible during project preparation and throughout project implementation phase. • Works procedures, defining a Code of Appropriate Conduct for all workers. • Training for all staff in acceptable behavior with respect to community interactions. • Implement the project GBV/SEA/SH Action Plan and undertake extensive community sensitization in preventive measures.
27		GBV/ SEA/SH risks and impacts	• Prioritize hiring of more casual workers from the host community to minimize labour influx, in liaison with local leaders. • Adoption of a Stakeholder Engagement Plan, as a framework for early and ongoing community consultation. • Implementation of a Grievance Mechanisms contained in the SEP as early as possible during project preparation and throughout project implementation phase. • Works procedures, defining a Code of Appropriate Conduct for all workers. • Training for all staff in acceptable behaviour with respect to community interactions. • Implement the project GBV/SEA/SH Action Plan and undertake extensive community sensitization in preventive measures.
28	*In-migration*	Individuals are likely to migrate into the area which may cause conflict with resident communities and put	• Careful design and siting of all project components, after consultation with communities and local authorities. • Preparation and implementation of an Influx/In-migration / Labour Management Plan, in consultation with local authorities.

		pressure on resources and infrastructure.	• Sourcing of local workforce and Creation of supervised leisure areas in workers' camp; Cooperation with local law enforcement; and enforcement of sanctions (e.g., dismissal) for workers involved in criminal activities.
29	*Labour and Working Conditions*	Poor management of occupational health and safety could lead to accidents, injuries and illnesses among workers; mental health issues may arise due to remote or enclosed living.	• Careful design and siting of all project components, after consultation with communities and local authorities. • Preparation and implementation of an Influx/In-migration / Labour Management Plan, in consultation with local authorities. • Sourcing of local workforce and Creation of supervised leisure areas in workers' camp; Cooperation with local law enforcement; and enforcement of sanctions (e.g., dismissal) for workers involved in criminal activities.
30		Differences in nationality, ethnicity, religion, etc. may lead to discrimination and harassment, and differences (perceived or real) in working conditions between workers may lead to resentments.	• Employment practices and working conditions should conform to International Labour Organization (ILO) Standards, national regulations and project LMP. • Rest and recreational facilities and time should be provided, and rules on alcohol and drugs defined and clearly communicated to workers. • The basis for differences in the standard of accommodation should be non-discriminatory; it should be documented and communicated transparently to the workforce. • Clear and comprehensive health and safety reporting and workers' grievance procedure system should be established and be freely available to all the workforce. • Contractors to provide PPE to all workers, free of charge. • Contractors to undertake workplace risk assessment. • Inductions and regular training for all workers on OHS risks. • Carry out a comprehensive health awareness campaign to prevent major outbreaks of communicable diseases (including COVID 19).

			• Control dust by spraying water during construction and control vehicular emissions during construction and operation stages. • Prepare a construction site management plan, which should explicitly focus on the elimination of waste and ponding through good housekeeping practices. • Assign higher priority to any accident preventive measures. Assign higher ranking to the proper design of safety features to prevent accidents. • Draft a proper traffic management plan for the construction phase including details of road signs, markings, intersection layouts, canalization of flows, access restrictions, footpaths, bus stops, and provisions for non-motorized vehicles. • Enforce good housekeeping practices on work sites and in workers' camps. Enforce laws, regulations, and policies related to construction equipment, sanitation, and vehicle safety. • Provide all workers with employment contracts, including workers' Code of Conduct, to regulate their behavior at work and while interacting with host community. • Put in place emergency response measures for accidents and incidents to workers. • Maintain Incidents/ Accidents Register and report all Serious and Severe Accidents to Health and Safety Authorities (INATRO) and the traffic police, as applicable. • Undertake root cause analysis, development and implement Safeguards Corrective Action Plan, following all incidents and accidents. • The project should not employ child labour or underage workers. • Develop as part of CESMP work-method statements for hazardous tasks such as working at heights, confined spaces, hot works, etc.

31		Likely deployment of child labour.	• Employment practices and working conditions should conform to International Labour Organization (ILO) Standards, national regulations and project LMP. • Rest and recreational facilities and time should be provided, and rules on alcohol and drugs defined and clearly communicated to workers. • The basis for differences in the standard of accommodation should be non-discriminatory; it should be documented and communicated transparently to the workforce. • Clear and comprehensive health and safety reporting and workers' grievance procedure system should be established and be freely available to all of the workforce. • Contractors to provide PPE to all workers, free of charge. • Contractors to undertake workplace risk assessment. • Inductions and regular training for all workers on OHS risks. • Carry out a comprehensive health awareness campaign to prevent major outbreaks of communicable diseases (including COVID 19). • Control dust by spraying water during construction and control vehicular emissions during construction and operation stages. • Prepare a construction site management plan, which should explicitly focus on the elimination of waste and ponding through good housekeeping practices. • Assign higher priority to any accident preventive measures. Assign higher ranking to the proper design of safety features to prevent accidents. • Draft a proper traffic management plan for the construction phase including details of road signs, markings, intersection layouts, canalization of flows, access restrictions, footpaths, bus stops, and provisions for non-motorized vehicles.

			• Enforce good housekeeping practices on work sites and in workers' camps. Enforce laws, regulations, and policies related to construction equipment, sanitation, and vehicle safety. • Provide all workers with employment contracts, including workers' Code of Conduct to regulate their behaviors at work and while interacting with host community. • Put in place emergency response measures for accidents and incidents to workers. • Maintain Incidents/ Accidents Register and report all Serious and Severe Accidents to Health and Safety Authorities (INATRO) and the traffic police, as applicable. • Undertake root cause analysis, development and implement Safeguards Corrective Action Plan, following all incidents and accidents. • The project should not employ child labour or underage workers. • Develop as part of CESMP work-method statements for hazardous tasks such as working at heights, confined spaces, hot works, etc.
32	Operations of the ancillary/ supporting facilities such as Camps, Quarries, Gravel borrow pits, batching plants, etc	The lack of proper licensing and authorization for ancillary/supporting facilities such as workers' camps, quarries, gravel borrow pits, and batching plants can significantly contribute to environmental degradation at the project sites.	• All ancillary/ supporting facilities shall be subjected to E&S screening, baseline surveys/assessments and where necessary, ESIA/ESMPs developed before commencement of their operations. • All ancillary facilities shall be located away from residential establishments, schools and hospitals, while observing the need to ensure public health and safety. • Quarries and borrow pits shall not be established in or near national, provincial, district and village conservation forests and other ecologically sensitive and protected areas. • All construction materials source sites shall be subjected to E&S due diligence to ascertain their compliance with National E&S statutory

			requirements before they are engaged to supply such materials, if required. • All the statutory laws, regulations, rules etc., pertaining to acquisition, transport, storage, handling and use of explosives will be strictly followed. • Complaints of damage shall be managed through the project Grievance Redress Mechanism (GRM) that will be established prior to construction. • The Contractor shall have GRMs established at/or near every ancillary facility, and their operations guided by the general GRM under the project's SEP. • During quarry and borrow site operation, provide adequate drainage to avoid accumulation of stagnant water. • Upon completion of extraction activities, re-contour borrow/quarry pit wall or fill-up when there are available and suitable materials such as excavation spoils, replace topsoil, and re-vegetate with native species such as grasses and fast- growing shrubs and trees. The Contractor restoration plan shall be submitted as part of the Site Specific CESMP that shall be approved by FIPAG and the WB. • It is possible that villagers may request borrow pits to be left excavated so that they may be used as water reservoirs or fishponds. If this were to be agreed between the contractors and the villagers, all the full safety measures detailed above must be observed. Such agreements would be formalized in writing between the contractors and the villagers after full discussion with all parties concerned.

6 STAKEHOLDER ENGAGEMENT, DISCLOSURE AND CONSULTATIONS

6.1 Introduction

Stakeholder engagement is an inclusive process that will be conducted throughout all the stages of the project. It is aimed to support the development of strong, constructive, and responsive relationships which are important for the sustainability and acceptability of the project. Stakeholder engagement is most effective when initiated at an early stage of the project development process and is an integral part of early project decisions and the due diligence assessment, management and monitoring of the project's environmental and social risks and impacts.

As seen under the ESS10 Stakeholder Engagement and Information Disclosure under the ESF, stakeholder consultation recognizes the importance of open and transparent engagement with project stakeholders. Success of any project is hinged on the level and quality of stakeholder engagement, which is to be an inclusive process expected to occur throughout the project life cycle. Effective stakeholder engagement can improve the E&S sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and implementation.

6.2 Public Consultation During Preparation of the ESMF

Consultations were conducted in two stages: As part of previous PforR (September 2022); and preparation of the project as an IPF, on which the public consultation of the draft E&S instruments were undertaken on March 22, 2025. The stakeholders' participation was based on samples of stakeholders taken from the Central Government Institutions, Provincial Authorities, and at Community level, where a total of 166 stakeholders were consulted, of which 109 (65,7%) were men and 57 (34,3%) were women as indicated in Annex 5. Pictures taken during consultations, and attendance sign-in forms are included in Annexes 5.

6.3 Objectives of Consultation

The overall objective of the consultation process was to solicit views, concerns, opinions, attitudes of the different stakeholders; disseminate project information and incorporate the views of stakeholders in the project design and operation including E&S mitigation measures, management, and monitoring plans. The specific objectives (which are also in line with the World Bank ESF and the national laws for the consultation process) are:

- To ensure the community and other key stakeholders are aware of the proposed project process and operations.
- To assess the interest of the stakeholder on the project and discern the attitudes of the community and their leaders towards the project so that their views and proposals are taken into consideration in the formulation of mitigation and benefit enhancement measures.
- To consult stakeholders for gathering information needed to complete the assessment.
- To improve project design and, thereby, minimize conflicts and delays in implementation.
- To obtain stakeholders' inputs into the scope of the E&S instruments, impact identification, potential sources of E&S impact and impact mitigation.
- To solicit stakeholders' questions and concerns from stakeholders and ensure they are addressed in the E&S instruments.
- Identify specific interests of and enhance the participation of the poor and vulnerable groups.
- To contribute to increased long term project sustainability.
- To inform the process of developing appropriate management measures as well as institutional arrangements for effective implementation of the Project; and

- Build and maintain a constructive relationship with stakeholders, in particular project host communities and beneficiaries.

6.4 Stakeholders' Mapping

Stakeholders mapping was used to identify the stakeholders and the level of engagement of different stakeholders during the project lifecycle. In complying with World Bank's ESS10, two levels of stakeholders were identified:

- Affected or likely to be affected by the project (project affected parties); and
- Stakeholders that may have an interest in the project (other interested parties).

Details on the Project Affected Parties and 'Other Interested Parties are indicated in SEP, chapter 3, table 1.

6.5 The Consultation Process

The stakeholder and public consultations for the project were conducted simultaneously in 3 project sites, namely in Moamba, Xai-Xai city, and Inhamabne city. The consultations targeted communities residing in the cities to benefit by project interventions. The consultations were held to ensure that the stakeholders were informed about the projects, and their views are incorporated in the process of the project's design and development. The discussion allowed the community members to present their views concerning the proposed project. Considering their views and preferences was essential in the identification of the level of project risks and determined the need for site specific E&S studies

6.6 Major Issues Raised by Stakeholders

Consultations were conducted in Portuguese language. The minutes and raised concerns were recorded in Portuguese but summarized in English for easiness of ESMF reference. All issues raised were noted and recommendations for their consideration by the project have been provided. These will also be addressed in the specific ESIAs, ESMPs and RAPs of each sub-project.

In subjects involving major works, the Contractors should employ a Project Liaison Officer to play an interphase role between the project and the communities. This is important in that, of late and in many areas where the Government is implementing projects, the relation between the communities and the contractors is characterized by accusations of harassment by the contractors' teams.

6.7 Stakeholder and Public Consultations during Project Implementation

The project's SEP has been prepared as a guiding document for subprojects to adapt and implement their own stakeholder engagement activities for a focus on construction period. The SEP includes guidance on engagement of vulnerable groups and individuals as stakeholders; and stakeholder engagement is the critical issues in emergency situations such as Natural Disasters.

6.8 Project Information Disclosure to the Public

In compliance with World Bank ESF (ESS 10 & other relevant ESSs) and the Mozambique ESIA decree No. 54/2015, of December 31st; disclosure of relevant safeguard documents helps affected communities and other interested parties to understand the scope and associated risks, impacts and opportunities. FIPAG has continued providing the respective communities and other stakeholders with access to the required relevant information. During consultative meetings and discussions, the following details were further clarified: purpose, nature, and scale of the project; duration of proposed project activities; potential opportunities, etc.

The World Bank ESF requires that before a sub-project is approved, the applicable documents (ESMF, RPF, ESIAs and RAPs and any other project E&S risk management instruments) must be disclosed and made available to the public/communities for review at strategically accessible places (e.g. World Bank website, FIPAG website, Provincial Offices, and host districts as well as in the key local newspaper; in a form, manner and understandable language preferable Portuguese language and/or local dialect/s. This allows the public and other stakeholders to comment on the possible E&S impacts of the projects. It also helps the appraisal team to strengthen the frameworks as necessary, particularly measures and plans to prevent or mitigate any adverse E&S impacts.

The public consultations on the draft E&S instruments were conducted on March 22, 2025, and also served the purpose of disclosing the prepared project E&S instruments and soliciting additional comments from them. The comments received have been considered and accordingly informed the finalization of the project E&S instruments.

7 ENVIRONMENTAL AND SOCIAL MANAGEMENT PROCEDURES

This chapter provides specific stages to be undertaken for E&S screening process, review and approval of the project sub-project activities. Once the sub-project components have been identified, locations selected, and their scope confirmed, FIPAG will have to use this section as the guideline for undertaking E&S screening of sub-project components, guiding conduct of required E&S assessment and implementing the appropriate measures while ensuring compliance to all respective WB E&S framework (ESF), applicable Environmental and Social Standards and Mozambique's legislative requirements for ESIA for development projects as stipulated in the Environmental Impact Assessment Regulation (Decree No. 54/2015, of December 31st). The Ministry responsible for Environment Impact Assessment is responsible for the final decision in the E&S assessment process. The procedures presented in this section are established as a framework to ensure compliance throughout the project cycle i.e. identification, preparation and implementation.

7.1 Screening and Categorization

7.1.1 Step 1: E&S Screening and Scoping of Project Activities and Sites

The first step of the EIA process in Mozambique is E&S Screening of the proposed development project, where the sub-projects activities are categorized. In the first instance, each subproject shall be considered on the basis of its eligibility to be supported and financed under the project. The initial screening shall be based on the Eligibility Criteria following the List of Excluded Activities under Annex 9. Any sub-project activity listed under Annex 9 will be considered ineligible for project financing and will be rejected at this stage. All project activities considered to be of High Environmental and Social Risk Category (ESRC) (including TA activities) shall not be eligible to be supported and/or implemented under project. Once the subproject is considered eligible under the screening, it is at this stage that the level of the required ESIA is determined whether a full, simplified or not EIA receives the permit after approval by the Ministry that oversees the environmental assessment through multi-sector technical review committee.

Environmental and social screening is undertaken to anticipate the likely risks, and it facilitates early identification of potential impacts and consequently guides on the needed level and form of assessment that is commensurate with the anticipated risk level. The screening based on World Bank's ESF also establishes a Project's Environmental and Social Risk Classification whereas on Government of Mozambique's Decree on Environmental Impact Assessment Regulation (Decree 45/2004) this establishes the form and level of assessment required. FIPAG will carry out scoping and screening of the sub-projects using the Environmental and Social Screening Form (ESSF) in Annex 1. The ESSF requires information that determines the characteristics of the prevailing local bio-physical and social environment with the aim of assessing the potential project impacts on it. The ESSF also should be used to identify the potential socio-economic aspects that will require assessment, mitigation measures and or resettlement and compensation. Besides the onsite-specific characteristics and scope of subproject activities, the E&S screening shall take into consideration the preliminary assessments that have been provided in the ESMF under Chapter 2 (Project Description), and Chapter 5 (Potential Environmental and Social Risks and Impacts).

7.1.2 Step 2: Assigning Appropriate Environmental and Social Risk Classification and Determining Level of E&S Assessment

In summary, FIPAG in consultation with WB E&S Specialists, and the Ministry that oversees the area of environmental assessment will then assign the appropriate environmental category to the subprojects based on the information contained in the ESSF and the national criteria for categorization. The potential categories, in line with the National requirements are further elaborated below. TORs shall be prepared by FIPAG, reviewed, and cleared by WB & Ministry of Agriculture, Environmental and Fisher (MAAP), depending on the ESRC and level of ESA required.

Environmental and Social Risk Classification (ESRC)

The ESF classifies all projects into one of four classifications of Environmental and Social Risk Categorization (ESRC): High Risk, Substantial Risk, Moderate Risk or Low Risk, which respectively translate to the National Classification of Category A+, Category A, Category B & Category C. In determining appropriate risk classification, the ESF considers relevant issues, such as the type, location, sensitivity, and scale of the project; the nature and magnitude of the potential environmental and social risks and impacts; and the capacity and commitment of the Borrower (including any other entity responsible for the implementation of the project) to manage environmental and social risks and impacts in a manner consistent with the ESSs. The categorization also takes into consideration context issues which could be relevant to the delivery of E&S mitigation measures and outcomes depending on the specific project. Context issues may include legal and institutional considerations, the nature of the mitigation and technology being proposed, governance structures and legislation, issues relating to stability, conflict, and security. Similarly, Mozambique's Decree on Environmental Impact Assessment Regulation (Decree 45/2004) considers project type, location, sensitivity, scale and nature of E&S risks and impacts, and this in turn is used to determine the level of E&S Assessment to be undertaken, ranging from E&S Screening (Category C/ Low Risk), Simplified ESIA (Category B/ Moderate Risk), Full ESIA (Category A/ Substantial Risk) and/ or Full ESIA and supervision & review by Independent Experts(Category A+ / High Risk). Where necessary, the E&S Risk Classification may be adjusted based on the adaptive principle under ESS1. ESRC is reviewed and revised throughout project implementation to ensure that it continues to be appropriate. Any change in ESRC will be disclosed in WB's and FIPAG's websites.

Level of required ESIA

If the proposed project is fully screened and determined that it will require a full EIA or Simplified EIA, then a proponent is asked to undertake a Scoping study. All activities that fall under Category A+ or A require scoping, but to a different extent. For activities of Category A+ and A, an Environmental Pre-Viability Study (EPDA) that also includes the development of the ToR must be done. Activities in Category B only require Terms of Reference for the Simplified Environmental Report (SER), but no EPDA. The proponent is responsible for writing the EPDA. An essential aspect is that the proponent identifies the likelihood of negative E&S impacts and proposes adequate and acceptable mitigation measures. The EPDA report is reviewed by a multi-sector technical review committee. The technical committee reviews the scoping report of A+, A and B projects. It provides comments and asks for additional information to the proponent when regarded necessary. The scoping process helps the project developer to identify key environmental and social issues associated with the proposed project. Equally, Scoping may be an end of the ESIA process if the risks and impacts found at the end of the scoping exercise are insignificant and the proposed mitigation measures are commensurate to the likely E&S risks and impacts.

7.1.3 Step 3: Carrying out Environmental and Social Assessment process

The ESIA process is guided by the approved ToR that is established during the scoping stage. Sample ESIA ToRs to be customized to each subproject assessment is provided under Annex 2. The methods of assessment undertaken in the ESIA shall be specified in the ToR based on the findings of the site-specific E&S Screening and Scoping. The ESIA and simplified reports shall be submitted to MAAP for review and consideration for approval. World Bank also reviews and clears the ToRs for conduct of ESIAs before commencement of ESIA studies.

7.1.4 Step 4: Carrying out Stakeholder and Public Consultations and Disclosure

Consultations shall be conducted as part of E&S assessment process, right from project concept development to seek views on the design aspects from various stakeholders, during the ESIA, moving into commencement of implementation and throughout the implementation phase. Views of stakeholders (host community, public and government agencies) have to be included in the ESIA report. FIPAG and the respective Provincial Authorities, and Districts Governments will interact closely with beneficiary communities, government departments, and NGOs, right from the early stages of the project preparation on a continuous and regular basis for developing and implementing the respective project ESIAs. During the consultations, FIPAG will ensure that accurate information is given about the project and its possible environmental and social impacts. The opinion/suggestions made by the community/affected groups shall be incorporated in the respective ESIA and ESMPs, and subsequently in the designs.

A second round of consultations are undertaken on the draft ESIA reports, to discuss the preliminary findings and mitigation recommendations with a view to validate them and ensure incorporation of any final views and recommendations from the stakeholders. The consultations undertaken on draft ESIAs serve the purpose of disclosing the prepared instruments. Disclosure of the E&S instruments is undertaken by both Government and the World Bank on their respective websites and distribution of the draft instruments to various and mapped stakeholders for comments.

7.1.5 Step 5: Review and Approval

A temporary multi-sector technical review committee is set up to review the EPDA. The same committee also reviews the ESIA report. The committee submits a report with its comments to MAAP, which also takes into account all the comments made by the public during the review process. For A+ projects, the review report of the independent expert is included (mechanism not yet operational). During the review process, the proponent may be required to submit additional information to assist the review committee. The proponent has 10 working days to comply with these requests. The findings of the report of the committee form the basis for the decision-making process by MAAP regarding the granting of the Environmental and Social approval and License.

The review of the Simplified Environmental Report (SER) also entails the set up of a technical committee comprising of various (local) representatives and technical experts. Through the review committee relevant expertise from within the government can be involved in the review. This committee may also request additional information from the developer if the committee is not satisfied with information and relevant documentation in the draft ESIA Report. If the review is satisfied with the additional information provided, the committee provides recommendations to MAAP regarding the issue of the Environmental License.

Besides the review by the Government Authorities, ESIA reports for subprojects are reviewed and cleared up by the World Bank. It is good practice to gain World Banks clearance before approval by MAAP.
Environmental Licenses are valid for a period of five years. They are then renewable for an equal period. The license is a prerequisite for the issuance of any other license or permit that may be legally required. The decision on the ESIA approval and the issuance of the license are both taken by the central EIA authority. MAAP is the competent authority for activities of Category A+ and A, and its provincial departments may issue the license for Category B and C projects.

7.1.6 Step 6: Environmental and Social Implementation and Monitoring

The Implementation step then follows approval of the ESIA/ESMP. Environmental and social monitoring aims at checking the effectiveness and relevance of the implementation of the proposed mitigation measures. The project will be monitored and supervised throughout its lifetime. This shall be achieved through reporting, site visits/supervision, and information from third parties, such as through grievance redress mechanism, conducting independent annual audits, and civil society. Monitoring exercises shall be undertaken in sequences and frequencies stipulated in the ESCP, ESIA, ESMPs, or RAPs. MAAP E&S Specialist and the Provincial Government leaders and Districts will undertake monitoring exercises. FIPAG will have the lead role in monitoring to ensure that various project environmental and social obligations are met and will ensure that the requirement for an environmental and social audit is fulfilled on a periodic basis. The monitoring indicators will be developed by FIPAG's project Environmental and Social Specialists based on the mitigation measures and the ESMP. It is critical to note that MAAP has a regulatory and coordinating role in monitoring compliance with permits, standards, regulations and all approval conditions.

If engaged, the Contractor-related E&S plans shall be prepared by the respective Contractors, building upon ESMP/s prepared for each subproject as part of respective designs that shall be drawn up for implementation. In addition, the operational entities who benefit from the project to expand their operations shall be required to update their Operational ESMPs to incorporate applicable E&S mitigation measures.

Monitoring and Evaluation
Adaptive management recognizes the dynamic nature of the project development and implementation process, as well as the rapidly changing environments in which the project operates. Based on the results of the monitoring, amendments may be made to management plans or project commitments to the Bank. In addition to reflecting changing needs that arise as part of the monitoring process, changes in project design, unforeseen events, or regulatory or political changes might require a change in the original environmental or social approach, including those regarding the security context in which the project will operate.

Reporting
FIPAG will undertake quarterly Reporting to the Bank quarterly on the implementation of the project's environmental and social performance, paying particular attention to whether the impacts and planned mitigation measures were adequate or whether adjustments are needed to meet the overall objectives of the project and the agreed environmental and social commitments.

7.2 Other Applicable Environmental and Social Instruments

7.2.1 Grievance Redress Mechanism (GRM)

This Section provides guidance on the operation of a Grievance Redress Mechanism, also covered under the Project's Stakeholder Engagement Plan (SEP) prepared as standalone document (Please refer to the SEP for details). Handling of environmental and social complaints for projects classified as Substantial risks, FIPAG is required at the minimum, to set up a grievance redress mechanism while ensuring their functionality. This system will be widely publicized, in Portuguese and local languages/ dialects and forms, and be easily accessible to potentially affected people. To the extent possible, a subproject-level grievance redress mechanism will also work in conjunction with WB's own environmental and social complaints mechanism, the Grievance Redress Service (GRS). WB will systematically and in real time be kept informed of the functioning of the mechanism and, for each complaint, be updated on the status of the resolutions. Periodic reports are expected to mention the activity results of the client's grievance redress mechanism.

Grievance redress mechanisms provide a way to provide an effective avenue for expressing concerns and achieving remedies for communities, promote a mutually constructive relationship and enhance the achievement of project development objectives. It provides a platform for communities and individuals who believe that they are adversely affected by a WB supported project may submit complaints to existing project-level grievance redress mechanisms. Grievance redress mechanisms are increasingly important for development projects where ongoing risks or adverse impacts are anticipated. They serve to prevent and address community concerns, reduce risk, and assist larger processes that create positive social change. It has been learned from many years of experience that open dialogue and collaborative grievance resolution simply represent good business practice both in managing social and environmental risk and in furthering project and community development objectives. The project will therefore operate Project Based GRM, briefly explained below.

Types of complaints that may arise as a result of project implementation were identified. Such types of complaints include: (i) interference with cultivated land and crops, due to construction works; (ii) physical damage and nuisance due to construction and/or operational activities of the project; (iii) road accidents involving vehicles and machines used for the project's construction works; (v) noise and vibration, and consequences on properties and the health of communities in the vicinity of the project's intervention areas; (vi) obstruction of access as a result of construction works related to the project; (vii) gender-based violence involving project workers from the Contractor staff. The complaints management process should be based on the following key principles:

- *Transparency and justice*: The process for resolving grievances and complaints should be transparent, considering local social and cultural aspects, such as the local language. The GRM should allow access to judicial or administrative resources for all PAPs.
- *Accessibility and culturally appropriate*: All PAPs should have access to the GRM and its respective procedures and communication channels. Any individual or group that is directly or indirectly affected by the Project's activities, as well as those who may have an interest in the Project or the ability to influence its outcome, positive or negatively, should have access to submitting complaints.
- *Social and participatory inclusion*: PAPs, vulnerable groups, members of associations and civil society are encouraged to take complaints and comments to the project management. Special attention must be paid to ensuring that disadvantaged people, marginalized groups, including those with special needs, have access to this MRR.
- *Openness and regularity of communication*: Existence of channels for individuals and groups to choose their preferred method of presenting complaints. Communication channels should be kept open throughout the entire process of resolving each complaint and for a maximum period of 6 months after the situation has been resolved. And later archived.
- *Written records*: All complaints should be recorded on the complaints form and tracked until final resolution.
- *Dialogue and site visits*: All complaints should be considered to warrant discussions with the complainant and a visit to the location where the problem occurs to verify the veracity and seriousness of the complaint, if appropriate, to obtain a first-hand understanding of the nature of restlessness.
- *Timely response and proportionality*: All complaints, whether simple or complex, should be handled and resolved as quickly as possible. The action taken on the complaint, or suggestion should be quick, decisive, and constructive.
- *Feedback to complainant*: Feedback received by the grievance process date must be incorporated into the project and must be reported to the complaints.

In summary and consistent with international standards, the GRM includes the following five-step procedure:

- Step 1: Grievance uptake (Receipt and Registration)
- Step 2: Sorting and processing grievance (Classification and Prioritization)
- Step 3: Acknowledgement and follow-up
- Step 4: Verification and Investigation
- Step 5: Grievance Resolution
- Step 6: Feedback (including Monitoring and Evaluation)

Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to the project-level grievance redress Mechanism (GRM). Project affected communities and individuals may submit their complaint to FIPAG Green line 700800680 OR 849821152. Complaints may be submitted at any time after concerns have been brought directly to the FIPAG attention, and FIPAG Management has been given an opportunity to respond.

World Bank Grievance Redress Service

WB has set up its own environmental and social complaints mechanism, the GRS, which is open to third parties. This mechanism aims to ensure an independent handling of complaints about the environmental and social impacts induced by WB-funded projects. A complaint may be submitted to this mechanism by anyone affected by a WB-funded project.

Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress

mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org

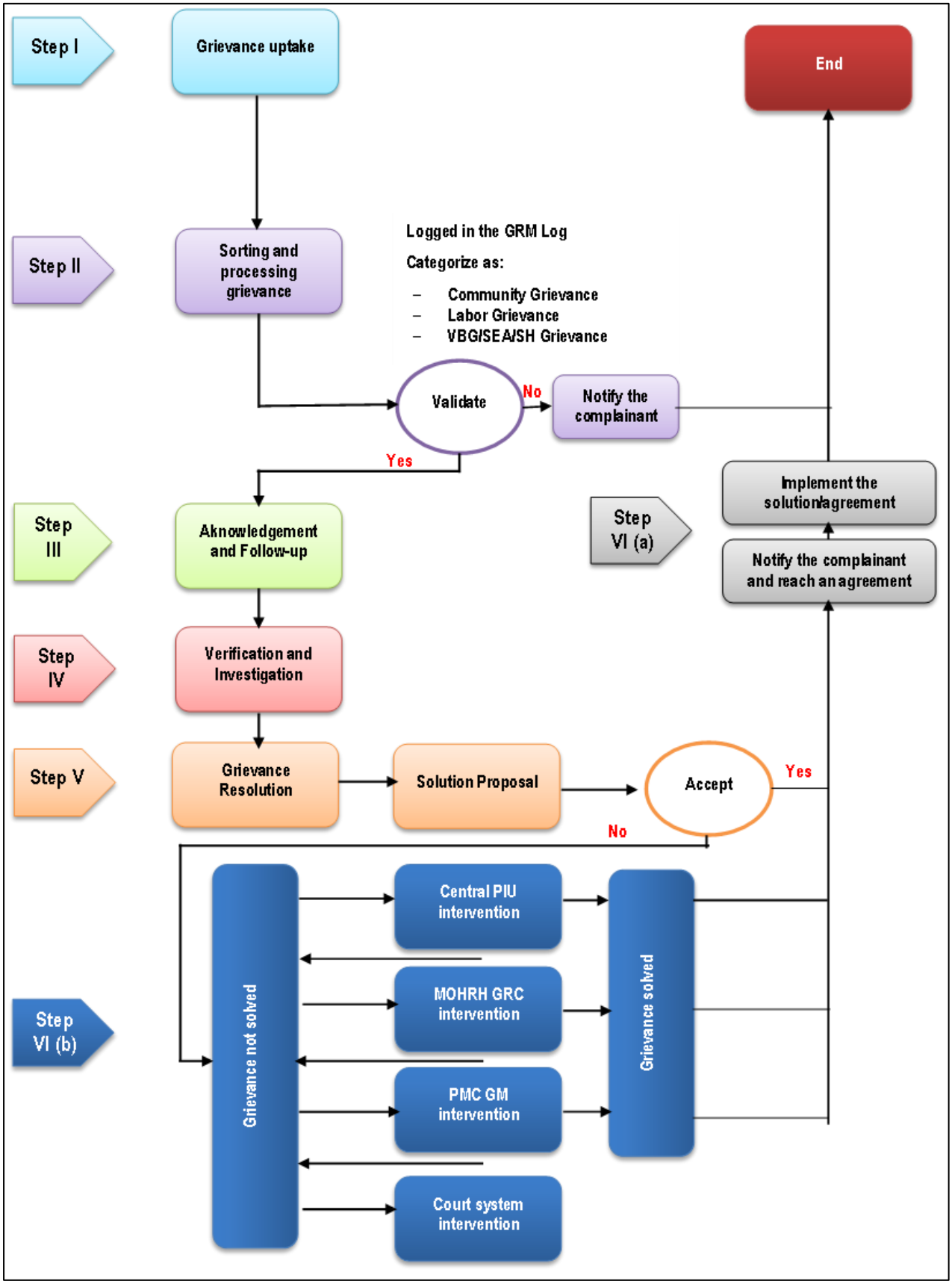


Figure 8 - Process Flow Chart of Grievance Redress Mechanism (GRM)

7.2.2 Stakeholder Engagement, Plan

A Stakeholder Engagement Plan (SEP) has been prepared to guide stakeholder engagement during project preparation and throughout implementation, and it is in accordance with the World Bank's Environmental and Social Standard 10 (ESS10). It also seeks to ensure that the views, concerns, and interests of project stakeholders, including local communities, are considered during project preparation and implementation. Please refer to the said SEP for details. Chapter 6 has provided a summary of stakeholder consultations undertaken as part preparation of the ESMF.

The Stakeholders Engagement Plan (SEP) defines the program for stakeholder engagement, including public information disclosure and consultation throughout the entire project cycle. It outlines ways in which the project team will communicate with stakeholders and includes a mechanism by which people can raise concerns, provide feedback, or make complaints about project activities or any activities related to the project. The project will apply the following principles during its for-stakeholder consultation: openness and life cycle approach; informed participation and feedback; inclusiveness and sensitivity; special attention must be given to vulnerable groups; commitment; integrity; respect; transparency; trust; and ethical considerations.

Consultations should form an integral part of the environmental and social project instruments. To effectively conduct consultations with the identified stakeholders, including local communities, government entities, international organizations, civil society organizations, and affected individuals, various consultation methods are to be employed namely the following:

- *Formal meetings*: presentation of project information to the PAPs, with a view to capturing opinions, as well as building an in-depth and impersonal relationship with the PAPs.
- *Public consultations*: presentation of Project information to a large group of PAPs, especially directly affected communities, allowing the group to provide views on aspects of the project of concern.
- *Stakeholder group*: Specific stakeholder groups, such as women, young girls, youth, and men.
- Preparation and distribution of leaflets about the project: Leaflets with brief and specific information about the Project will be prepared and distributed to the stakeholders.
- *Media:* Local media such as national television, national radio, and local community radio, posters, billboards, among others will constitute another avenue for disclosure of information about the project.
- *Use of electronic correspondence and telephone communication*: This avenue will serve to distribute information to public servants/officials and relevant provincial governments, NGOs, relevant organizations/agencies all about the project.

The stakeholder's identification is a critical component of the SEP. Identification and analysis of stakeholders will help FIPAG to know the key stakeholders, their location, their interests and issues, levels of influence, what motivates them and what they are looking for in relationship to the project activities. The categorization of stakeholders according to how they will be affected (directly or indirectly) by the implementation of the project; level of intervention and influence on project implementation, has been made and it is detailed in the SEP.

Different levels of stakeholders are identified and includes the Interested Institutions Local Government; Non-Governmental Organizations; Local Communities; and Disadvantaged/Vulnerable Individuals or Groups.

The strategy for consultation process, disseminating information and public participation within the scope of the SEP has the following main objectives: (i) Allow understanding of the needs of direct and indirectly project affected people; (ii) Ensure coordination between all those involved in the implementation, government authority structures at their different levels relating to the PAPs; (iii) Allow and guarantee the reception of feedback and comments from PAPs, as well as reception of complaints and suggestions regarding the design and implementation of the project; and (iv) Ensure transparent service delivery by the parties involved in the implementation of the Project, including the management of information received whose responses can be taken back to the PAPs to allow adjustments to interventions throughout the Project life cycle.

The SEP will support the implementation of the Project's Environmental and Social Management Framework (ESMF), the design of site-specific instruments (ESIA/ESMP) and guide the stakeholder engagement process. The Project should recruit and maintain a Social Specialist with communication skills who will lead the implementation of the SEP and be responsible for all aspects related to engagement with PAPs.

FIPAG and other relevant institutions for project implementation will oversee the stakeholder engagement activities. The budget for the SEP is $430.525,00 for the entire period of project implementation and will be updated throughout the life cycle of the project, depending on the development of social activities. Details of the budget are presented in chapter 5 of the SEP. The budget should be included in component 4 of the project.

7.2.3 Labour Management Procedures

The Labor Management Procedure has been developed to set the way in which project workers will be managed in accordance with the requirements of Mozambique Labor and Employment Laws and World Bank's Environmental and Social Standard 2 (ESS2) –Labor and Working Conditions. The Labor Management Procedures (LMP) apply to project workers including full-time, part-time, temporary workers, etc. The LMP is applicable, per ESS2, to the project in the following manner:

- People employed or engaged directly by the Government (including the project proponent/FIPAG and the project implementing agencies) to work specifically in relation to the project (direct workers).
- People employed or engaged through third parties to perform work related to core functions of the project, regardless of location (contracted workers). 'Third parties may include contractors, sub-contractors, brokers, agents or intermediaries.
- People employed or engaged to provide community labor (community workers) as that term is identified in paragraphs 34-38 of ESS2; and
- People employed or engaged by Government's primary suppliers (primary supply workers) – are those suppliers who, on an ongoing basis, provide directly to the project goods or materials essential for the core functions of the project identified in paragraphs 39-42 of ESS2.

The Labor Management Procedure (LMP) has been developed to manage labor risks during the implementation of the project." It is recommended that the key aspects of the LMP, including those of other E&S instruments, should be incorporated in the bidding documents and contracts for implementation. Details of LMP are in a separate LMP drafted as a Stand-alone-document.

7.2.4 Chance Finds Procedure

Cultural heritage encompasses tangible and intangible heritage which may be recognized and valued at a local, regional, national, or global level. Tangible cultural heritage, which includes movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Tangible cultural heritage may be located anywhere and may be above or below land or under the water. Intangible cultural heritage, which includes practices, representations, expressions, knowledge, skills—as well as the instruments, objects, artefacts, and cultural spaces associated therewith— that communities and groups recognize as part of their cultural heritage, as transmitted from generation to generation and constantly recreated by them in response to their environment, their interaction with nature and their history.

If during construction, sites, resources, or artifacts of cultural value are found, the following procedures for identification, protection from theft, and treatment of discovered artefacts should be followed and included in standard bidding documents. These procedures consider requirements related to Chance Finding under the national Law No. 10/88 of December 22, Law on the Protection of Cultural Heritage, and the Regulation for the Protection of Archaeological Heritage (Decree nº 27/94, of 20 July).

If a cultural object/artefact is unexpectedly found, the following procedures should be followed:

- Stop the construction activities in the area of chance find temporarily.
- Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a guard shall be arranged until the responsible local authorities take over. These authorities are the Ministry of Education and Culture, which must be communicated within 48 hours through the local authority.
- The National Directorate of Cultural Heritage is responsible for designating, within a period not exceeding thirty days after receiving notification, an inspector to supervise the protection measures and prepare a report, within a maximum of 60 days after notification, with an opinion on the importance and content of discovered elements and proposal of the most advisable measures, carried out after prospecting or excavations.
- If the National Directorate of Cultural Heritage determines that chance find is a non-cultural heritage chance find, the construction process can resume.

If the National Directorate of Cultural Heritage determines chance find is an isolated chance find, the National Directorate of Cultural Heritage would provide technical supports/advice on chance find treatment with related expenditure on the treatment provided by the entity report the chance find.

7.2.5 GBV Risk Assessment and SEA/SH Prevention and Response Action Plan

Recognizing that infrastructure projects can exacerbate existing gender inequalities and vulnerabilities, this plan ensures that all stakeholders, including project personnel, contractors, and community members, operate within a framework that prioritizes safety, dignity, and rights-based approaches for all individuals, particularly women and girls.

The key objectives of this action plan are to identify and assess potential GBV/SEA/SH risks within the project's scope and implementation areas. It establishes preventive measures, including codes of conduct, training programs, and awareness campaigns to promote a zero-tolerance policy for GBV-related misconduct. The plan ensures safe, accessible, and survivor-centered response mechanisms, including healthcare, psychosocial support, legal assistance, and emergency protection services for GBV survivors. It strengthens institutional and community engagement by enhancing stakeholder participation, including women's organizations, youth groups, and local authorities in GBV prevention and response efforts. It integrates monitoring and evaluation mechanisms to track implementation, ensure compliance with World Bank regulations, and provides a continuous learning framework for GBV risk mitigation.

The GBV Action Plan applies to all components, personnel, and stakeholders involved in the project implementation areas across the target areas of Maputo Metropolitan Area, Moamba District, Xai-Xai City, Chibuto Town, Maxixe and Inhambane City.

The scope of this action plan includes project personnel and contractors, requiring all individuals employed or engaged in project activities, including contractors, subcontractors, consultants, and laborers, to adhere to GBV prevention policies, receive mandatory training on SEA/SH prevention, and comply with established codes of conduct. It also includes community members and project beneficiaries, ensuring that measures are in place to protect local populations, particularly women, girls, and other at-risk groups, from potential GBV, SEA, and SH risks linked to project activities, workforce presence, and infrastructure development. Government institutions and local stakeholders are also included, with the plan outlining coordination mechanisms with police units, healthcare providers, legal aid services, and social protection networks to ensure an effective multi-sectoral GBV response. A complaint and grievance redress mechanism will be established to provide a safe, confidential, and survivor-centered reporting system to enable survivors to seek assistance without fear of retaliation.
Monitoring and compliance measures will ensure periodic GBV risk assessments, audits, and corrective action plans in line with World Bank Environmental and Social Standards, particularly ESS1 on environmental and social assessment and ESS10 on stakeholder engagement and information disclosure.
The detailed SEA/SH Prevention and Response Action Plan is in annex 6 of this ESMF.

7.2.6 Reporting of Incidents and Accidents during Project Implementation

The respective Project implementers, Contractors, Supervision Consultants and Service Providers will report all the environmental and social incidences/ accidents to the FIPAG regularly for submission to World Bank in accordance with the World Bank Environmental and Social Incident Reporting Tool Kit (ESIRT, March 2023). FIPAG shall within24/ 48 hours of occurrence promptly notify WB of Serious/ Severe (based on the categorization provided below) Environmental, Social, Health and Safety (ESHS) incidents or accidents related to the Project which has, or is likely to have, a significant adverse effect on the environment, the affected communities, the public or workers including child abuse, gender-based violence, Sexual Exploitation and Abuse, fatality, hazardous spills, etc. Indicative and minor incidences will be reported to the World Bank through incidental, monthly and quarterly reports – showing the number of both the cumulative and the reporting period incidents. The reports should provide sufficient detail regarding the incident or accident, indicating immediate measures taken or that are planned to be taken to address it, and any information provided by any contractor and supervising entity, as appropriate. Within fifteen days after the incident/accident, in consultation with WB, FIPAG in close collaboration with the respective statutory Authorities (Police, INATRO, etc) shall undertake a Root-cause analysis (RCA) and develop a Safeguards Corrective Action Plan (SCAP) to be shared with WB, and this will include measures to prevent its reoccurrence, including actions, responsibilities and timelines for implementation, and monitoring program. The RCA shall be based on existing country processes, where available. Such incidence reporting (major and minor) will be included in relevant financing/Grant agreements with Project beneficiaries.

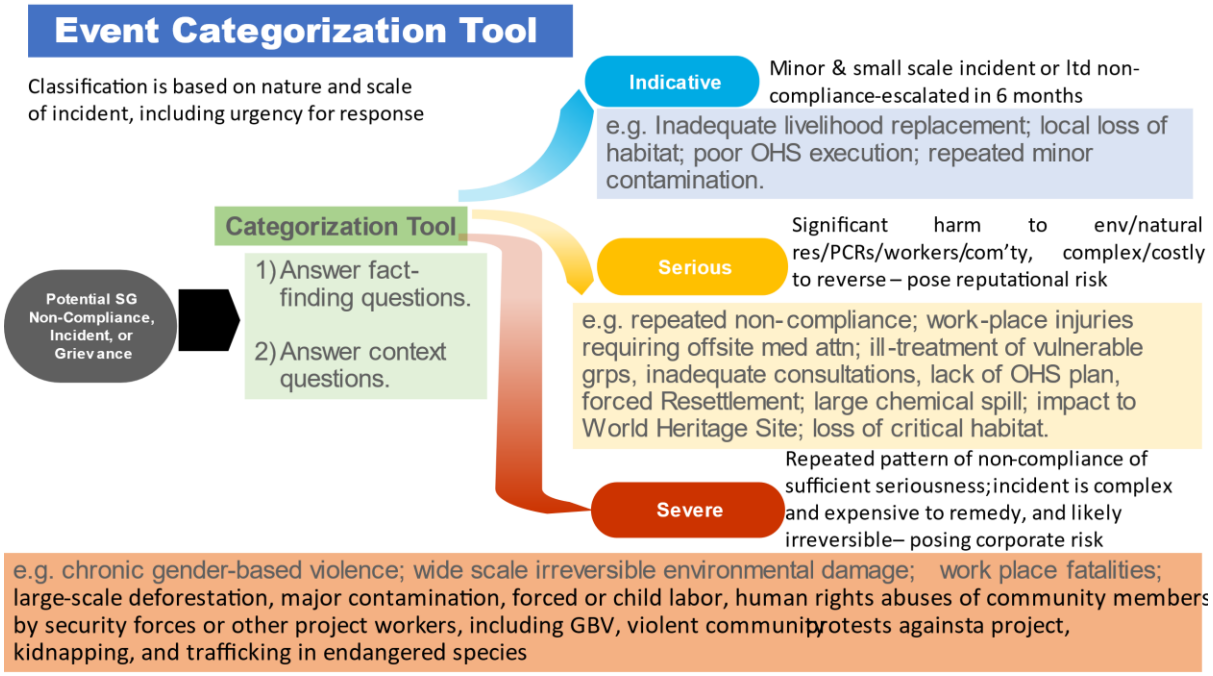


Figure 9 - Incidents/ Accidents Categorization under World Bank, ESIRT (2023)

An initial communication may take the form of an email, letter, social media, telephone call, conversation, or direct observation. It may come through communication from the Contractor to Supervision Consultants (RE), then to FIPAG for onward transmission to the World Bank. Incidents may also be reported to the Bank through the Bank's Grievance Redress Service (GRS), from a third party, or be discovered during implementation support/supervision missions.

- What was the incident? What happened? To what or to whom?

- Where and when did the incident occur?
- What is the information source? How did you find out about it?
- Are the basic facts of the event clear and uncontested, or are there conflicting versions?
- What were the conditions or circumstances under which the incident occurred?
- Is the event still ongoing or is it contained?
- Is loss of life or severe harm involved?
- What measures have been or are being implemented? By who?
- Has the Government been informed? What is their response (if any yet)?

7.2.7 Integration of Environmental and Social Aspects into the Procurement Process

During the project implementation phase, it is important to ensure integration of E&S aspects into the procurement processes, without which, implementation of the required mitigation measures will be curtailed. Procurement for works usually commences after the completion of the preparation of Engineering Designs and respective Environmental and Social Assessments for individual subprojects. The following key action points are recommended to be followed to ensure integration of E&S aspects into the procurement processes:

Bidding
During the bidding process, the Contractor will be expected to include a brief methodology of the implementation of the relevant environmental and social safeguards and attach the cost of implementation of these plans to his proposal bid. In addition, the Contractor will have to provide relevant staff for the implementation of E&S management including an Environmental Specialist, Health and Safety Specialist, Social Specialist, and Community Liaison Officers. Lastly, the contractor must prove prior experience in adequately managing safeguards issues in the water sector. The key aspects to be included in the contracts for civil works are highlighted below:

Bill of Quantities
The bill of quantities (BoQs) must capture all relevant safeguards aspects. These should include safeguards staffing, documentation (requirement to prepare Contractor's Environmental and Social Management Plan (C-ESMP), waste management, HIV/AIDS, grievance redress, gender awareness, site clean-up and landscaping, monthly C-ESMP reporting among others. Laxity in the provision and use of personal protective equipment is a risk to the safety of workers. The BoQs should provide a sum for PPE and supervision be done to ensure that all workers undertake works while in full PPE.

E&S Management Clauses
As a best practice, the contracts for civil works should include clauses on management of environmental and social aspects. Sometimes, the clauses are weak and cannot be used to hold the contractors accountable. There is a need to strengthen the clauses and to tailor them to the specific project E&S safeguards aspects and management needs. A sample list of E&S Specifications for Contractors is provided under Annex 4 of this ESMF.

Staffing
It is common for contractors to recruit unqualified safeguards staff or to assign safeguards duties to site foremen or clerks of works with no prior safeguards experience. Staffing requirements should be spelt out in the contracts. In addition, it may be useful to include the minimum requirements in the contracts for civil works. Therefore, FIPAG through supervising consultants must approve the contractor's key E&S staff, namely: Environmental Officer, Health and Safety Officer and the Sociologist.

Contractor's ESMP and Monitoring

The Contractor shall be required to prepare a Contractor's ESMP (C-ESMP) based on the Project's ESMP. The ESIAs should clearly spell out what should be contained in the Contractor's ESMP based on the site-specific E&S conditions and the respective E&S management/ implementation sub-plans.

Laxity in implementation and reporting on safeguards issues is common amongst contractors largely because they do not take safeguards issues seriously. This can be addressed by requiring contractors to prepare monthly environmental and social monitoring reports. These should either be pay items and clearly included in the BoQs or a condition for certification and payment approvals. Contractor safeguards reports are usually characterized by failure to include useful monitoring indicators such as safety statistics (fatalities, minor injuries, near misses, etc.), number of trees cut, and number replanted amongst others. The contractors will require training in safeguards monitoring and reporting. The contractors need to undertake proper recordkeeping of all safeguards' activities. The contractors should liaise with Provincial and District technical E&S offices to ensure proper monitoring and timely implementation of project activities.

Decommissioning and Restoration of Disturbed Areas

At the end of the construction period, the Contractor must ensure restoration of all disturbed areas including materials sites through proper landscaping, backfilling, and restoring topsoil, (re-) introduction of genetic species (e.g. natural re-grassing) similar to those destroyed in order to re-establish the natural local ecology. The final payment must be tagged to successful restoration activities, verified, and approved by FIPAG in collaboration with MAAP, where necessary.

8 CAPACITY BUILDING AND TRAINING

The successful implementation of the Mozambique Urban Water Security Project will depend, among other factors, on the effective application of the environmental and social management measures described in the project's environmental and social management instruments. To ensure the complete implementation of these measures, it is essential to develop a training plan targeting the various stakeholders involved operational and beneficiary audiences addressing specific topics related to the operationalization of the Environmental and Social Management Framework (ESMF).

All parties involved in the project's implementation, namely the National Directorate of Water Supply and Sanitation (DNASS), the Regional Water Administrations (ARA), the Water and Sanitation Infrastructure Administration (AIAS), the Water Supply Investment and Asset Fund (FIPAG), and the Water Regulatory Authority (AURA), must receive detailed information about the project's objectives, guidelines, and strategies, as well as fundamental concepts of environmental management and applicable legislation.

Concerning the public and affected communities, the training plan should include specific training activities from the beginning of the project's implementation, aiming to promote greater community participation and strengthen local monitoring mechanisms and the Grievance Redress Mechanism (GRM).

Project managers and technical staff responsible for implementation must receive adequate training to assist in project preparation, management, and monitoring, including identifying environmental and social impacts and properly implementing preventive and mitigation measures. Managers also have the responsibility to ensure that all activities comply with national environmental and social legislation, as well as with the World Bank's environmental

and social standards. Managers must ensure the dissemination and understanding of the procedures defined in the ESMF, especially during the preparation of subprojects and their respective technical and environmental documents.
Within the scope of this ESMF, the general training objectives are:

- To raise awareness among all stakeholders about the interconnections between the environment, social impacts, and the activities developed under the subprojects in the target areas.
- To clearly demonstrate the roles and responsibilities of different key actors in implementing and monitoring the environmental and social management instruments (ESMF, Environmental and Social Impact Assessments - ESIAs, Environmental and Social Management Plans - ESMPs, Stakeholder Engagement Plan - SEP, Resettlement Policy Framework - RPF, Resettlement Action Plans - RAP, among others).
- To build the capacity of community representatives and leaders to effectively communicate to their communities about the implementation and management of mitigation measures and their role in achieving environmental and social sustainability.
- To ensure that technical teams, both at the central and local levels, are capable of leading, guiding, and effectively supervising the implementation of the components and instruments defined in the ESMF.
- To ensure participants can identify, analyze, and mitigate potential environmental and social impacts, as well as effectively monitor the implementation of management plans.
- To strengthen the technical capacity of Non-Governmental Organizations (NGOs) and local teams to provide continuous technical support to the direct beneficiaries of the project.

It is acknowledged that different stakeholders have specific and varied awareness and training needs; therefore, the training plan must be comprehensive, flexible, and adapted to local and institutional realities.

8.1 Identification of Training Needs

For the Mozambique Urban Water Security Project to achieve its objectives, it is essential to accurately identify training and capacity-building needs among key stakeholders involved in project implementation. An in-depth assessment of existing knowledge, skills, and institutional capabilities was conducted during initial consultations and engagements. These consultations highlighted several critical gaps and areas requiring targeted training and capacity enhancement. Then, the key areas identified for focused training and capacity-building interventions include:

- Comprehensive understanding and practical application of the World Bank Environmental and Social Framework (ESF), including its policies, guidelines, and operational procedures.
- Introduction to the project, description of each project Component and Implementation requirements and coordination/ management arrangements.
- Emergency preparedness and response procedures, WB Vs GoM Categorization and Reporting of incidents/ accidents, reporting of incidents and accidents, undertaking of Root Cause Analysis (RCA), preparation of Safeguards Corrective Action Plan (SCAP), maintaining incidents log.
- Understanding Mozambique's Environmental and Social Management Process, requirements of each, including their integration with WB-ESF.
- Detailed knowledge of the implementation and compliance requirements of the Environmental and Social Management Framework (ESMF), emphasizing roles and responsibilities among different stakeholders' groups.
- Capacity development in environmental and social impact screening, scoping, and assessment procedures to identify, mitigate, and manage potential impacts effectively.

- Training on the design, development, and effective implementation of Environmental and Social Management Plans (ESMPs), including tools and techniques for monitoring and reporting progress.
- Skills enhancement in environmental and social monitoring methodologies, data collection, documentation, and regular reporting to ensure accountability and transparency.
- Strengthening capabilities in managing community and worker health and safety risks, including preventive measures, response plans, and best practices for occupational safety.
- Awareness and practical training for the prevention, identification, reporting, and management of gender-based violence (GBV) and sexual harassment (SH) cases within project contexts.
- Capacity building in establishing and operating effective grievance redress mechanisms, including grievance registration, tracking, resolution processes, and stakeholder engagement best practices to facilitate open communication and community participation.
- Climate change risk assessment, Occupational Health and safety issues, Road safety assessment and audit, Environmental Management, air and noise monitoring, using kobo collect in undertaking various E&S studies.

Tailored and systematic training programs addressing these specific gaps will significantly enhance stakeholder competencies, ensuring effective implementation of the project's environmental and social safeguards, ultimately contributing to the project's sustainability and positive outcomes.

8.2 Training Program

Practical approaches to reaching all target groups will need to be designed for assessing training and capacity-building needs, as well as for implementing effective training sessions. The training program will be structured as shown in the table below.

Table 6 - Proposed Training Program

Participants	Training Materials	Modality	Duration	Trainer
FIPAG, DNASS, AURA, AIAS, ARA-Sul	ESMF Guidelines, World Bank Policies,	Workshops	3 days	World Bank, MAAP, MPWHWR Experts
FIPAG, DNASS, AURA, AIAS, ARA-Sul	Environmental, Legislation Documents	Presentations	One day	Environmental & Social Specialists
FIPAG, DNASS, AURA, AIAS, ARA-Sul	Waste Management; Emergency preparedness and response; Gender mainstreaming in construction works; Combatting, and	Presentations	3 days	Environmental & Social Specialists

	monitoring of HIV/AIDS; Combat pandemic diseases such as COVID 19; Contractor and Operator management on environment and social risks; Grievances management implementation and monitoring; Land acquisition and resettlement; Gender-based violence/Sexual Exploitation and Abuse; Labor and Working Conditions, including employer compliance with national labor laws, and combatting child labor and forced/trafficked labor; Resettlement and Livelihood Restoration.			
Contractors & Workers	Occupational Health & Safety Manuals, Occupational health and safety.	On-site Training,	2 days	FIPAG, AIAS, ARA-Sul Trainers
Contractors & Workers	PPE Usage Guides, Emergency Protocols Codes of conduct for project workers Traffic Management Plan.	Practical Exercises	2 days	Contractors' E&S Officers

Municipalities & Local Authorities	ESMF Guidelines, Monitoring Tools, Monitoring of the ESIAs/ ESMP and ESMF implementation	Workshops	2 days	FIPAG, DNASS, AURA Specialists
Municipalities & Local Authorities	GRM Procedures	Presentations	2 days	Local Government Representatives
Community Leaders & CSOs	Community Engagement Guides. Stakeholder mapping and engagement Community Health and Safety	Awareness Meetings,	1 day	FIPAG, AIAS, ARA-Sul Representatives
Community Leaders & CSOs	GBV/SEA/SH Awareness Materials	Workshops	1 day	Community Liaison Officers
Operations & Maintenance Teams	OHS Guidelines, Environmental	Practical Training	1 day	Contractors' E&S Officers
	Compliance Checklists	On-site Exercises	1 day	Contractors' E&S Officers

The training program will be designed to be participatory and adaptive, ensuring that all stakeholders, particularly contractors, local authorities, and community members, are adequately informed and equipped to effectively implement the ESMF and other environmental and social instruments prepared to the project, as well as ensure compliance with the Environmental and Social Systems Assessment (ESSA) requirements.

8.3 Institutional Strengthening

The collaborating institutions under the Mozambique Urban Water Security Project will include the key implementing agencies such as the Fundo de Investimento e Património de Abastecimento de Água (FIPAG), National Directorate of Water Supply and Sanitation (DNASS), Water Regulatory Authority (AURA), Regional Water Administrations (ARA-Sul), and Water and Sanitation Infrastructure Administration (AIAS). These agencies will work closely with various stakeholders, including the Ministry of Public Works, Housing and Water Resources (MPWHWR), Ministry of Health, Municipalities, local authorities, and other relevant project beneficiaries.

Additionally, other institutions directly involved in the implementation of the project may include the Ministry of Agriculture, Environment, and Fisheries (MAAP), through the State Secretariat for Environment (SEA), Provincial Directorates of Land and Environment (DPTA),

Environmental National Directorate (DINAB), and National Administration of Conservation Areas (ANAC). Each of these institutions will require tailored capacity enhancement in environmental and social management according to their roles and levels of involvement in project activities.

Capacity-building initiatives will focus on strengthening the institutional capacity of all agencies to effectively implement the Environmental and Social Management Framework (ESMF) and meet the requirements of the Environmental and Social Systems Assessment (ESSA). National and international universities or specialized training institutions may be invited to provide technical support in capacity building or mentoring programs.

Despite the existence of staff handling environmental and social safeguards within FIPAG, AIAS, DNASS, and AURA, most provincial and district-level authorities require additional support through customized training programs and improved access to operational equipment and resources.

Training activities will initially be provided during the Project Launch Workshop, facilitated by the World Bank, Ministry of Agriculture, Environment, and Fisheries, MPWHWR, and relevant agencies to introduce the requirements of the ESMF and ESMS processes, including the preparation of site-specific Environmental and Social (E&S) instruments and their effective implementation.

Furthermore, FIPAG, AIAS, DNASS, and ARA-Sul, in collaboration with Provincial and District Authorities, will conduct awareness-raising and capacity-building activities targeting key stakeholders and affected communities in the project areas. Special emphasis will be placed on enhancing their understanding of environmental, social, health, and safety (ESHS) issues throughout the project cycle to ensure they can make informed decisions and request technical support whenever necessary.

Practical training sessions will be organized by Environmental and Social Specialists from FIPAG, AIAS, and ARA-Sul, working through local authorities to build stakeholders' awareness and knowledge on environmental and social issues associated with project activities. The training will also aim to enhance the capacity of local communities to actively participate in identifying appropriate mitigation measures, minimizing potential negative impacts, and effectively addressing grievances that may arise during project implementation. This structured approach to capacity development and training will contribute to building a robust institutional framework capable of supporting the effective implementation of the Mozambique Urban Water Security Project.

8.3.1 Targeted Training Participants

The following officers and institutions will be prioritized to participate in the training workshops:

- **FIPAG, AIAS, AURA, DNASS, and ARA-Sul:** Environmental and Social Safeguards Specialists, Project Coordinators, Procurement Specialists, Financial Management/Monitoring and Evaluation Specialists, E&S focal persons at provincial and district levels.
- **Participating Government Agencies:** Relevant ministries, municipal and provincial authorities, and regulatory bodies involved in the project.
- **Supervision Consultants and Service Providers:** Resident Engineers, E&S Specialists, Clerks of Works, and others providing technical assistance.
- **Contractors and Individual Staff:** Contract Managers, E&S Officers, Operations and Maintenance Teams (particularly before the handover of each subproject).
- **Communities Benefiting and Affected by the Project:** Local leaders, community-based organizations (CBOs), and direct beneficiaries involved in monitoring and feedback processes.

8.3.2 Subsequent Training Programs

Quarterly E&S training sessions will target the following:

- **E&S focal persons at Project Implementing Agencies:** Including FIPAG, AIAS, AURA, DNASS, and ARA-Sul representatives.
- **Supervision Consultants:** Resident Engineers, E&S Specialists, Clerks of Works actively monitoring the project's environmental and social performance.
- **Contractors:** Contract Managers, E&S Officers responsible for on-site compliance with E&S measures.
- **Operations and Maintenance Teams:** To ensure readiness and compliance with environmental and social standards before the handover of completed subprojects.

Other stakeholders to participate in E&S training will be identified during the implementation phase based on the prevailing circumstances and needs at each given time. The follow-on training programs will be developed by the E&S Specialists at FIPAG, AIAS, and ARA-Sul, in consultation with the World Bank, and customized as applicable to address specific challenges and areas requiring capacity enhancement.

9 MONITORING AND REPORTING REQUIREMENTS

The FIPAG will put in place adequate institutional arrangements, systems and resources to ensure effective monitoring of the ESMF, and the relevant plans associated with implementation of the Project.
The goals of monitoring will be:

- To measure the success rate of implementation of project activities.
- Determine the effectiveness of the mitigation measures to the negative impacts.
- Determine further interventions (such as mitigation) required to enhance implementation of the project; and
- Complying with the World Bank ESSs, World Bank Group EHS Guidelines and the national environmental and social requirement.

The goal of monitoring activities is to ensure that component activities comply with the plans and procedures laid out in the ESMF. Monitoring responsibilities and inspection activities will be carried out by FIPAG, and other beneficiary institutions who will administer the overall project-related environmental and social monitoring and implementation as laid out in this ESMF through their Environmental and Social specialists.

9.1 Monitoring Indicators

The ESMF M&E outcome indicators should contribute to ensuring that:

- E&S screening of all subprojects is being undertaken and issues identified in the screening are being addressed. If not, the FIPAG, other implementing institutions, contractor/ service providers (Consultants) must develop and present for approval a plan to regain and/or maintain future compliance.
- E&S instruments specific to subproject level are being prepared in line with the guidance provided in the respective frameworks. Where an ESIA and or an ESMP is developed, all the commitments with regard to E&S impact mitigation, monitoring, training of workers, etc. have been implemented. If not, the FIPAG shall develop and agree to a plan to regain and maintain future compliance.
- New environmental or social concerns that may have arisen because of the project implementation and operations are addressed and documented.
- If the environmental and social concerns identified are deemed significant by the FIPAG may need to modify the applicable instruments (e.g. ESMPs) to reflect a need for ongoing work to address the new impacts. Information on this new plan will be provided in the annual report and or be required shortly thereafter.

- Implementation of all the requirements specified in the ESCP, following the 10 ESSs.

9.2 Reporting Requirements

Being the main implementing and coordinating Government Agency, FIPAG will on a quarterly and Annual basis prepare and submit to WB monitoring progress reports on the environmental, social, health and safety (ESHS) performance of the Project, including but not limited to, the implementation of the ESCP, status of preparation and implementation of E&S documents required under the ESCP, stakeholder engagement activities, serious/severe incidents/ accidents, and the functioning of the grievance mechanism. Besides the quarterly implementation support mission, and annual reports, the reporting period may vary from time to time, depending on the nature of ongoing activities, and this may range from monthly or activity-based reports. Depending on the nature of the intervention and availability and or need for close follow up, more frequent monitoring visits can be made to projects that show any signs of risks or impacts.

The annual environmental, social, health and safety reports should also be submitted to the MAAP/AQUA/SPA. The findings from the regular monitoring and inspection for compliance on Environmental and Social risk management (monitoring reports) will be compiled by the individual Contractors, Supervision Consultants, Service Providers and sent to the FIPAG for review, validation and compilation. These quarterly monitoring reports, along with a quarterly summary of the ESMF implementation prepared by the FIPAG, will be consolidated by the Environmental and Social specialists assigned to support the project and the TTL will share the reports with the World Bank for review, after which the reports may be shared with other interested stakeholders by FIPAG.

The Environmental and Social Progress Reports should provide implementation progress as per contractual obligations that should be developed by Contractors during works execution (monthly and quarterly progress reports) for the whole project periods. The Progress Report contains basic information about project information, project implementation stage, monitored parameters, the Contractors' staffing, construction materials, waste management, OHS issues, GRM issues, mitigation measures undertaken, the E&S challenges as well as recommendations. The report can be shared with the WB and other stakeholders for review.

9.3 Project Closure Environmental and OSH Audit

Before closure of project implementation (six months to closure), FIPAG shall commission an independent Environmental and Social Audit with a view of identifying any residual issues which will require to be addressed and/or followed up before and after project implementation. Individual sub-projects E&S Audits shall be undertaken before completion and/or handover of the individual sites for operations phase, with a view of identifying any E&S issues which may require correction as the subproject moves into operation phase.

In addition, Annual Environmental and Social Audits shall be undertaken in accordance with Decree No 25/ 2011 which approves regulations on the Environmental audit process.

10 INSTITUTIONAL ARRANGEMENTS

This section outlines the institutional framework, describing relevant government bodies and authorities with jurisdiction over the Mozambique Urban Water Security Project. The project will be implemented through various agencies under the coordination of the Ministry of Public Works, Housing, and Water Resources (MPWHWR). The primary implementing agencies include FIPAG, DNASS, AURA, AIAS, and ARA-Sul, working in collaboration with relevant stakeholders such as Municipalities, Local Authorities, Ministry of Health, and Provincial Directorates of Land and Environment (DPTA).

10.1 Roles and Responsibilities

The implementation of the project involves clearly defined roles and responsibilities among various entities to ensure effective management of environmental and social risks.

- **FIPAG (Fundo de Investimento e Património de Abastecimento de Água):** The main implementing agency responsible for managing major civil works, ensuring compliance with E&S standards, and operating the Grievance Redress Mechanism (GRM). FIPAG will establish a Project Implementation Unit (PIU) for daily coordination, monitoring, financial management, and reporting.
- **DNASS (National Directorate of Water Supply and Sanitation):** Provides oversight on water supply and sanitation policies, standards, and guidelines, ensuring compliance with the Environmental and Social Framework (ESF).
- **AURA (Water Regulatory Authority):** Regulates water supply services, monitors service quality, and ensures adherence to environmental and social standards.
- **AIAS (Water and Sanitation Infrastructure Administration):** Manages small-scale infrastructure works, including local water supply systems, and ensures compliance with E&S safeguards.
- **ARA-Sul (Regional Water Administrations):** Oversees water resource management, including surface and groundwater monitoring, and integrates E&S requirements into water management activities.
- **MPWHWR (Ministry of Public Works, Housing, and Water Resources):** Provides overall coordination, policy direction, and support for the project.
- **Contractors and Service Providers:** Ensure compliance with environmental and social standards during project implementation and report on performance.
- **Local Authorities and Municipalities:** Facilitate local engagement, monitor activities, and support the implementation of mitigation measures.
- **Communities and Local Stakeholders:** Participate in consultations, provide feedback, and engage in monitoring activities.

10.2 Coordination and Collaboration

Effective coordination and collaboration mechanisms are crucial for the successful implementation of the project. These mechanisms will include:

- **Inter-ministerial Project Steering Committee:** Established by the Government to provide strategic oversight and decision-making. The committee comprises representatives from MPWHWR, FIPAG, DNASS, ARA-Sul, AURA, AIAS, Ministry of Economy and Finance**,** Ministry of Agriculture, Environment, and Fisheries **(MAAP)**, and other relevant stakeholders. Meetings will be held twice a year or quarterly as needed.
- **Regular Coordination Meetings:** Held between FIPAG, DNASS, ARA-Sul, AIAS, AURA, and other stakeholders to enhance communication and collaboration.
- **Project Implementation Unit (PIU):** Set up within FIPAG to oversee compliance with E&S requirements, staffed by:
    - **One Environmental Specialist**
    - **One Social Development Specialist**
    - **One Gender-Based Violence (GBV) and Gender Specialist**

- **One Environmental Advisor**

- **Grievance Redress Mechanisms (GRMs):** Implemented to address complaints effectively and ensure prompt resolution.
- **Collaboration with International Partners:** Ensuring alignment with best practices and standards.
- **Capacity Building Initiatives:** Workshops, guidelines, preparation of E&S instruments, and technical support to improve institutional capacity.

The PIU will be responsible for coordinating the implementation, monitoring, and reporting of E&S compliance for all project activities. Clear roles, responsibilities, and collaboration mechanisms are essential to ensuring that the project adheres to the Environmental and Social Framework (ESF) of the World Bank and achieves its intended objectives.

11 BUDGET AND FINANCING

The implementation of the Environmental and Social Management Framework (ESMF) for the Mozambique Urban Water Security Project requires adequate funding to support essential activities, including capacity building, stakeholder engagement, monitoring, and reporting.

Under Component 4 (Project Management), funds will be allocated to develop training materials, conduct training sessions, and establish monitoring systems. The Government of Mozambique (GoM), through agencies such as FIPAG, DNASS, AURA, AIAS, and ARA-Sul, will ensure compliance with the World Bank's Environmental and Social Framework (ESF).

11.1 Cost Estimation

The estimated budget for implementing the ESMF covers various activities required to manage environmental and social risks effectively. The table below outlines the budget allocation for each major activity.

Table 7 - ESMF Implementation Budget

Description	Annual Budget Estimates (USD, 000)					
	2025	2026	2027	2028	2029	TOTAL
E&S Screening, Scoping, and Development of TORs for ESIAs for the project.	35	40				***75***
Development of ESIAs for the project - hired Consultants	250	250	200			***700***
Subprojects supervision by project Environmental and Social Specialists at the project – Monthly and Quarterly site visits and Compliance Inspections.	20	30	50	50	25	***175***
Implementation of General Capacity Development Plan for Management of Environmental and Social Risks and Impacts in the project.	30	50	70	30	20	***200***

Description	Annual Budget Estimates (USD, 000)					
	2025	2026	2027	2028	2029	TOTAL
Strengthening Grievance Redress Mechanism structures and facilitating general Stakeholder Engagement as spelt out in the SEP.	30	40	50	20	20	***160***
Service provider for GBV/SEA/SH mitigation measures Implementation and related activities	75	125	125	75	50	***450***
Annual and Project Closure E&S Audits and			200	300	250	***750***
Total Annual Budget	***440***	***535***	***495***	***475***	***365***	**2460**

11.2 Financing Sources

The financing for the ESMF implementation will be sourced from:

- World Bank Funding (US$ 150 million): Primary financial support under the Mozambique Urban Water Security Project through Investment Project Financing (IPF) with Performance-Based Grants (PBGs).
- Government of Mozambique (GoM): Co-financing arrangements through relevant ministries and agencies such as FIPAG, DNASS, AURA, AIAS, and ARA-Sul.
- International Donors and Development Partners: Contributions through technical assistance, capacity-building initiatives, and additional co-financing where applicable.

Ensuring sufficient financial resources and effective financial management is essential to effectively mitigate environmental and social risks and ensure sustainable project implementation.

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ANNEXES

Annex 1 - Environmental and Social Screening Form

Subproject Name	
Subproject Location	
Subproject Proponent	
Estimated Investment	
Start/Completion Date	

Questions	Answer			ESS relevanc	Due diligence / Actions if "yes"
	Not Applicable	Yes	No		
1. Is the subproject likely to have significant adverse environmental impacts that are sensitive and unprecedented that trigger the 'Ineligible Activities' or other exclusion criteria?				ALL	If "Yes": Exclude from project.
2. Does the subproject involve civil works that include new/upgrading or rehabilitation of infrastructure				ESS 1	Site Specific ESIA and ESMP. Include E&S risk management measures in bidding documents
3. Will construction or renovation works require new borrow pits or quarries be opened?				ESS1	Site-specific and/ ESIA ESMP Include E&S risk management measures in bidding documents.

Questions	Answer			ESS relevanc	Due diligence / Actions if "yes"
	Not Applicable	Yes	No		
4. Is there sound regulatory framework, institutional capacity in place the sub-project?				ESS 1	ESMP, SEP[2]
5. Does the project site and facilities have any existing environmental liabilities (non-compliances, site contamination, etc.)?				ESS 1	ESMP
6. Does the project lead to any risks and impacts on individuals or groups who, because of their particular circumstances, may be disadvantaged or vulnerable.[3]				ESS1	If "Yes": Apply relevant measures described in the ESMF and SEP.
7. Does the subproject area present considerable Gender-Based Violence (GBV), Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH) risks?				ESS2, ESS4, ESS10	Assessment of risks and GBV/SEA action plan, SEP, ESMP

[2] SEP: Stakeholder Engagement Plan

[3] "Disadvantaged or vulnerable" refers to those individuals or groups who, by virtue of, for example, their age, gender, ethnicity, religion, physical, mental or other disability, social, civic or health status, sexual orientation, gender identity, economic disadvantages or ethnic peoples status, and/or dependence on unique natural resources, may be more likely to be adversely affected by the project impacts and/or more limited than others in their ability to take advantage of a project's benefits.

Questions	Answer			ESS relevanc	Due diligence / Actions if "yes"
	Not Applicable	Yes	No		
8. Does the subproject involve recruitment of workforce including direct, contracted, primary supply, and/or community workers?				ESS 2	Labor management Procedures (LMP), ESMP and, SEP
9. Does the subproject involve uses of goods and equipment involving forced labor, child labor, or other harmful or exploitative forms of labor?				ESS2	If "Yes": Exclude from project.
10. Does the subproject include an independent unit/or group for accountability and grievance and conflict resolution?				ESS 2	ESMP, SEP, GRM[4]
11. Will the workers be exposed to workplace hazards that needs to be managed in accordance with local regulations and EHSGs? Do workers need PPE relative to the potential risks and hazards associated with their work?				ESS2	If "Yes": Apply measures in the project LMP.
12. Is there a risk that women may be underpaid when compared to men when working on the project construction?				ESS2	If "Yes": Apply measures in the project LMP.

[4] GRM: Grievance and redress Mechanism

Questions	Answer			ESS relevanc	Due diligence / Actions if "yes"
	Not Applicable	Yes	No		
13. Is the subproject associated with any external waste management facilities such as a sanitary landfill, incinerator, or wastewater treatment plant and/ or significant generation of non-hazardous waste or hazardous waste?				ESS3, ESS4	If "Yes": Prepare a site-specific ESMP for the proposed subproject. Include E&S risk management measures in bidding documents. ESMP, WMP[5], SEP.
14. Does the subproject release airborne and/or water borne pollutants with concentration above the WHO / World Bank guidelines or National Guidelines?				ESS 3	ESMP, SEP
15. Does the subproject result in GHG emissions or black carbons?				ESS 3	ESMP, SEP
16. Does the subproject involve transboundary transportation of specimen, samples, infectious and hazardous materials?				ESS 3	WMP, SEP
17.Does the subproject use pesticides, and herbicides ?				ESS 3	IPPMP[6], ESMP

[5] WMP: Waste management Plan

Questions	Answer			ESS relevanc	Due diligence / Actions if “yes”
	Not Applicable	Yes	No		
18. Is there a risk of increased community exposure to communicable disease (such as COVID-19, HIV/AIDS, Malaria), or increase in the risk of traffic related accidents?				ESS4	If “Yes”: Apply measures in the project LMP and relevant measures in SEP.
19. Is an influx of workers, from outside the community, expected? Would workers be expected to use health services of the community? Would they create pressures on existing community services (water, electricity, health, recreation, others?)				ESS2, ESS4	If “Yes”: Apply measures in the project LMP.
20. Is there a risk that SEA/SH may increase as a result of project works?				ESS4, ESS10	If “Yes”: Apply measures in the project LMP & GBV/SEA/SH Action Plan
21. Would any public facilities, such as schools, health clinic, church be negatively affected by construction?				ESS4	If “Yes”: Apply relevant measures based on the Conditions of Contract provided in the ESMF (unless one of the other questions in the screening form raises specific environmental and social risks and requires a site-specific ESMP).
22. Will the subproject require the government to retain workers to provide security to safeguard the subproject?				ESS4	If “Yes”: Prepare a site-specific ESMP for the proposed subproject, including an assessment of potential risks and mitigation measures of using security personnel.

Questions	Answer			ESS relevanc	Due diligence / Actions if "yes"
	Not Applicable	Yes	No		
23. 20. Will the subproject require the involuntary acquisition of new land (will the government use eminent domain powers to acquire the land)?[7] 24. Will the subproject lead to temporary or permanent physical displacement (including people without legal claims to land)? 25. Will the subproject lead to economic displacement (such as loss of assets or livelihoods, or access to resources due to land acquisition or access restrictions)? 26. Are there any associated facilities needed for the subproject (such as access roads or electricity transmission lines) that will require the involuntary acquisition of new land?				ESS 5	If yes, prepare RAP (if more than 200 PAPs) or Livelihoods Restoration Plan (if less than 200 PAPs).

[7] Environmental and Social Standard 5, Footnote 10: "In some circumstances, it may be proposed that part or all of the land to be used by the project is donated on a voluntary basis without payment of full compensation. Subject to prior Bank approval, this may be acceptable providing the Borrower demonstrates that: (a) the potential donor or donors have been appropriately informed and consulted about the project and the choices available to them; (b) potential donors are aware that refusal is an option, and have confirmed in writing their willingness to proceed with the donation; (c) the amount of land being donated is minor and will not reduce the donor's remaining land area below that required to maintain the donor's livelihood at current levels; (d) no household relocation is involved; (e) the donor is expected to benefit directly from the project; and (f) for community or collective land, donation can only occur with the consent of individuals using or occupying the land. The Borrower will maintain a transparent record of all consultations and agreements reached."

Questions	Answer			ESS relevanc	Due diligence / Actions if “yes”
	Not Applicable	Yes	No		
27. Will the project involve the conversion or degradation of non-critical natural habitats?				ESS6	If “Yes”: 1. Prepare a site-specific ESMP for the proposed subproject. 2. Include E&S risk management measures in bidding documents.
28. Will this activity require clearance of mangroves?				ESS6	If “Yes”: Exclude from project.
29. Will this activity require clearance of trees, including inland natural vegetation?				ESS6	If “Yes”: 1. Prepare a site-specific ESMP for the proposed subproject. 2. Exclude from project if more that x hectares of tree and vegetation cutting is expected. 2. Include E&S risk management measures in bidding documents.
30. Will there be any significant impact on any ecosystems of importance (especially those supporting rare, threatened or endangered species of flora and fauna)?				ESS6	If “Yes”: Exclude from project.

Questions	Answer			ESS relevanc	Due diligence / Actions if "yes"
	Not Applicable	Yes	No		
31. - Will the project affect flora or fauna? 32. Does the subproject have a mitigation hierarchy for minimizing, mitigating and managing the adverse impacts and risks related to the potential threats to biodiversity?				ESS 6	Ecosystem/ Biodiversity Management Plan to be prepared as part of CESMP.
33. .Will a river or stream ecology be adversely affected due to the installation of structures such as bridges, fixed barriers, and by-passes. Attention should be paid to water quality and quantity; the nature, productivity and use of aquatic habitats, and variations of these over time?				ESS 6	Ecosystem/ Biodiversity management Plan to be prepared as part of generic ESMP and then detailed in the C-ESMP.
34. Are there any indigenous people "Sub-Saharan African Historically Underserved Traditional Local Communities" and vulnerable groups present in the subproject area and are likely to be affected by the proposed subproject negatively or positively?				ESS 7	Prepare Vulnerable Groups Planning Framework (VGPF) to inform sub-project Vulnerable Groups Plan (VGP), OR include the requirements of an Indigenous Peoples Plan in the SEP.

Questions	Answer			ESS relevanc	Due diligence / Actions if "yes"
	Not Applicable	Yes	No		
35. Does (or will) the subproject undertake free, prior, and informed consultations with affected Indigenous Peoples/and Sub Saharan African historically underserved communities				ESS 7	VGPF and VGP, SEP and GRM OR include the requirements of an Indigenous Peoples Plan in the SEP.
36. Is the subproject to be located adjacent to a sensitive site (historical or archaeological or culturally significant site) or facility?				ESS8	Undertake PCRs Inventory and include in ESIA/ESMP, SEP and GRM.
37. Locate near buildings, sacred trees or objects having spiritual values to local communities (e.g. memorials, graves or stones) or require excavation near there?				ESS8	Apply chance find procedures for construction activities
38. Did the proponent of the subproject carry out regular consultations with a wide range of project stakeholders				ESS10	ESMP, SEP and GRM
39. Can the stakeholders play a significant role in shaping or affecting the subproject, either positively or negatively				ESS 10	SEP and GRM

RECOMMENDATIONS AND CERTIFICATION
Environmental category: (tick where applicable)

Category (In line with ESF & Ug-NEA)	**Justification**
Exempt: Does not require further environmental or social assessment *(Sections 113 (3) & 182 (2) & Schedule 11 of NEA) – Projects exempted from ESAs* studies	
Low/ Moderate Risk: Requires submission of only a Project Brief or ESMP *(Section 112 & Schedule 4 of NEA)*	
Substantial/ High Risk: Requires a full/Mandatory ESIA to be submitted on date *(Sections 49 (1&2), 113, 126(2), 176(1), 177(1) & 181(2) & Schedules 5, 6, 10 of NEA)*	
Requires a RAP to be submitted on date	
Requires an Indigenous Peoples Plan (IPP)	
Requires a Physical Cultural Resources Plan	
Requires a Pest Management Plan	
Requires a Security Management Plan	

CERTIFICATION BY THE DISTRICT/ MUNICIPALITY E&S STAFF
(Environmental & Social Focal Officer)
We certify that we have thoroughly examined all the potential adverse effects of this subproject and recommended appropriate Risk Categorization and E&S Instrument/s to be prepared/used.
Reviewer/s Title: ……
Name/s and Contact/s (EM + TEL): ……
Signature/s: ……
Date: ……..

CERTIFICATION BY THE PROVINCIAL AUTHORITIES

(Provincial Environment & Social Focal Person/s)
We certify that we have thoroughly examined all the potential adverse effects of this subproject and recommended appropriate Risk Categorization and E&S Instrument/s to be prepared/used.
Reviewer/s Title: …….
Name/s and Contact/s (EM + TEL):
…….
Signature/s: ……
Date: ……..

CERTIFICATION BY THE UWSP Project PIU
(Project Environmental, Health and Safety Specialist & Project Social Development Specialist)
We certify that we have thoroughly examined all the potential adverse effects of this subproject and recommended appropriate Risk Categorization and E&S Instrument/s to be prepared/used.
Reviewer/s Title: …….
Name/s and Contact (EM + TEL):……
Signature/s: ……
Date: ……

PROJECT COORDINATOR'S APPROVAL
Screening Results were reviewed and approved by: (Project Manager)
Name_____
Position_____
Signature_____
Date_____

Annex 2 - Sample General TORs for preparation of Site-specific Subprojects ESIAs and ESMP Template

A. Sample Terms of Reference for preparation of Environmental and Social Impact Assessment

These TORs are provided in case there is need to undertake site-specific ESIA identified during E&S screening and shall be customized as appropriate.

I. Introduction and context

This section will be completed at the appropriate time and will provide the necessary information with respect to the context and methodological approaches to be undertaken.

II. Objectives of the study

This section will (i) outline the objectives and particular activities of the planned activity; and (ii) indicate which activities are likely to have environmental and social impacts that will require appropriate mitigation. (Adapted to specific activities)

or

III. Terms of Reference

The consultant will perform the following tasks:

a) Carry out a description of the biophysical characteristics of the environment in which the planned activity will take place and highlight the major constraints that need to be taken into account during construction as well as during operation of the facility.
b) Describe the proposed location and physical boundaries, including maps and coordinates, and site layout plans, of the project clearly showing the projected area of land or air that may be affected by the project activities, or, if it is a linear activity, a description of the route of the activity and analysis of site selection procedure and alternative routes.
c) A description of the manner in which the proposed project and its location conform to existing laws and standards governing such projects, including a reference to relevant plans required under the various National laws.
d) Assess the design of the project and any other project related components, including the activities that shall be undertaken and a description of the major material inputs to be used during construction or development and operation of the project.
e) Describe baseline conditions of the physical, biological and socioeconomic environment of the project area, including results of relevant studies and other geophysical and geotechnical studies. Carry out a description of the socio-economic environment of the planned investment, and highlight the major constraints that need to be taken into account during construction as well as during operation of the facility;
f) Assess the potential environmental, health, safety and social impacts due to construction or rehabilitation activities, and recommend mitigation measures to be taken as appropriate during the preconstruction, construction, operational and decommissioning phases of the project, including cost estimates;
g) Assess the potential environmental and social impacts due to the proposed subprojects that might be needed for the planned facility and make appropriate recommendations;
h) An assessment of climate- related impacts associated with the project, including potential climate benefits and carbon footprints of the proposed project, as well as the potential vulnerability of the proposed project or activity to climate change, and the proposed adaptation and mitigation measures;
i) Assess the need for liquid and solid waste collection, disposal and management in the facility, and make recommendations accordingly;
j) Discuss alternative project designs and make recommendations; including a zero or no project alternative in terms of project location, project design or technologies to be used, and a justification for selecting the chosen option;
k) Assess alternative project designs and make recommendations;

l) An assessment of alternative resettlement areas for project affected persons, if any or any plans of compensation;
m) An assessment of the secondary impact of the project and associated activities;
n) Carry out a review of the respective national environmental policies, legislation, regulatory and administrative/ institutional frameworks in conjunction with the donors' safeguard policies, indicate which of these policies is relevant to/ triggered by the planned activity, identify any gaps that might exist, and make recommendations as to how potential gaps should be bridged in the context of the planned activity;
o) Review the Conventions and Protocols to which the country is a signatory;
p) Provide an indication of permits, licenses or other approvals that may be required for the project;
q) Assess the country's environmental assessment and management capacity, as well as the capacity to implement the proposed mitigation measures, and make appropriate recommendations, including potential capacity building and training needs, and their costs;
r) Prepare an Environmental and Social Management Plan (ESMP) for the planned activity. The ESMP should outline (a) potential environmental and social impacts resulting from the activity; (b) proposed mitigation measures; (c) institutional responsibilities for implementation of the mitigation measures; (d) monitoring indicators; (e) institutional responsibilities for monitoring the implementation of the mitigation measures; (f) cost estimates for these activities; and (g) time horizons for implementing the ESMP.
s) Public consultations: ESIA results and proposed mitigating measures will then be shared with the potentially affected population, NGOs, local authorities and the private sector working in the area where the activity will take place. Minutes of this consultation will form an integral part of the report.

t) *Task 10: Cumulative Impact Assessment:* As part of the overall Environmental and Social Impact Assessment, develop a Cumulative Impact Assessment (CIA) to further assess the potential impacts and risks of the whole SRSEI project in its all phases, in the context of potential effects from other developments and natural environmental and social external drivers on a chosen Valued Environmental and Social Component (VECs) and determine if the project is incrementally responsible for adversely affecting an ecosystem component or specific characteristic beyond Environmental and Social Assessment for the CRRN project in Mozambique – an acceptable predetermined threshold (carrying capacity), at the scale and level of detail appropriate to the potential risks and impacts.
Specifically, the CIA should aim at achieving following objectives:

i. Assess the potential impacts and risks of a proposed development over time, in the context of potential effects from other developments and natural environmental and social external drivers on a chosen VEC.
ii. Verify that the proposed development's cumulative social and environmental impacts and risks will not exceed a threshold that could compromise the sustainability or viability of selected VECs.
iii. Confirm that the proposed project's value and feasibility are not limited by cumulative social and environmental effects.
iv. Support the development of governance structures for making decisions and managing cumulative impacts at the appropriate geographic scale (e.g., airshed, river catchment, town, regional landscape).
v. Ensure that the concerns of affected communities about the cumulative impacts of the proposed project are identified, documented, and addressed.
vi. Manage potential reputation risks related with the project.

IV. As appropriate, the combination or elements of the tools and methods to be employed for the ESIA study are:

a) **Environmental and Social Impact Assessment (ESIA):** The Consultant will undertake an Environmental and Social Impact Assessment (ESIA) to assess and identify the potential environmental and social risks and impacts of the proposed project, evaluate alternatives, and design appropriate mitigation, management, and monitoring measures.
a) **Environmental and Social Management Plan (ESMP):** The Consultant will prepare an Environmental and Social Management Plan (ESMP) detailing the mitigation measures to eliminate or offset the identified adverse environmental and social risks and impacts or to reduce them to acceptable levels, and devise enhancement measures for the positive impacts to be implemented during the implementation of the project, and the specific actions to implement these measures.

b) **Prepare the following ESIA annexes:**
   i. Occupational Health and Safety (OHS) plan
   ii. Community Health and Safety Plan, which will also include elements of LMP guided by the overall project LMP prepared during project preparation.
   iii. Biodiversity Management Plan (If the ESIA assessment establishes presence of natural and/or critical habitat). Otherwise, measures to protect vegetation/wildlife can be included in the ESMP.
   iv. Traffic Safety Management Plan
   v. Chance Find Procedures
   vi. Waste Management Plan
   vii. SEA/SH Action Plan

V. Key Expertise (to be customized as appropriate)

Required expert	Number	Education	Required experience
Environmentalist (Team Leader)	1	Master's degree in environmental management, environmental sciences or a related field.	Ten (10) years working experience with at least 7 years in conducting ESIA. S/he should have expertise and knowledge in the preparation of Environmental and Social Assessment and Environmental audit
OHS expert	1	Master's degree in occupational health and safety or a related field.	Minimum of 7 years post graduate experience on his/her profession, of which at least 4 years' experience working in area or similar nature of job. Experience for working as similar position at least in two similar assignments.
Social Experts.	1	Master's degree in Gender, Social Sciences, Demography or Development Studies or a related field.	Over 5 years of relevant experience in social impact assessment. Similar relevant work experience on at least three previous projects that used the participatory and community-based approach. A good understanding of the local context Zambia is mandatory.
GIS/RS Specialist	1	Bachelor's degree GIS, GIS and Remote sensing, Geomatics or a related field.	Minimum of 6 years of practical experience on his/her profession, of which at least 3 years' experience as working in area or similar nature of job. Experience for working as similar position at least in two similar assignments.

VI. Indicative Outline of the ESIA Report

Where an environmental and social impact assessment is prepared as part of the environmental and social assessment, it will include the following:

(a) **Executive Summary**

- Concisely discusses significant findings and recommended actions.

(b) **Legal and Institutional Framework**

- Analyzes the legal and institutional framework for the project, within which the environmental and social assessment is carried out, including the issues set out in ESS1, paragraph 26 of the ESF.
- Compares the Borrower's existing environmental and social framework and the ESSs and identifies the gaps between them.

- Identifies and assesses the environmental and social requirements of any co-financiers.

***(c)* Project Description**

- Concisely describes the proposed project and its geographic, environmental, social, and temporal context, including any offsite investments that may be required (e.g., dedicated pipelines, access roads, power supply, water supply, housing, and raw material and product storage facilities), as well as the project's primary suppliers.
- Through consideration of the details of the project, indicates the need for any plan to meet the requirements of ESS1 through 10.
- Includes a map of sufficient detail, showing the project site and the area that may be affected by the project's direct, indirect, and cumulative impacts (including off-site facilities).

***(d)* Baseline Data**

- Sets out in detail the baseline data that is relevant to decisions about project location, design, operation, or mitigation measures. This should include a discussion of the accuracy, reliability, and sources of the data as well as information about dates surrounding project identification, planning and implementation.
- Identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions.
- Based on current information, assesses the scope of the area to be studied and describes relevant physical, biological, and socioeconomic conditions, including any changes anticipated before the project commences.
- Takes into account current and proposed development activities within the project area but not directly connected to the project.

***(e)* Environmental and Social Risks and Impacts**

- Takes into account all relevant environmental and social risks and impacts of the project. This will include the environmental and social risks and impacts specifically identified in ESS2–8, and any other environmental and social risks and impacts arising as a consequence of the specific nature and context of the project, including the risks and impacts identified in ESS1, paragraph 28.

***(f)* Mitigation Measures**

- Identifies mitigation measures and significant residual negative impacts that cannot be mitigated and, to the extent possible, assesses the acceptability of those residual negative impacts.
- Identifies differentiated measures so that adverse impacts do not fall disproportionately on the disadvantaged or vulnerable.
- Assesses the feasibility of mitigating the environmental and social impacts; the capital and recurrent costs of proposed mitigation measures, and their suitability under local conditions; and the institutional, training, and monitoring requirements for the proposed mitigation measures.
- Specifies issues that do not require further attention, providing the basis for this determination.

***(g)* Analysis of Alternatives**

- Systematically compares feasible alternatives to the proposed project site, technology, design, and operation—including the "without project" situation—in terms of their potential environmental and social impacts.
- Assesses the alternatives' feasibility of mitigating the environmental and social impacts; the capital and recurrent costs of alternative mitigation measures, and their suitability under local conditions; and the institutional, training, and monitoring requirements for the alternative mitigation measures.
- For each of the alternatives, quantifies the environmental and social impacts to the extent possible, and attaches economic values where feasible.

***(h)* Design Measures**

- Sets out the basis for selecting the particular project design proposed and specifies the applicable EHSGs or if the ESHGs are determined to be inapplicable, justifies recommended emission levels and approaches to pollution prevention and abatement that are consistent with GIIP.

(i) **Key Measures and Actions for the Environmental and Social Commitment Plan (ESCP)**

- Summarizes key measures and actions and the timeframe required for the project to meet the requirements of the ESSs. This will be used in developing the Environmental and Social Commitment Plan (ESCP).

(j) **Appendices**

- List of the individuals or organizations that prepared or contributed to the environmental and social assessment.
- References—setting out the written materials both published and unpublished, that have been used.
- Record of meetings, consultations and surveys with stakeholders, including those with affected people and other interested parties. The record specifies the means of such stakeholder engagement that were used to obtain the views of affected people and other interested parties.
- Tables presenting the relevant data referred to or summarized in the main text.
- List of associated reports or plans.

B. Indicative Outline of Environmental and Social Management Plan (ESMP)

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

An ESMP consists of the set of mitigation, monitoring, and institutional measures to be taken during implementation and operation of a project to eliminate adverse environmental and social risks and impacts, offset them, or reduce them to acceptable levels. The ESMP also includes the measures and actions needed to implement these measures. The Borrower will

(a) identify the set of responses to potentially adverse impacts;
(b) determine requirements for ensuring that those responses are made effectively and in a timely manner; and
(c) describe the means for meeting those requirements.

Depending on the project, an ESMP may be prepared as a stand-alone document or the content may be incorporated directly into the ESCP. The content of the ESMP will include the following:

(a) **Mitigation**

- The ESMP identifies measures and actions in accordance with the mitigation hierarchy that reduce potentially adverse environmental and social impacts to acceptable levels. The plan will include compensatory measures, if applicable. Specifically, the ESMP:
    (a) identifies and summarizes all anticipated adverse environmental and social impacts (including those involving indigenous people or involuntary resettlement);
    (b) describes—with technical details—each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate;
    (c) estimates any potential environmental and social impacts of these measures; and
    (d) takes into account, and is consistent with, other mitigation plans required for the project (e.g., for involuntary resettlement, indigenous peoples, or cultural heritage).

***(b)* Monitoring**

- The ESMP identifies monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the environmental and social assessment and the mitigation measures described in the ESMP. Specifically, the monitoring section of the ESMP provides
    (a) a specific description, and technical details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds and performance indicators that will signal the need for corrective actions; and
    (b) monitoring and reporting procedures to
        i. ensure early detection of conditions that necessitate particular mitigation measures, and
        ii. furnish information on the progress and results of mitigation.

***(c)* Capacity Development and Training**

- To support timely and effective implementation of environmental and social Project components and mitigation measures, the ESMP draws on the environmental and social assessment of the existence, role, and capability of responsible parties on site or at the agency and ministry level.
- Specifically, the ESMP provides a specific description of institutional arrangements, identifying which party is responsible for carrying out the mitigation and monitoring measures (e.g., for operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting, and staff training).
- To strengthen environmental and social management capability in the agencies responsible for implementation, the ESMP recommends the establishment or expansion of the parties responsible, the training of staff and any additional measures that may be necessary to support implementation of mitigation measures and any other recommendations of the environmental and social assessment.

***(d)* Implementation Schedule and Cost Estimates**

- For all three aspects (mitigation, monitoring, and capacity development), the ESMP provides (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurrent cost estimates and sources of funds for implementing the ESMP. These figures are also integrated into the total project cost tables.

***(e)* Integration of ESMP with Project**

- The Borrower's decision to proceed with a project, and the Bank's decision to support it, are predicated in part on the expectation that the ESMP (either stand alone or as incorporated into the ESCP) will be executed effectively. Consequently, each of the measures and actions to be implemented will be clearly specified, including the individual mitigation and monitoring measures and actions and the institutional responsibilities relating to each, and the costs of so doing will be integrated into the project's overall planning, design, budget, and implementation.

C. Sample Template of Environmental and Social Management Plan (ESMP)

1. Subproject Information

Subproject Title:	
Estimated Cost:	

Start/Completion Date:	

2. Site/Location Description

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

3. Subproject Description and Activities

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

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

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

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

5. Capacity Development & Training

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

6. Implementation Schedule and Cost Estimates

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

7. Attachments

Sub-Management Plans and Forms, etc.

IV. Review & Approval

Prepared By: …….. (Signature) …… Position: …… Date ……..	
Reviewed By: ……(Signature) ……. Position: ……Date ……..	**Approved By**: ……(Signature)…… Position: …… Date ……

Annex 3 - Sample Format for E&S Periodic Subprojects Progress Reporting (Quarterly, Annual)

Format for Quarterly Project/Subproject Progress Report

i. Period under Reporting.
ii. Introduction to the Project/Subproject.
iii. Project/Subproject Objective/Activity Information.
iv. Achievement(s) made planned activity.
v. Performance indicators and targets.
vi. Challenges and Risks encountered during activity/activities implementation.
vii. How were the challenges/risks addressed?
viii. Project activity/activities planned for the second quarter and tentative timelines.
ix. Annexes.

2. Guidelines/Format for Annual Project/Subproject Progress Report

i. Financial Year under Reporting (On Cover Page).
ii. Project No. and Title (On Cover Page).
iii. Executive Summary.
iv. Acronyms and Abbreviations.
v. List of Tables.
vi. List if Figures.
vii. Introduction to the Project/Subproject.
viii. Objective(s).
ix. Activity Planned/Planned Achievement/Actual Achievement and Remarks/Achievement indicators (To be Presented in a Table Form).
x. Challenges and Risks faced during Project implementation.
xi. How were the challenges/risks addressed or Planned to be addressed during the second year?
xii. Planned activities for the next financial year.
xiii. Indicative list(s) of resources required.
xiv. Conclusion and Recommendations
xv. Annexes

Annex 4 - Environmental and Social Specifications for Contractors

AIM OF THIS DOCUMENT The purpose of this document is to present a comprehensive set of specifications to be followed by Contractors in the implementation of subprojects under CRRN Project.

GENERAL

In order to prevent harm and nuisances on local communities, and to minimize the impacts on the environment during construction of investment sub-projects under the CRRN Project, the Contractor and his employees shall adhere to the mitigation measures set down in:

- ESIA
- Site Specific ESMP The specifications, procedures, and best practices included in this Annex. These specifications complement any technical specifications included in the work quantities and the requirements of Government of Mozambique regulations.
- Contractor's ESMP: The Contractor is required to submit a construction ESMP (CESMP)) as part of the proposed Construction Method Statements prepared as part of their Bid document and/or during construction phase. The Contractor's CESMP shall provide details such as Contractor's commitment to environmental protection; methodology of implementing the project ESMP; environmental mitigation measures and monitoring program during different stages of the construction period, and the contractor's proposed resources for the implementation of the ESMP.

The Contractor and his employees shall adhere to the mitigation measures set down in these specifications to prevent harm and nuisances on local communities, and to minimize the impacts in construction and operation on the environment.

SUBPROJECTS CONSTRUCTION ACTIVITIES

The following information is intended solely as broad guidance to be used in conjunction with local and national regulations and complemented by the Site Specific Environmental and Social Management Plans prepared for the project. Before initiation of rehabilitation activities, the Contractor shall present the PIU and Supervision Engineer/Consultant a Plan which explicitly states how he plans to abide by these specifications. After approval of such Plan by the PIU construction activities can proceed.

Workforce and Site Installation Management Plan

Workforce

There is the potential that local labor from the streets/villages around subproject area could participate in the project implementation activities. Priority shall be set by the Contactor(s) and sub-Contractor(s) to hire the local labor for the works. The contractor will not engage in child labor or forced labor. Based on the Labor Management Procedures (LMP) of the CRRN project the Contractor should prepare a Labor Management Plan (LMP) for his workers. The Contractor shall take the following steps to maximize to use of the local labor:

- Announcement for the position that local labor could participate in the works to every street/villages around the subproject area;
- Provide equal employment opportunities for both youth, women, men and disabled;
- Provide work safety/environmental awareness training to those local labors upon their hiring.

Code of Conduct

A Code of Conduct shall be established to outline the importance of appropriate behavior, drug and alcohol abuse, and compliance with relevant laws and regulations. Each employee shall be informed of the Code of Conduct and bound by it while in the employment of the Contractors. The Code of Conduct shall be available to local communities at the project information centers or other place easily accessible to the communities.

The Code of Conduct shall address the following measures (but not limited to them):

- All of the workforce shall abide by the laws and regulations of Mozambique;
- Reporting of work situations that are believed not to be safe or healthy;
- Treating other people with respect, and not discriminating against specific groups such as women, people with disabilities, migrant workers or children;
- Illegal substances, weapons and firearms shall be prohibited;
- Pornographic material and gambling shall be prohibited;
- Fighting (physical or verbal) shall be prohibited;
- Creating nuisances and disturbances in or near communities shall be prohibited;
- Disrespecting local customs and traditions shall be prohibited;
- Smoking shall only be allowed in designated areas;
- Maintenance of appropriate standards of dress and personal hygiene;
- Requirement of completion of relevant training courses that will be provided related to the environmental and social aspects of the Contract, including on health and safety matters, and Sexual Exploitation, and Sexual Abuse (SEA)
- Failure to comply with the Code of Conduct, or the rules, regulations, and procedures implemented at the construction camp will result in disciplinary actions.

Prohibitions

The following activities shall be prohibited on or near the project site.

- Cutting of trees for any reason outside the approved project area;
- Hunting, fishing, wildlife capture, or plant collection;
- Buying of wild animals for food;
- Feeding of wild animals;
- Use of unapproved toxic materials, including lead-based paints, asbestos, etc.;
- Disturbance to anything with architectural or historical value;
- Building of fires;
- Use of firearms;
- Use of alcohol by workers in office hours;
- Washing cars or machinery in streams or creeks;
- Doing maintenance (change of oils and filters) of cars and equipment outside authorized areas:
- Disposing trash in unauthorized places;
- Driving in an unsafe manner in local roads;
- Having caged wild animals (especially birds) in camps;
- Working without safety equipment (including boots and helmets);
- Creating nuisances and disturbances in or near communities;
- The use of rivers and streams for washing clothes;
- Indiscriminate disposal of rubbish or rehabilitation wastes or rubble;
- Littering the site;
- Spillage of potential pollutants, such as petroleum products;
- Collection of firewood;
- Poaching of any description;
- Explosive and chemical fishing;
- Use of latrine outside the designated facilities;
- Burning of wastes and/or cleared vegetation;
- Engaging in any form of sexual harassment including unwelcome sexual advances, requests for sexual favours, and other unwanted verbal or physical conduct of a sexual nature with other Contractor's or Employer's Personnel;
- Engaging in sexual exploitation, rape or sexual abuse;
- Engaging in any form of sexual activity with individuals under the age of 18, except in case of pre-existing marriage.

Any rehabilitation workers, office staff, Contractor's employees, the implementing agencies employees or any other person related to the project found violating these prohibitions will be

subjected to disciplinary actions that can range from a simple reprimand to termination of his/her employment depending on the seriousness of the violation.

Camp and Site Facilities

If applicable, the following general measures shall be considered for camp and site facilities:

- The construction, layout and extent of the construction site and its components, i.e. all offices, accommodation facilities, testing facilities / laboratories, batching areas, storage & stockpiling areas, workshops, vehicle washing areas and all other areas/facilities required for completion of the project shall be planned, designed and managed in such a manner that environmental and social impacts are minimized;
- The Contractor shall establish worker's camps, offices, workshops, testing facilities, stockpiling areas, staff accommodation etc. in a manner that does not adversely affect the environment.
- Observe applicable national (if any) and international standards on how many workers are allowed in one room, what minimum space required per person, type of beds, cooking arrangements etc.
- Site offices, camps, depots, asphalt plants, mixing stations, and workshops shall be located in appropriate areas as agreed by local village and approved by the Supervision engineer/Consultant and not within 500 meters of existing residential settlements and not within 1,000 meters for asphalt plants;
- Site offices, camps, depots and particularly storage areas for fuel, lubricants, bitumen and asphalt plants shall not be located within 500 meters of watercourses, and be operated so that no pollutants enter watercourses, either overland or through groundwater seepage, especially during periods of rain. This will require lubricants to be recycled and a ditch to be constructed around the area with an approved settling pond/oil trap at the outlet;
- Areas for the storage of fuel or lubricants and for a maintenance workshop shall be fenced and have a compacted/impervious floor to prevent the escape of accidental spillage of fuel and or lubricants from the site. Surface water drainage from fenced areas shall be discharged through purpose designed and constructed oil traps. Empty fuel or oil drums may not be stored on site.
- Fuel wood shall not be used as a means of heating during the processing or preparation of any materials forming part of the Works;
- The Contractor shall restrict all his activities, materials, equipment and personnel to the area specified. Entry into restricted areas by any person, vehicle or equipment without the Supervision Engineer's/Consultant's permission can result in penalties;
- Potable water safe for human consumption shall be provided for at camps, site offices, and other working areas;
- Camp areas shall be located to allow effective natural drainage;
- A method shall be established for storing and disposing of all solid wastes generated by the labor camp. If applicable, kitchen wastes shall be disposed into soak pits;
- Solid wastes generated in the labor site shall be reused if recyclable or disposed of in land fill sites;
- If water is stored on site, drinking water and multi-purposed water storage facilities shall be clearly distinguished and demarcated.
- Sanitary arrangements, latrines and urinals shall be provided in every camp sites/work fronts.

First Aid Facilities

- Medical and first aid facilities shall be provided at each camp area. In line with Occupational Health and Safety (First aid And Welfare Facilities) Rules, 2015, First aid boxes shall be provided at the construction campsite and under the charge of a responsible person who shall always be readily available 24 hours. He/she shall be adequately trained in administering first aid treatment. Formal arrangements shall be

prescribed to make motor transport available to carry an injured person or person suddenly taken ill to the nearest hospital.

Sanitary Facilities

- In every camp site separate and adequate lavatory facilities (toilets and washing areas) shall be provided for the use of male and female workers. Toilet facilities should also be provided with adequate supplies running water, soap, and toilet paper. Such facilities shall be conveniently accessible and shall be kept in clean and hygienic conditions:
  - ✓ o Where female workers are employed, there shall be at least one latrine for every 25 females or part thereof.
  - ✓ o Where males are employed, there shall be at least one latrine for every 25 males or part thereof.
  - ✓ o Every latrine shall be under cover and so partitioned off as to secure privacy and shall have a proper door and fastenings.
  - ✓ o Where workers of both sexes are employed, each latrine or urinal must be lockable from inside, and outside of each block there must be a notice in the language understood by the majority of the workers “For Men” or “For Women” as the case may be.
  - ✓ The latrines and urinals shall be adequately lighted and shall be maintained in a clean sanitary condition at all times and o Water shall be provided in or near the latrines and urinals by storage in drums.
- Chemical toilets, etc. must be provided at all construction camp areas where there will be a concentration of labor. Toilet paper must be provided;
- A temporary septic tank system shall be installed for the disposal of domestic wastes and excreta without causing pollution of nearby watercourses. Wastewater should not be disposed into water bodies without treatment.

Eating areas

- If none is available, the Contractor shall provide adequate temporary shade within the rehabilitation areas to ensure that site personnel do not move off site to eat;
- The Contractor shall provide adequate refuse bins at all eating areas to the satisfaction of the Supervision engineer/Consultant;
- If deemed necessary by the Supervision engineer/Consultant, the Contractor shall demarcate designated eating areas.

Security

Security measures shall be put into place to ensure the safe and secure running of the site facilities and its residents. Some of these security measures include:

- Adequate, day-time night-time lighting shall be provided;
- A perimeter security fence at least 2m in height constructed from appropriate materials;
- Provision and installation in all buildings of firefighting equipment and portable fires extinguishers.

E&S Impact Management Plan

Erosion and Sedimentation

In order to minimize negative impacts in the project area, the following activities shall be carried out by the Contractor:

- The Contractor shall implement erosion and sedimentation control measures to the satisfaction of the PIU and Supervision engineer/Consultant;
- The Contractor shall protect all areas susceptible to erosion by installing necessary temporary and permanent drainage works as soon as possible and by taking any other measures necessary to prevent storm water from concentrating in streams and scouring slopes, banks, etc.
- Areas of the site not disturbed by rehabilitation activities shall be maintained in their existing conditions; • Conserve topsoil with its leaf litter and organic matter, and

reapply this material to local disturbed areas to promote the growth of local native vegetation;

- Apply local, native grass seed and mulch to barren erosive soil areas or closed construction surfaces;
- Apply erosion control measures before the rainy season begins preferably immediately following rehabilitation;
- Install sediment control structures where needed to slow or redirect runoff and trap sediment until vegetation is established. Sediment control structures include windrows of logging slash, rock berms, sediment catchment basins, straw bales, brush fences, and silt;
- In areas where rehabilitation activities have been completed and where no further disturbance would take place, re-vegetation should commence as soon as possible;
- Spray water as needed on dirt roads, cuts, fill material and stockpiled soil to reduce wind-induced erosion;
- Traffic and movement over stabilized areas shall be restricted and controlled, and damage to stabilized areas shall be repaired and maintained to the satisfaction of the Supervision engineer/Consultant.

Earthworks, Cut and Fill Slopes

All earthworks shall be properly controlled, especially during the rainy season;

- The Contractor shall maintain stable cut and fill slopes at all times and cause the least possible disturbance to areas outside the prescribed limits of the works;
- In order to protect any cut or fill slopes from erosion, in accordance with the drawings, cut off drains and toedrains shall be provided at the top and bottom of slopes and be planted with grass or other plant cover. Cut off drains should be provided above high cuts to minimize water runoff and slope erosion;
- Any excavated cut or unsuitable material shall be disposed of in designated disposal areas as agreed to by the Supervision engineer/Consultant;
- Disposal sites should not be located where they can cause future slides, interfere with agricultural land or any other properties, or cause soil from the dump to be washed into any watercourse. Drains may need to be dug within and around the tips, as directed by the Engineer

Stockpiles and Borrow Pits

In general terms, the Contractor shall:

- Identify and demarcate locations for stockpiles and borrow pits, ensuring that they are 15 meters away from critical areas such as steep slopes, erosion-prone soils, and areas that drain directly into sensitive water bodies. Location of borrow pits shall be approved by the Supervision engineer/Consultant.
- Limit extraction of material to approved and demarcated borrow pits.
- Stockpile topsoil when first opening the borrow pit. After all usable borrow has been removed, the previously stockpiled topsoil should be spread back over the borrow area and graded to a smooth, uniform surface, sloped to drain. On steep slopes, benches or terraces may have to be specified to help control erosion.
- Excess overburden should be stabilized and re-vegetated. Where appropriate, organic debris and overburden should be spread over the disturbed site to promote re-vegetation. Natural re-vegetation is preferred to the extent practicable.
- Existing drainage channels in areas affected by the operation should be kept free of overburden.
- The Contractor shall ensure that all borrow pits used are left in a trim and tidy condition with stable side slopes, re-establishment of vegetation, restoration of natural water courses, avoidance of flooding of the excavated areas wherever possible so no stagnant water bodies are created which could breed mosquitoes.

- When the borrow pits cannot be refilled or reasonably drained, the Contractor shall consult with the local community to determine their preference for reuse such as fish farming or other community purposes;
- No foreign material generated/ deposited during construction shall remain on site. Areas affected by stockpiling shall be reinstated to the satisfaction of the Supervision Engineer/Consultant.

Disposal of Debris

The Contractor shall carry out the following activities:

- Establish and enforce daily site clean-up procedures, including maintenance of adequate disposal facilities for debris;
- Debris generated due to the dismantling of existing structures shall be suitably reused, to the extent feasible, in the proposed rehabilitation program (e.g. as fill materials for embankments). The disposal of remaining debris shall be carried out only at sites identified and approved by the Supervision Engineer/Consultant. The contractor should ensure that these sites (a) are not located within designated forest areas; (b) do not impact natural drainage courses; and (c) do not impact endangered/rare flora. Under no circumstances shall the contractor dispose of any material in environmentally sensitive areas.
- In the event any debris or silt from the sites is deposited on adjacent land, the Contractor shall immediately remove such, debris or silt and restore the affected area to its original state to the satisfaction of the Supervision Engineer/Consultant.
- Water courses shall be cleared of debris and drains and culverts checked for clear flow paths;
- Include provisions for incorporating the most appropriate stabilization techniques for each disposal site and determine that the selected spoil disposal sites do not cause unwanted surface drainage;
- Assess risk of any potential impact regarding leaching of spoil material on surface water;
- Once the job is completed, all rehabilitation -generated debris should be removed from the site.

Demolition of Existing Infrastructures

The following measures shall be implemented in order to protect workers and the public from falling debris and flying objects:

- Set aside a designated and restricted waste drop or discharge zones, and/or a chute for safe movement of wastes from upper to lower levels;
- Conduct sawing, cutting, grinding, sanding, chipping or chiselling with proper guards and anchoring as applicable;
- Maintain clear traffic ways to avoid driving of heavy equipment over loose scrap;
- Provide all workers with safety glasses with side shields, face shields, hard hats, and safety shoes.

Dust Control

- The Contractor shall ensure that the generation of dust is minimized and shall implement a dust control program to maintain a safe working environment, minimize nuisance for surrounding residential areas/dwellings and protect damage to natural vegetation, crops, etc.;
- Construction vehicles shall comply with speed limits and haul distances shall be minimized;
- Material loads shall be suitably covered and secured during transportation;
- Exposed soil and material stockpiles shall be protected against wind erosion and the location of stockpiles shall take into consideration the prevailing wind directions and locations of sensitive receptors; and
- The Contractor shall implement dust suppression measures (e.g. water spray vehicles, covering of material stockpiles, etc.) if and when required.

Noise Control

The Contractor shall be responsible for compliance with the relevant legislation with respect to noise;

- The Contractor shall try to keep noise generating activities to a minimum;
- The Contractor shall restrict all operations that result in undue noise disturbance to local communities and/or dwellings (e.g. blasting, crushing, etc.) to daylight hours on weekdays or as agreed with the Supervision Engineer/Consultant;
- The Contractor shall warn any local communities and/or residents that could be disturbed by noise generating activities such as blasting well in advance and shall keep such activities to a minimum;
- In sensitive areas (including residential neighbourhoods, hospitals, rest homes, schools, etc.) more strict measures may need to be implemented to prevent undesirable noise levels;
- To the extent possible, nighttime operations shall be kept to a minimum and banned near sensitive receptors;
- No blasting shall be allowed during nighttime unless prior approval is obtained from the government authority and the Supervision Engineer/Consultant; and
- The Contractor shall maintain the construction equipment in its best operating conditions and lowest noise levels possible.

Vegetation and site restoration

- Re-vegetation shall start at the earliest opportunity. Appropriate local native species of vegetation shall be selected for the compensatory planting and restoration of the natural landforms;
- Restoration of cleared areas such as borrow pits no longer in use, disposal areas, site facilities, stockpiles areas, working platforms and any areas temporarily occupied during construction of the project works shall be accomplished using landscaping adequate drainage and re-vegetation;
- Spoil heaps and excavated slopes shall be re-profiled to stable batters, and grassed to prevent erosion;
- Restoration and re-vegetation shall be carried out timely for the exposed slopes/soils and finished areas shall be reinstated in order to achieve the stability of slopes and maintain soil integrity;
- All affected areas shall be landscaped and any necessary remedial works shall be undertaken without delay, including grassing and reforestation; and
- Soil contaminated with chemicals or hazardous substances shall be removed and transported and buried in waste disposal areas.

Waste Management Plan

- Waste management on site shall be strictly controlled and monitored. Only approved waste disposal methods shall be allowed. The Contractor shall ensure that all site personnel are instructed in the proper disposal of all waste.

Solid waste

- The Contractor shall submit a method statement detailing a solid waste control system (storage, provision of bins, site clean-up schedule, bin clean-out schedule, etc.) to the Supervision Engineer/Consultant for approval.
- The Contractor shall ensure that all facilities are maintained in a neat and tidy condition and the site shall be kept free of litter;
- Measures shall be taken to reduce the potential for litter and negligent behaviour with regard to the disposal of all refuse. At all places of work, the Contractor shall provide litter bins, containers and refuse collection facilities for later disposal;
- Solid waste may be temporarily stored on site in a designated area approved by the Supervision Engineer/Consultant prior to collection and disposal through a licensed waste collector;
- Waste storage containers shall be covered, tip-proof, weatherproof and scavenger proof. The waste storage area shall be fenced off to prevent wind-blown litter;
- No burning, on-site burying or dumping of waste shall occur;

- All solid waste shall be disposed of offsite at an approved landfill site. The Contractor shall supply the Supervision Engineer/Consultant with certificates of disposal;
- Random disposal of solid waste in scenery areas shall be strictly prohibited;
- During rehabilitation, inert construction materials / excavated soil shall be reused on site as much as possible and minimize the volume requiring disposal;
- The Contractor shall identify and demarcate disposal areas clearly indicating the specific materials that can be deposited in each; and
- Recyclable materials such as wooden plates for trench works, steel, scaffolding material, site holding, packaging material, etc. shall be collected and separated on-site from other waste sources. Collected recyclable material shall be re-used for other projects or sold to waste collector for recycling.

Domestic waste

- The Contractor shall provide refuse bins, all with lids, for all buildings. Refuse shall be collected and removed from all facilities at least twice per week. Domestic waste shall be transported to the approved refuse disposal site in covered containers or trucks.

Wastewater

- The Contractor shall submit a method statement to the Supervision Engineer/Consultant detailing how wastewater would be collected from all wastewater generating areas, as well as storage and disposal methods. If the Contractor intends to carry out any on-site wastewater treatment, this should also be included;
- Water from kitchens, showers, laboratories, sinks etc. shall be discharged into a conservancy tank for removal from the site;
- Runoff from fuel depots / workshops / machinery washing areas and concrete batching areas shall be collected into a conservancy tank and disposed off at a site approved by the Supervision Engineer/Consultant;
- Domestic sewage from site office and toilets shall either be collected by a licensed waste collector or treated by on-site treatment facilities. Discharge of treated wastewater must comply with the discharge limit according to the legislation;
- Chemical toilets can be provided on site for construction workers. Domestic sewage collected from the site office and chemical toilets shall be cleaned up on regular basis. Only licensed waste collectors shall be employed for this disposal;
- At completion of rehabilitation works, soak pits and septic tanks shall be covered and effectively sealed off.

Hazardous and Chemical waste

- All hazardous and chemical waste (including bitumen, etc.) shall be disposed of at an approved hazardous landfill site and in accordance with local legislative requirements. The Contractor shall provide disposal certificates to the Supervision Engineer/Consultant;
- The removal of asbestos-containing materials or other toxic substances shall be performed and disposed of by specially trained workers;
- Used oil and grease shall be removed from site and sold to an approved used oil recycling company;
- Under no circumstances shall the spoiling of tar or bituminous products be allowed on the site, over embankments, in borrow pits or any burying;
- Unused or rejected tar or bituminous products shall be returned to the supplier’s production plant;
- Used oil, lubricants, cleaning materials, etc. from the maintenance of vehicles and machinery shall be collected in holding tanks and sent back to the supplier or removed from site by a specialist oil recycling company for disposal at an approved hazardous waste site.
- Inform the Supervision Engineer/Consultant of any accidental spill or incident;
- Initiate a remedial action following any spill or incident;

- Provide a report explaining the reasons for the spill or incident, remedial action taken, consequences/damage from the spill, and proposed corrective actions.

Materials Handling, Use and Storage Management Plan

General

The Contractor shall submit a method statement detailing cement storage, concrete batching areas and methods, method of transport of cement and concrete, storage and disposal of used cement bags, etc. for each concrete batching operation. Environmental considerations shall be taken into account in the location of any material storage areas.

Transportation

- The Contractor shall ensure that all suppliers and their delivery drivers are aware of procedures and restrictions (e.g. restricted areas);
- Material shall be appropriately secured to ensure safe passage between destinations during transportation;
- Loads shall have appropriate cover to prevent them spilling from the vehicle during transit;
- The Contractor shall be responsible for any clean-up resulting from the failure by his employees or suppliers to property secure transported materials.
- Transport vehicle e.g. dumper, book truck and any equipment as may be required for offloading heavy objects should have safety equipment like cones, first aid kit, fire extinguisher, etc. as per the requirements of part 8 of The Occupational Safety and Health (Building and Construction Industry) Rules, 2015.

Hazardous and Chemical Substances

The Contractor shall provide a method statement detailing the hazardous substances/material that are to be used during construction, as well as the storage, handling, and disposal procedures for each substance / material and emergency procedures in the event of misuse or spillage that might negatively affect the environment.

In general terms, the following activities shall be carried out:

- All hazardous material/substances (e.g. petrochemicals, oils, etc.) shall be stored on site only under controlled conditions;
- All hazardous material/substances shall be stored in a secured, appointed area that is fenced and has restricted entry. All storage shall take place using suitable containers to the approval of the Supervision Engineer/Consultant;
- Hazard signs indicating the nature of the stored materials shall be displayed on the storage facility or containment structure;
- Fuel shall be stored in a steel tank supplied and maintained by the fuel suppliers. The tank shall be located in a secure, demarcated area and should be contained by dykes than can hold 100% of the volume of the fuel stored.

Surfacing Materials

- Over spray of bitumen products outside of the road surface and onto roadside vegetation shall be prevented using a method approved by the Supervision Engineer/Consultant;
- When heating of bitumen products, the Contractor shall take appropriate fire control measures; Stone chip / gravel excess shall not be left on road / paved area verges. This shall be swept /raked into piles and removed to an area approved by the Supervision Engineer/Consultant; and
- Water quality from runoff from any fresh bitumen surfaces shall be monitored by the Supervision Engineer/Consultant and remedial actions taken where necessary.

Cement and Concrete Batching

- Concrete mixing directly on the ground shall not be allowed and shall take place on impermeable surfaces to the satisfaction of the Supervision Engineer/Consultant;

- All runoff from batching areas shall be strictly controlled, and cement-contaminated water shall be collected, stored and disposed of at a site approved by the Supervision Engineer/Consultant;
- Unused cement bags shall be stored out of the rain where runoff won't affect it;
- Used (empty) cement bags shall be collected and stored in weatherproof containers to prevent windblown cement dust and water contamination. Used cement bags shall not be used for any other purpose and shall be disposed of on a regular basis via the solid waste management system (see Waste Management Plan); and
- All excess concrete shall be removed from site on completion of concrete works and disposed of. Washing of the excess into the ground is not allowed. All excess aggregate shall also be removed.

Loading/Unloading Activities

The project will use large RCC pipes for drainage projects. This is a very risky activity and needs specifications for crane operation (e.g. licensed operator), lifting gear (e.g. use of two belts, not a single belt), flagmen, etc. The Contractor will be required to describe in their HSMP how both mechanical and manual handling will be done.

Ecological Considerations

Protection of Natural Vegetation

- The Contractor shall be responsible for informing all employees about the need to prevent any harmful effects on natural vegetation on or around the rehabilitation site as a result of their activities;
- Clearing of natural vegetation shall be kept to a minimum;
- The removal, damage and disturbance of natural vegetation without the written approval of the Supervision Engineer/Consultant are prohibited;
- The use of herbicides shall be approved by the Supervision Engineer/Consultant;
- Regularly check the work site boundaries to ensure that they are not exceeded and that no damage occurs to surrounding areas;
- Prohibit and prevent open fires during rehabilitation and provide temporary firefighting equipment in the work areas, particularly close to forest areas; and
- Some tress might be of value for the communities and may not be cut, disturbed, damaged, destroyed and their products may not be possessed, collected, removed, transported, exported, donated, purchased or sold except under license granted a delegated authority.

Protection of Fauna

- The Contractor shall ensure that no hunting, trapping, shooting, poisoning or otherwise disturbance of any fauna takes place;
- The feeding of any wild animals shall be prohibited;
- The use of pesticides shall be approved by the Supervision Engineer/Consultant; and
- No domestic pets or livestock shall be permitted on site.

Safety during Construction

Construction Site Safety

The Contractor's responsibilities include the protection of every person and nearby property from construction accidents. The Contractor shall be responsible for complying with all national and local safety requirements and any other measures necessary to avoid accidents, including the following:

- Provide personal protective equipment and clothing (goggles, gloves, respirators, dust masks, hard hats, steeltoed boots, etc.,) for construction workers and enforce their use;
- During heavy rains or emergencies of any kind, suspend all work;
- Brace electrical and mechanical equipment to withstand seismic events during the construction;

- Present details regarding maximum permissible vehicular speed on each section of road;
- Establish safe sight distance in both construction areas and construction camp sites;
- Place signs around the rehabilitation areas to facilitate traffic movement, provide directions to various components of the works, and provide safety advice and warning. All signs shall be in English and Swahili language and be constructed according to Tanzanian specifications.

Measures on blasting (if applicable)

- The Contractor shall take necessary precautions to prevent damage to special features and the general environment;
- Environmental damage caused by blasting/drilling shall be repaired at the Contractor's expense to the satisfaction of the Supervision Engineer/Consultant;
- The Contractor shall notify any occupants / owners of surrounding land at least one week prior to blasting and shall address any concerns that they may have to the satisfaction of the Supervision Engineer/Consultant; and
- For the transportation, storage, process, package on site, connect, blasting and the disposal of the blasting, the procedure shall be in accordance with the relevant Tanzania Regulations.

Fire Control

- The Contractor shall submit a fire control and fire emergency method statement to the Supervision Engineer/Consultant for approval. The method statement shall detail the procedures to be followed in the event of fire;
- The contractor shall take all reasonable steps to avoid increasing the risk of fire through activities on site;
- The contractor shall ensure that basic fire-fighting equipment is available at all camp areas and facilities;
- The contractor shall appoint a fire officer who shall be responsible for ensuring immediate and appropriate action in the event of a fire;
- The contractor shall ensure that all site personnel are aware of the procedure to be followed in the event of a fire; and
- Any work that requires the use of fire may only take place at a designated area approved by the Supervision Engineer/Consultant and must be supervised at all times. Fire-fighting equipment shall be available.

Traffic Management

- Estimate maximum concentration of traffic (number of vehicles/hour);
- Use selected routes to the project site, as agreed with the Supervision Engineer/Consultant, and appropriately sized vehicles suitable to the class of roads in the area, and restrict loads to prevent damage to local roads and bridges used for transportation purposes;
- Maintain adequate traffic control measures throughout the duration of the Contract and such measures shall be subject to prior approval of the Supervision Engineer/Consultant;
- Carefully and clearly mark pedestrian-safe access routes;
- If school children are in the vicinity, include traffic safety personnel to direct traffic during school hours; and
- Maintain a supply for traffic signs (including paint, easel, sign material, etc.), road marking, and guard rails to maintain pedestrian safety during construction.

Other Requirements

As indicated in section xx of the ESMF, Contractors will be required to include in their HSMPs safety measures in different activities including the following:

- Excavations.

- Working from height.
- Working in confined spaces.
- Housekeeping.
- Other general work (hot work, power tool safety, electrical work, tagging system, etc.).
- Permit-to-work system.

Protection of Heritage and Cultural Property

- If any archaeological or paleontological artefact or remains are uncovered during rehabilitation activities, work in the vicinity of the find shall cease immediately. The Contractor shall immediately notify the Supervision Engineer/Consultant who shall contact the Provincial Culture Department;
- The Contractor will be required to abide by the specifications as set out by the heritage specialist appointed to investigate the find; and
- The Contractor may not, without a permit issued by the relevant heritage resources authority, destroy, damage, excavate, alter, deface or otherwise disturb archaeological material.

Grievance Redress Mechanism (GRM)

The contractor shall develop a GRM for workers and community members to express concerns about the civil works. The GRM system should be easily accessible. For GBV cases, the GRM shall be designed in a way to keep strict confidentiality. All workers shall be trained about the GRM process and the contractor shall prove that each employee has been inducted with signatures to show that they have been inducted on the procedure. If the dispute is not resolved at the workplace, other resolutions mechanisms provided for in the labor legislations can be utilized.

All complaints received shall be recorded. The supervision engineer/consultant and PIU should be informed about the complaints when they are received. A mechanism shall be put in place to resolve the compliant swiftly. For complaints by community members if a resolution is not possible, the compliant shall be dealt with through the Project GRM system.

Community Relations

To enhance community relations the Contractor shall:

- Inform the local communities about construction and work schedules, blasting schedules, interruption of services, traffic detour routes and provisional bus routes, and demolition, as appropriate.
- Limit construction activities at night. When necessary ensure that night work is carefully scheduled and the community is properly informed so they can take necessary measures.
- Inform local community as early as possible and repeat at least one day in advance of any service interruption (including water, electricity, telephone, and bus routes) the community must be advised through postings at the project site, at bus stops, and in affected homes/businesses.
- All community infrastructures such as roads, bridges, water supply systems, micro-power generators, boat landings, irrigation systems, etc. affected during construction must be restored to the satisfaction of the communities and approved by the Supervision Engineer.
- All local roads used or by-passed by the Contractor will need to be rehabilitated to their original conditions.
- Establish and maintain a unit to receive, process and reach resolution on community complaints arising from construction activities (Grievance Redress Mechanism). Records of such complaints and their resolution must be kept and be available for review by the Supervision Engineer/Consultant and PIU.

Health Services, HIV/AIDS and COVID-19 Education

The Contractor shall provide basic first aid services to the workers as well as emergency facilities for work related accidents including medical equipment suitable for treatment likely to be required prior to transportation to hospital. The Contractor shall be responsible for implementing a program for the detection screening of sexually transmitted diseases, especially regarding HIV/AIDS, amongst laborers. The Contractor shall appoint an accident prevention officer at the Site, responsible for maintaining safety and protection against accidents. This person shall be qualified for this responsibility and shall have the authority to issue instructions and take protective measures to prevent accidents. Throughout the execution of the Works, the Contractor shall provide whatever is required by this person to exercise this responsibility and authority. The Contractor shall send to the Supervision Engineer/Consultant details of any accident as soon as practicable after its occurrence. The Contractor shall maintain records and make reports concerning the health, safety and welfare of persons, and damage to property, as the Engineer may reasonably require. The Contractor shall conduct an HIV-AIDS awareness program via an approved service provider and shall undertake such other measures as are specified in this Contract to reduce the risk of the transfer of the HIV virus between and among the Contractor's Personnel and the local community, to promote early diagnosis and to assist affected individuals. The Contractor shall conduct information and education campaigns addressed to all the site staff and labor (including all the Contractor's employees, all Sub-Contractors and Consultants' employees, and all truck drivers and crew making deliveries to site for construction activities) and to the immediate local communities, concerning the risks, dangers and impact, and appropriate avoidance behaviour with respect to of Sexually Transmitted Diseases (STD)-or Sexually Transmitted Infections. The Contractor shall also provide awareness on COVID-19 as well as putting in place necessary precautionary and emergency facilities for COVID-19 as per the national guidelines.

Environmental Emergency Procedures

The possibility exists for environmental emergencies of an unforeseen nature to occur during the course of the construction and operational phases of the project;

- By definition, the nature of such emergencies cannot be known. Therefore, the Contractor shall respond on a case-by-case basis to such emergencies and shall initiate event-specific measures in terms of notifications and reactions;
- The Contractor shall prepare a report on the incident detailing the accident, clean-up actions taken, any pollution problems and suggested measures to prevent similar accidents from happening again in future. The incident report shall then be submitted to the Supervision Engineer/Consultant and PIU for review and records.

Environmental Training and Awareness

The Contractor should ensure that all concerned staff are aware of the relevant environmental requirements as stipulated in local environmental legislation and the Contract specifications. The Contractor is responsible for providing appropriate training to all staff. This should be tailored to suit their level of responsibility for environmental matters. The Contractor should also ensure that all site staff members are aware of the emergency response procedures. All staff should receive environmental induction training and managerial staff should receive additional training. The training materials should be reviewed by the Supervision Engineer/Consultant. Additional refresher training may be provided and this should be scheduled following periodic internal review of requirements for the Project activity. Records should be maintained for staff environmental training. Records should be kept on site where possible for each project activity for easy access during site audits or enquiries. Environmental training records (e.g. attendance records for environmental awareness training, topics covered) should be kept.

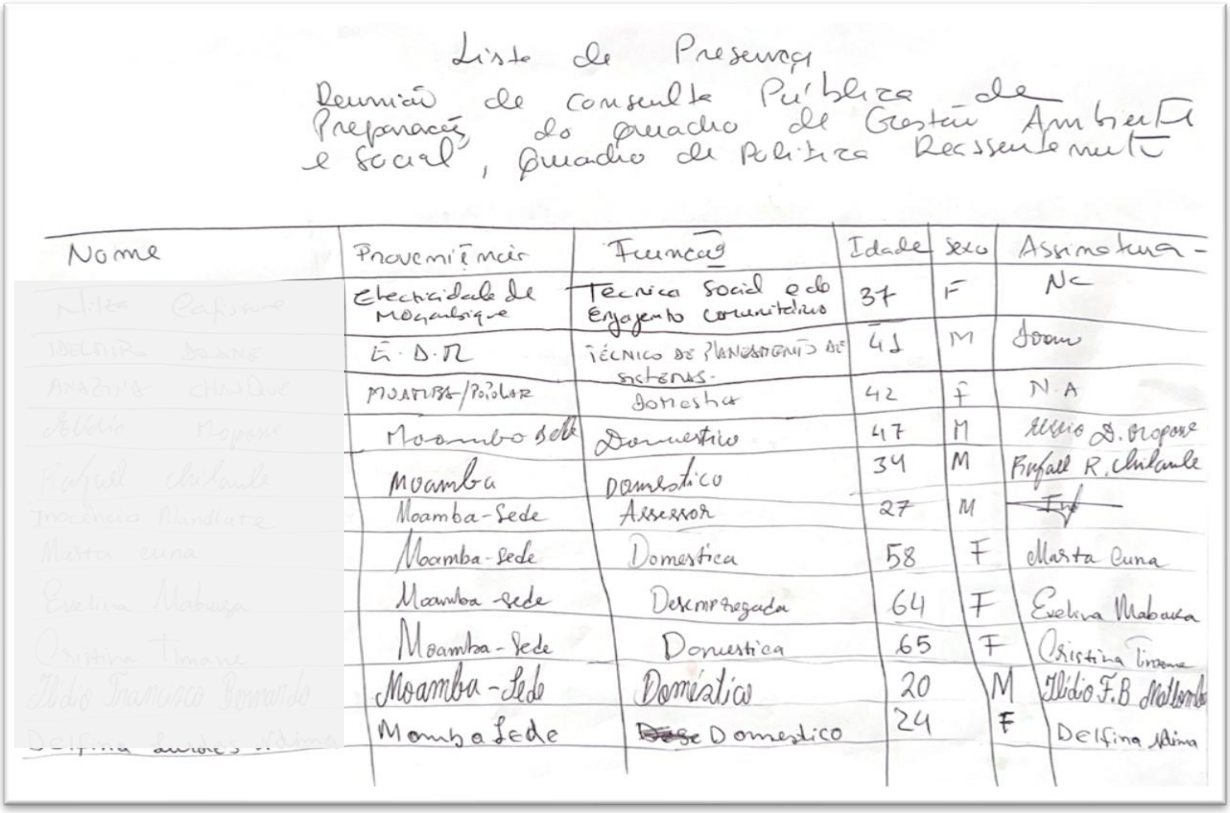
Remedial Actions

Remedial actions which cannot be effectively carried out during construction should be carried out on completion of the works (and before issuance of the acceptance of completion of works):

- All affected areas should be landscaped, and any necessary remedial works should be undertaken without delay, including grassing and reforestation.
- Water courses should be cleared of debris and drains and culverts checked for clear flow paths.
- All sites should be cleaned of debris and all excess materials properly disposed.
- Borrow pits should be restored prior to formal contract closure.

Summary of Stakeholders Consulted, Summary of Issues raised, and responses provided, Attendance List of participants and Sample Photographs.

A. Attendance List of Stakeholders in Moamba District



Lista de Presença
Reunião de consulta Pública de Preparação do Quadro de Gestão Ambiental e Social, Quadro de Política Reassentamento

Nome	Proveniência	Função	Idade	Sexo	Assinatura
Nilza Cafisse	Electricidade de Moçambique	Técnica Social e de Engajamento Comunitário	37	F	NC
Idelmiro Doane	E.D.M	Técnico de Planeamento de Sistemas	41	M	Idoane
Anabina Chauque	Moamba/Popular	Doméstica	42	F	N.A
Albidio Mopose	Moamba Sede	Doméstico	47	M	Albidio D. Mopose
Rafael Chilaule	Moamba	Doméstico	34	M	Rafael R. Chilaule
Inocêncio Mandlate	Moamba-Sede	Assessor	27	M	[illegible]
Marta Cuna	Moamba-Sede	Doméstica	58	F	Marta Cuna
Evelina Mabuza	Moamba-Sede	Desempregada	64	F	Evelina Mabuza
Cristina Timane	Moamba-Sede	Doméstica	65	F	Cristina Timane
Ilidio Francisco Bernardo	Moamba-Sede	Doméstico	20	M	Ilidio F.B Mathombe
Delfina Lurdes Ndima	Momba Sede	~~Dese~~ Doméstico	24	F	Delfina Ndima

Lista de Presença

Reunião Consulta Publica – PSHU
MOAMBA – 22/03/25

Nome	Proveniência	Função	Idade	Sexo	Assinatura
António Fernando Malhale	Pessene	Técnico [illegible]	39	Masculino	António
Manuel Vasco Pessane	Pessene	-x- x - x -x -x	66	Masculino	Manuel V. Pessane
Jotamo Samuel Macuacua	Madinguine	Camponês	57	Masculino	
Jeremias Alfredo	B. Livivine	Docente	41	Masculino	Jeremias
Benjamim Luís	B. Sul	Sub do secretário	57	Moamba	Blu
Maria do Céu	B. Sul	chefe do quart.	59	Moamba	[illegible]
Filipe Carlos Nhicossa	B. Josina Machel	Secretário	58	M	F.C. Nhicossa
Maximiano	B Central	Secretário	64	M	Maximiano
Oscar Uombe	Pessene – Damo	Secretário	48	M.	Oscar Uom
Isabel Filimone Zita	Pessene B	Secretaria	55	F	
Caetano J. Jolane	B. Sul Moamba sede	Autoridade Comunitária	67	Masculino	[illegible]
Fernando Chibanso	Pessene-sede Mahocha	A. secretário de bairro	38	M.	Fernando
António Pinto Cege	Pedreira Xicochane	Recursos Humanos	45	M	[illegible]
Bernardo Moniz	Pessene	Residente	50	M	Bmiz
Francisco Matine	B. Matadouro-Moamba	Residente	46	M	Francisco
João Zadamela	B. Matador	846828[illegible]	65	M	[illegible]
Rosália Sofrone	B-Liarrisrime	chefe do C. [illegible]	47	F	Rosália

Lista de Presença

Consulta Publica – PSHU
22/03/2025 – Moamba Sede

Nome	Proveniência	Função	Idade	Sexo	Assinatura
Laura Matsinhe	~~Moamba~~ Moamba-sede	Doméstico	46	F	Laura
Ivete Afonso	Moamba-Sede	Doméstica	23	F	Ivete
Leticia Chirinza	moamba sede	Domestica	25	F	leticia
Isabel Sobane	moamba sede	Domestica	56	F	isabel
Manuel Isenard	Moamba-Sede	Informal	22	M	Isenard
Wilson Tsinque	Pessene Bala Wambela	Conselheiro	79	m	wilson
Fernando S. Mazive	Pessene B. Waimbela	Líder comunitário	67	M	Fernando
Salomão Tete	Pessene Waimbela	comité círculo	62	M	STE[illegible]

Lista de Presenças
Consulta Pública - PSHU
22/03/2025 - Moamba Sede

Nome	Proveniência	Função	Idade	Sexo	Assinatura
[redacted]	AdRMM	Técnico Ambiental	35	M	[illegible]
	AdRMM	Técnica de Ambiente e de Salvaguarda	26	F	[illegible]
	ARA-Sul, IP	Estagiário	25	M	[illegible]
	ARA-Sul, IP	Técnico de salvaguardas	29	M	[illegible]
	Pessene	C. Posto	53	M	[illegible]
	Pessene	PS Zona	49	M	[illegible]
	ARA-Sul, IP	Técnica de Salvaguardas	44	F	[illegible]
	ARA-Sul, IP	Tec. Rec. Hídricos	38	F	[illegible]
	ARA-Sul, IP	Tec. Rec. Hídricos	33	M	[illegible]
	Bairro-Mahubhe	Engª Ambiental	56	M	[illegible]
	AdRMM	Engª Ambiental	—	F	[illegible]
	CFPAS	Gestor Ambiental	41	M	[illegible]
	TRANSALY	RH	42	M	[illegible]
	Bº Madeuyene	Líder Tradicional	89	M	[illegible]
	Bairro 7 de Abril	Pastor	90	M	[illegible]

Lista de Presença
Reunião de Consulta Pública - PSHU
Moamba - 22/03/2025

Nome e Apelido	Proveniência	Função	Idade	Sexo	Assinatura
[redacted]	ADRM	Técnico	49	M	[illegible]
	KOZAK.	Gestor	66	M	[illegible]
	SPA	Técnico	42	F	[illegible]
	MOAMBA	Gestora	42	M	[illegible]
	MOAMBA	Gestora			
	Paxitorão				
	Bicuane	Secretário d/B.	47	M	[illegible]
	EDM	Supervisor	35	M	[illegible]
	EDM	DEPDE	40	M	[illegible]
	Moamba	EN	81	M	[illegible]
	EN	EN	35	M	[illegible]
	EN	EN			
	Moamba	Régulo	53	M	[illegible]
	Mahochhe				Eunice A. Fazer
	Moamba		22	F	

Lista de Presença
Reunião de Consulta Pública – PSHU
Moamba – 22/03/2025

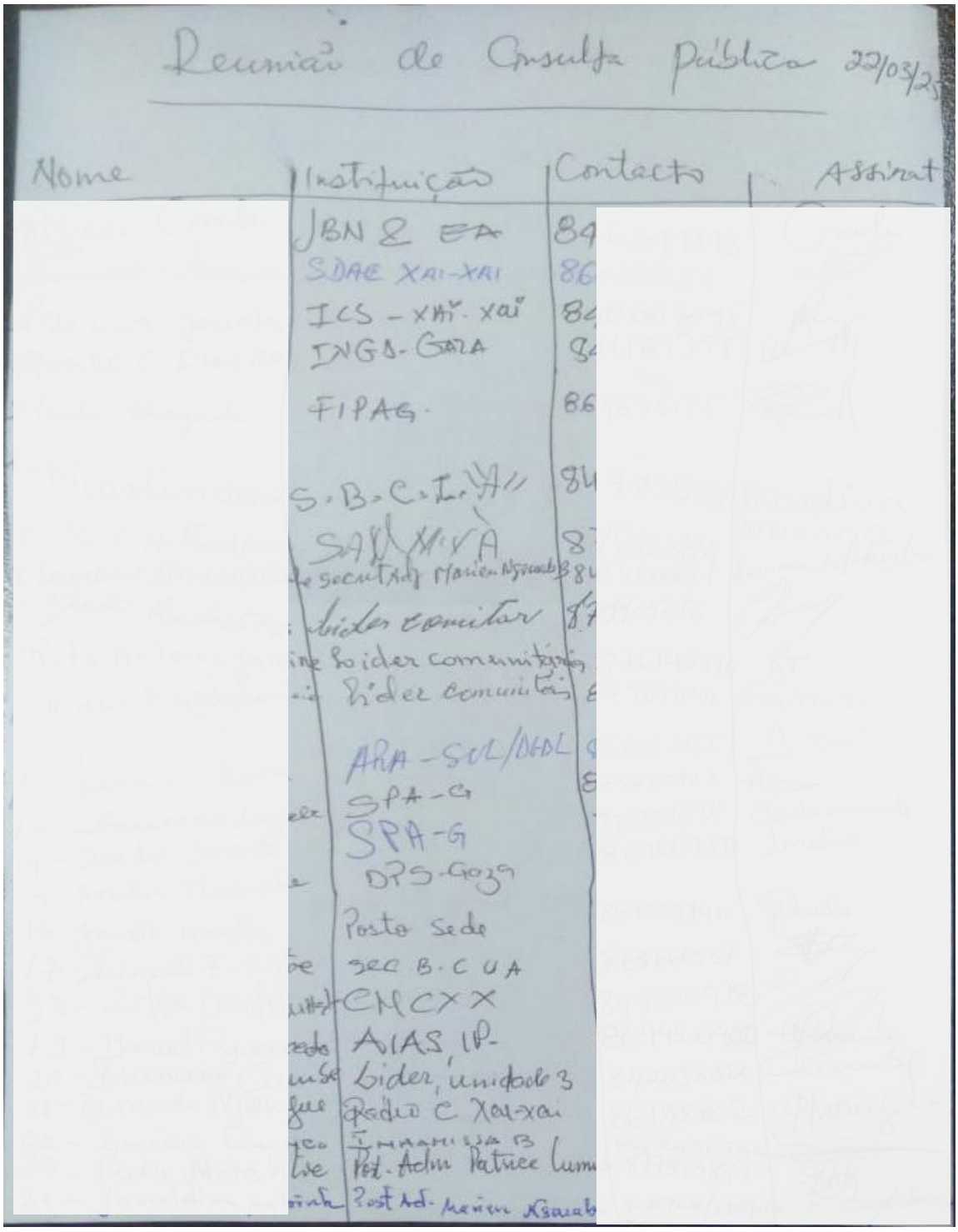
Nome e Apelido	Proveniência	Função	Idade	Sexo	Assinatura
Lichama Celestino Mentnoze	SDAE Moamba	Extencionista	35	M	
António Paulo Saiúda	B. Cimento	Líder Comunitário	69	M	Saiúda
Valdemira A. Lissave	ICS – Maputo	Delegado do ICS-Maputo	49	F	Valy
Elisa Margarida Bozo	Posto	Chefe de Secretaria	44	F	
Jacinto Chilombo	Pessene	Secretário	50	M	Jacinto
Silvio N.S. Machaclane	Matola	Técnico-PIPAS	40	M	
Alberto Chambisso	Maputo	Eng. Hidráulico	30	M	
Jacinto Raul	Bairro Chivava	Secretária	57	M	Jacinto
Fernando Xavier	Bairro Chivonantele	Chefe de 8	50	M	
Armando Malewane	Damo	Chefe do Quarteirão	50	M	

Nome	Proveniência	Função	Idade	Sexo	Assinatura
Salvania Banze	Posto	Técnica	35	F	Lesana
Hélio Hilário Mabote	Pessene	Chefe Localidade	43	M	
Manuel Cumbi	ADIMM	Gestor do sector	49	M	
Artemio Amane	ADIMM	Gestor do Sector	39	M	
Fernando Chitsunga	Mahoke - Pessene	Líder Comunitária	42	M	Fernando
Matilde Cossa	Chirandzeane Pessene	Líder comunitário	55	F	M. Cossa
Nercio Chifuale	Chikandziane Pessene	Representante Cateco	26	M	Nercio

Lista de Presença
Reunião de Consulta Pública – PSHU
Moamba – 22/03/2025

Nome e Apelido	Proveniência	Função	Idade	Sexo	Assinatura
Agostinho Clissane	Tenga	M. Comunidade	69	M.	Agostinho Clissane
Manuel Junior Como	Tenga	SF do bairro	42	M	Manuel Como
Simoize Lissane	Tenga	Líder Comunitário	55	M	Simoize Lissane

B. Attendance List of Stakeholders in Xa-Xai



Reunião de Consulta pública 22/03/2

Nome	Instituição	Contacto	Assinat
	JBN & EA	84	
	SDAE XAI-XAI	86	
	ICS - XAI-XAI	84	
	INGS-GAZA	84	
	FIPAG	86	
	S.B.C.I.A	84	
	SAL XAI-XAI	87	
	Líder comunitário	87	
	Líder comunitário		
	Líder comunitário	8	
	ARA-SUL/DADL	8	
	SPA-G	8	
	SPA-G		
	DPS-Gaza		
	Posto Sede		
	sec B.C.U.A		
	CMCXX		
	AIAS, IP-		
	Líder, unidade 3		
	Rádio C Xai-xai		
	[illegible]		
	Pst. Adm Patrice Lum		
	Post Ad. Marien Ngouabi		

Nome	Instituição	Contacto	Assinatura
[redacted]	Chimunguine	[redacted]	
[redacted]	AdRS	[redacted]	
[redacted]	AdRS	[redacted]	
[redacted]	API-Gaza	[redacted]	
[redacted]	CMCXX	[redacted]	
[redacted]	CMCXX	[redacted]	
[redacted]	INAM	[redacted]	
[redacted]	Educação	[redacted]	
[redacted]	Sec. do Bairro/Líder	[redacted]	
[redacted]	Líder Trad.	[redacted]	
[redacted]	Ndambini 2000	[redacted]	
[redacted]	AdRS	[redacted]	
[redacted]	AdRS	[redacted]	
[redacted]	Adj. Secretário Bairro	[redacted]	
[redacted]	DPS	[redacted]	
[redacted]	AQUA	[redacted]	
[redacted]	SPAS	[redacted]	
[redacted]	ADRS	[redacted]	
[redacted]	FIPAG-Sede	[redacted]	

43 participants

32 Homens

11 Mulheres

Annex 6 - GBV And SEA/SH Prevention and Response Action Plan

Background

The Mozambique Urban Water Security Project, which seeks to improve water infrastructure and services in major cities and districts, recognizes the potential risks of GBV, SEA, and SH during project implementation, particularly in the interaction between contractors, project workers, and community members.

As urban and periurban infrastructure projects expand, the presence of external workers, power imbalances in labor relations, and increased interaction between workers and local populations can heighten vulnerabilities to SEA and SH (World Bank, 2023). Women and girls in project-affected areas are particularly at risk, especially when public infrastructure such as water points and sanitation facilities is located in remote or poorly lit areas, where access to safety and grievance mechanisms is limited.

Purpose of the Action Plan

Recognizing that infrastructure projects can exacerbate existing gender inequalities and vulnerabilities, this plan ensures that all stakeholders, including project personnel, contractors, and community members, operate within a framework that prioritizes safety, dignity, and rights-based approaches for all individuals, particularly women and girls.

The key objectives of this action plan are to identify and assess potential GBV/SEA/SH risks within the project's scope and implementation areas. It establishes preventive measures, including codes of conduct, training programs, and awareness campaigns to promote a zero-tolerance policy for GBV-related misconduct. The plan ensures safe, accessible, and survivor-centered response mechanisms, including healthcare, psychosocial support, legal assistance, and emergency protection services for GBV survivors. It strengthens institutional and community engagement by enhancing stakeholder participation, including women's organizations, youth groups, and local authorities in GBV prevention and response efforts. It integrates monitoring and evaluation mechanisms to track implementation, ensure compliance with World Bank regulations, and provides a continuous learning framework for GBV risk mitigation.

Scope and Application

The GBV Action Plan applies to all components, personnel, and stakeholders involved in the project implementation areas across the target areas of Maputo City, Matola City, Boane District, Marracuene District, Moamba District, Xai-Xai City, Chibuto Town, and Inhambane City. The scope of this action plan includes project personnel and contractors, requiring all individuals employed or engaged in project activities, including contractors, subcontractors, consultants, and laborers, to adhere to GBV prevention policies, receive mandatory training on SEA/SH prevention, and comply with established codes of conduct. It also includes community members and project beneficiaries, ensuring that measures are in place to protect local populations, particularly women, girls, and other at-risk groups, from potential GBV, SEA, and SH risks linked to project activities, workforce presence, and infrastructure development.

Government institutions and local stakeholders are also included, with the plan outlining coordination mechanisms with police units, healthcare providers, legal aid services, and social protection networks to ensure an effective multi-sectoral GBV response. A complaint and grievance redress mechanism will be established to provide a safe, confidential, and survivor-centered reporting system to enable survivors to seek assistance without fear of retaliation.

Monitoring and compliance measures will ensure periodic GBV risk assessments, audits, and corrective action plans in line with World Bank Environmental and Social Standards, particularly ESS1 on environmental and social assessment and ESS10 on stakeholder engagement and information disclosure.

Legal and Institutional Framework

The legal and institutional framework for addressing gender-based violence (GBV), sexual exploitation and abuse (SEA), and sexual harassment (SH) in Mozambique is shaped by national laws and policies, World Bank requirements, and international commitments. This section outlines the key regulations, guidelines, and obligations that inform the Mozambique Urban Water Security Project's GBV Action Plan, ensuring compliance with human rights standards, gender equality principles, and survivor-centered approaches**.**

National Laws and Policies on GBV, SEA, and SH

Mozambique has developed a **comprehensive legal framework** to address GBV, SEA, and SH through laws, policies, and national strategies aimed at preventing violence, protecting survivors, and prosecuting perpetrators. The key national legal instruments include:

- **Law No. 29/2009 on Domestic Violence Against Women** criminalizes various forms of GBV, including physical, sexual, and psychological violence within domestic and intimate partner relationships. The law strengthens legal protections for women and establishes penalties for perpetrators.
- **The Penal Code (Law No. 35/2014, revised in 2019)** criminalizes sexual violence, sexual harassment, and exploitation. The 2019 revision introduced stricter punishments for sexual crimes, including child abuse, rape, and workplace sexual harassment.
- **The Family Law (Law No. 10/2004)** provides legal protections against forced and early marriage, setting the minimum age of marriage at 18 and outlining measures to protect minors from sexual abuse and coercion.
- **The Labor Law (Law No. 13/2023)** prohibits sexual harassment in the workplace and mandates employers to establish policies that prevent and address SEA/SH cases.
- **The National Strategy for Preventing and Combating GBV (2023–2028)**, led by the Ministry of Gender, Children, and Social Action (MGCAS), provides a national framework for **GBV prevention, survivor support, and institutional capacity-building**.
- **The Regulation on the Protection of Children's Rights (Decree No. 60/2008)** criminalizes all forms of violence against children, including sexual exploitation and child trafficking.
- **The Law on Human Trafficking (Law No. 6/2008, amended in 2022)** strengthens protections against sexual exploitation and forced labor, ensuring comprehensive legal support for victims.

World Bank Requirements and Policies

As a World Bank-funded project**,** the Mozambique Urban Water Security Project is governed by the World Bank's Environmental and Social Framework (ESF)**,** particularly the Environmental and Social Standards (ESSs) that address GBV, SEA, and SH risks. The key policies include:

- ESS1: Assessment and Management of Environmental and Social Risks and Impacts requires projects to conduct GBV risk assessments, implement mitigation measures, and establish grievance mechanisms for SEA/SH complaints.
- ESS2: Labor and Working Conditions mandates worker codes of conduct, SEA/SH prevention policies, and worker training programs to reduce the risk of abuse.
- ESS4: Community Health and Safety requires safe and accessible reporting mechanisms, survivor-centered response systems, and protective measures for vulnerable groups**,** including women, children, and persons with disabilities.
- ESS10: Stakeholder Engagement and Information Disclosure ensures inclusive consultations, awareness campaigns, and transparent communication on GBV-related risks and available support services.

International Commitments

- Mozambique is a signatory to several international conventions and treaties that establish obligations for preventing and addressing GBV, SEA, and SH:
- **The Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW, 1981)** commits Mozambique to eliminate gender-based violence, promote women's rights, and implement legal protections against sexual exploitation and abuse.
- **The Maputo Protocol (2005)**, under the African Charter on Human and Peoples' Rights, requires states to criminalize GBV, strengthen legal protections for survivors, and ensure access to justice and healthcare services.
- **The UN Convention on the Rights of the Child (CRC, 1990)** mandates protections against child abuse, sexual exploitation, and early marriage, reinforcing Mozambique's legal responsibility to prevent and respond to child-centered SEA/SH cases.
- **The International Labour Organization (ILO) Convention No. 190 on Violence and Harassment (2019)**, which Mozambique has committed to ratify, outlines standards for preventing SEA/SH in the workplace and ensuring workers' rights to a violence-free environment.
- The Sustainable Development Goals (SDGs), particularly SDG 5 on Gender Equality, call for the elimination of all forms of violence against women and girls, requiring Mozambique to align national policies with global development targets.

Risk Assessment and Context Analysis

This analysis examines these factors across Maputo City, Matola City, Boane District, Marracuene District, Moamba District, Xai-Xai City, Chibuto Town, and Inhambane City, highlighting the risks faced by women and girls in project location areas.

Socio-Economic and Demographic Context: Nationally, one in four women experiences physical or sexual violence in her lifetime, and one in two girls marries before turning 18 . Women remain overrepresented in informal and low-paying jobs, exposing them to economic dependence and increased vulnerability to exploitation.In Maputo City and Matola City, as major urban and industrial hubs, workplace h**a**rassment is common, particularly in male-dominated sectors such as construction and transport (Human Rights Watch, 2022). In Boane and Marracuene Districts, women and girls face infrastructure challenges, particularly in water access. Unreliable water sources force them to travel long distances to collect water, increasing their exposure to harassment and assault (World Bank, 2023).In Moamba District, economic migration, trafficking, exploitation and informal labor markets contribute to high SEA risks. Women working in precarious employment often experience coercion and exploitation, with limited access to protection mechanisms (UNODC, 2023).In Xai-Xai and Chibuto Towns, climate change-driven economic instability, including floods and droughts, exacerbates GBV risks. Women in these areas face increased vulnerabilities to intimate partner violence, sexual violence, and transactional relationships due to economic hardships (UNICEF, 2023).In Inhambane City, a tourism-driven economy, sexual harassment in the hospitality industry is widespread. Women in hotels, restaurants, and informal tourism jobs report high levels of workplace abuse and exploitation (Amnistia Internacional, 2021).

Community Vulnerability Factors: Urban centers like Maputo and Beira have seen rising GBV incidents following natural disasters, such as cyclones, which disrupt social structures and worsen economic hardships (UN Women, n.d.).In districts like Marracuene and Moamba, limited water infrastructure forces women to rely on unsafe public water sources, increasing their risk of harassment (World Bank, 2023). Additionally, restricted access to reporting mechanisms and survivor support services limits justice for survivors. Cultural stigmas, fear of retaliation, and social norms discouraging GBV disclosures prevent many cases from being reported.

Institutional Environment and Governance: Mozambique has legal frameworks addressing GBV/SEA/SH, but enforcement gaps persist. Only 55% of Mozambicans believe that using physical force against a wife is never justified, reflecting societal attitudes that hinder progress (Afrobarometer, 2023).In cities like Maputo and Matola, government initiatives such as Support Centers for Women and Children Victims of Violence operate within police stations, but challenges in accessibility and effectiveness remain (CDC, 2023).The availability of hotlines and grievance redress systems varies across urban areas. In many peri-urban districts, these mechanisms are absent, limiting access to justice for GBV survivors. Additionally, codes of conduct and training programs on SEA/SH for project workers are being developed but are not yet uniformly implemented.

Construction Projects and Workforce Dynamics: Infrastructure projects in Maputo, Matola, and other cities bring external workers into communities, creating power imbalances that increase the risk of SEA and SH. Women and girls in low-income areas are particularly vulnerable to exploitation by male-dominated workforces.Despite growing advocacy for workplace protections, labor policies aimed at preventing sexual harassment remain inconsistently applied, leaving many workers unprotected (ILO, 2023).

Cultural Norms and Gender Practices: Traditional gender roles and patriarchal structures normalize violence against women and discourage survivors from reporting abuse. In many communities, domestic violence is still considered a private matter, which weakens legal enforcement (Afrobarometer, 2023). Stigmatization of survivors prevents SEA/SH cases from being reported. In Maputo and Matola, taboos around discussing sexual violence contribute to underreporting (UN Women, 2023). The expectation that women should endure abuse to preserve family stability further increases their vulnerability. Early and forced marriage remains prevalent in peri-urban districts like Boane and Marracuene, where 52% of girls marry before the age of 18, despite legal prohibitions (UNICEF, 2023).

Data and Previous GBV Cases: GBV, SEA, and SH remain underreported, but available data suggest that urban centers have higher documented cases than rural areas, due to greater awareness and access to services**. In** Maputo and Matola, studies by Human Rights Watch (2022) found that 35% of working women reported workplace harassment, especially in construction and transport. However, only 10% officially reported their cases, fearing job loss and retaliation. In Inhambane's tourism industry, young female workers face exploitation from both employers and customers, with minimal labor protections In Xai-Xai's informal markets, women often experience sexual coercion by security personnel and market officials (Borges et al., 2022). In Chibuto and Moamba, women's rights groups report insufficient access to shelters and psychosocial support for GBV survivors (UNODC, 2023). Many SEA/SH cases remain unresolved due to inadequate legal action and weak survivor support mechanisms.

Referral pathways for GBV service providers by site: A referral pathway ensures that GBV survivors receive timely, coordinated, and survivor-centered services across multiple sectors, including healthcare, psychosocial support, legal assistance, and law enforcement. This section outlines the GBV referral pathways for each project site to enhance accountability, efficiency, and survivor protection within the Mozambique Urban Water Security Project.

- **Maputo City**: GBV survivors in Maputo City can access emergency medical care at major hospitals such as Maputo Central Hospital, which provides post-GBV care, forensic examinations, HIV/STI prophylaxis, and psychosocial support. Cases requiring legal assistance can be referred to IPAJ Maputo for free legal aid or the Procuradoria da República for case prosecution. Survivors seeking police intervention can report to the Gabinete de Atendimento à Família e Menores at the nearest police station. Community-based organizations, such as Forum Mulher, offer additional psychosocial and reintegration support.
- **Matola City**: In Matola City, survivors can seek medical assistance at Matola Provincial Hospital, which provides post-exposure prophylaxis, STI treatment, and emergency

contraception. Survivors can be referred to IPAJ Matola for legal representation, while Gabinete de Atendimento à Família e Menores within the police department offers assistance in reporting cases. Psychosocial counseling is available at Women and Girls' Safe Spaces, operated by local NGOs such as AMMCJ (Associação das Mulheres Moçambicanas de Carreira Jurídica).

- **Boane District:** Boane Health Center provides initial medical support, post-GBV care, and referrals to specialized facilities in Maputo if necessary. Survivors requiring legal services can contact IPAJ Boane, while law enforcement assistance is available through Boane Police Station's Family Protection Unit. Social workers and community-based organizations provide psychosocial support and assist in shelter arrangements if needed.
- **Marracuene District**: GBV survivors in Marracuene can access medical services at Marracuene District Hospital, where forensic exams, emergency contraception, and STI treatment are available. Police services through the Gabinete de Atendimento à Família e Menores handle case reporting. Legal services are provided by the district Public Prosecutor's Office, while psychosocial support is available at local community health centers and social service providers.
- **Moamba District**: Given the limited number of specialized GBV service providers in Moamba, survivors are primarily referred to Moamba District Hospital for emergency medical care and HIV/STI prophylaxis. Legal aid and case prosecution are handled at the Procuradoria Distrital de Moamba, while the police's Family Protection Unit assists with case reporting. NGOs and social workers provide psychosocial counseling and reintegration services.
- **Xai-Xai City**: GBV cases in Xai-Xai are primarily handled by Xai-Xai Provincial Hospital, which offers medical care, forensic services, and psychological counseling. Survivors seeking legal redress are referred to IPAJ Xai-Xai for legal aid, while police intervention is available at Gabinete de Atendimento à Família e Menores. Community organizations, including Fórum Mulher, provide psychosocial and shelter support for survivors.
- **Chibuto Town**: Survivors in Chibuto can access health services at Chibuto District Hospital, which provides post-GBV care, STI treatment, and trauma counseling. Legal support is available through IPAJ Chibuto, and police protection is coordinated through Gabinete de Atendimento à Família e Menores at Chibuto Police Station. Survivors needing additional support, including shelter, are referred to NGOs specializing in GBV prevention.
- **Inhambane City:** In Inhambane City, HP Inhambane (Provincial Hospital) provides emergency GBV medical care, forensic exams, and post-exposure prophylaxis. Survivors can seek legal services at IPAJ Inhambane or report cases to the Procuradoria Distrital de Inhambane for case prosecution. Law enforcement intervention is available at the Gabinete de Atendimento à Família e Menor Vítima de Violência. Additional psychosocial support and crisis intervention services are provided by local women's support groups and social welfare services.

Key components of the referral pathway

Healthcare services allow survivors to access post-GBV care, including medical treatment, HIV/STI prophylaxis, forensic services, and psychosocial support at designated hospitals and health centers. Law enforcement mechanisms ensure that survivors report cases at police Family Protection Units, where officers assist in filing complaints, conducting investigations, and ensuring safety planning.Legal assistance enables survivors to access free legal aid, case representation, and judicial proceedings support through IPAJ offices and Public Prosecutors. Psychosocial support is available through NGOs, safe spaces, and social workers who provide trauma counseling, reintegration assistance, and shelter referrals. Community-based support includes local organizations conducting awareness campaigns, survivor advocacy, and skills training for economic empowerment.

Project-Specific Risks and Vulnerabilities

This analysis provides a site-specific assessment of risks, categorized by project phase, from planning to construction and post-construction phases.

Planning and Pre-Construction Phase

- Risks related to workforce mobilization and land use decisions emerge during project planning due to land acquisition, displacement, and initial community engagement activities. The presence of external project staff in communities can lead to early exposure to SEA risks, particularly if grievance mechanisms and community protections are not well established.
- Maputo City and Matola City face high risks of workplace SEA and SH, as women seeking employment in construction and service industries may be vulnerable to exploitation by contractors and employers.
- Boane and Marracuene Districts experience land acquisition challenges, where families, especially female-headed households, risk economic displacement, increasing their vulnerability to SEA.
- Moamba District has a high influx of migrants and informal workers, increasing the risk of coercion and transactional sex for vulnerable populations.
- Xai-Xai and Chibuto Towns face climate-induced displacement, forcing women and girls to relocate to unstable living conditions, heightening their SEA and SH exposure. Inhambane City, with its tourism and informal economy, risks an increase in harassment cases linked to speculation over land and economic shifts during project planning.

Construction Phase

Risks related to workforce presence and infrastructure development emerge during construction due to the influx of male-dominated labor forces, temporary worker accommodations, and daily interactions with the community.

- Maputo City and Matola City have large-scale construction activities, increasing the risk of workplace SEA and SH, particularly for women employed in informal or low-skilled roles.
- Boane and Marracuene Districts face high risks for women and girls collecting water, as construction sites near public water points may create opportunities for harassment.
- Moamba District experiences economic migration and informal settlements, increasing risks of exploitative relationships between workers and vulnerable women and girls.
- Xai-Xai and Chibuto Towns face water scarcity, forcing women to travel long distances for water, exposing them to SEA risks near construction sites.
- Inhambane City, with its high tourism activity, risks increased SEA cases as temporary workers and visitors may exploit local women in hospitality and service industries.

Post-Construction and Maintenance Phase

Risks related to long-term infrastructure use and sustainability persist after construction due to maintenance operations, continued worker presence, and community dependence on new infrastructure.

- Maputo City and Matola City face risks in service industries, where harassment and SEA in water management roles can persist. Boane and Marracuene Districts have high dependency on newly developed water systems, increasing power imbalances where male maintenance workers may exploit women needing repairs or services.
- Moamba District, with its high mobility population, faces long-term SEA risks from ongoing labor migration. Xai-Xai and Chibuto Towns experience climate challenges,

leading to disruptions in water access, potentially increasing women's vulnerability to coercion in accessing services. Inhambane City continues to see workplace SEA risks, particularly in hospitality and service industries tied to the project's economic development impact.

- Mitigation strategies for the post-construction phase include maintaining GBV prevention policies within water infrastructure operations and maintenance teams, ensuring long-term access to safe reporting mechanisms, allowing survivors to seek justice and support beyond project implementation, and conducting periodic GBV risk assessments and audits to monitor continued risks and ensure mitigation strategies remain effective.

Cross-Cutting Risks and Vulnerabilities

Weak institutional capacity for GBV response remains a challenge across all project sites due to limited accessibility of reporting mechanisms, discouraging survivors from seeking help, stigma and cultural norms that discourage reporting, particularly in rural and peri-urban areas, and inconsistent enforcement of labor codes of conduct, leaving workers and community members vulnerable.

Certain populations face heightened risks of GBV, SEA, and SH due to social, economic, and cultural factors. Young women and girls are particularly vulnerable, especially in school-to-work transitions and informal labor markets. Female-headed households may be more susceptible to economic coercion in exchange for water access, employment, or financial stability. Women in informal employment, such as street vendors, domestic workers, and farm laborers, face workplace harassment and economic dependence on exploitative relationships.

People with disabilities face additional barriers to accessing GBV services due to mobility constraints and social stigma.

Challenges in GBV case management and survivor support persist due to police and judicial institutions lacking specialized training in GBV case management, leading to poor handling of survivor complaints, health services being unevenly distributed, making it difficult for survivors in remote areas to access emergency post-GBV care, and psychosocial support and safe shelters being scarce, particularly in peri-urban districts like Boane and Chibuto, where women have few alternatives for protection and reintegration.

Risk Analysis

The interaction between project workers, contractors, and local communities creates power imbalances that increase the risk of GBV, particularly where public infrastructure such as water points and sanitation facilities are located in remote or poorly lit areas. Additionally, economic vulnerabilities and weak institutional GBV response mechanisms exacerbate risks for women and other at-risk populations.

GBV/ SEA/SH Risk Analysis

Category	Threats	Vulnerabilities	Capacity
Workforce Dynamics	Sexual exploitation and abuse by project workers, including transactional sex.	High poverty rates force women into vulnerable economic situations, making them susceptible to SEA.	Some health and legal institutions provide GBV response services, such as police units and health facilities with forensic

			examination capabilities in Maputo and Matola.
Community Vulnerabilities	Workplace sexual harassment in construction and water service sectors.	Cultural norms discourage GBV reporting, particularly in peri-urban and rural areas such as Moamba and Chibuto.	NGOs and community-based organizations provide limited psychosocial support and legal assistance.
Infrastructure Risks	Increased risk of intimate partner violence (IPV) and sexual violence due to economic instability and power imbalances.	Lack of accessible reporting mechanisms for GBV survivors, particularly in areas with weak institutional presence.	Existing legal frameworks, including Mozambique's Law No. 29/2009 on Domestic Violence and the National Strategy for Preventing and Combating GBV (2023–2028), establish guidelines for GBV prevention and response.
Institutional Challenges	Harassment and assault risks for women and girls collecting water from unsafe or distant locations.	Weak enforcement of codes of conduct among contractors and laborers.	World Bank safeguards (ESS1, ESS2, ESS4, and ESS10) require implementing measures to prevent SEA/SH in project activities.

Code of Conduct for All Workers and Staff

All workers, staff, and contractors must sign the Code of Conduct before starting work, with a focus on gender-based violence, sexual exploitation and abuse, sexual harassment, and ethical conduct. Mandatory training will cover workplace ethics, reporting mechanisms, and the consequences of violations, with quarterly refresher sessions to reinforce knowledge. Compliances will be monitored through site inspections, unannounced checks, and anonymous surveys. A confidential grievance redress mechanism will enable reporting through a helpline, drop boxes, and direct contact with trained officers. Violations will lead to disciplinary action, including warnings, suspension, termination, or legal consequences for severe offenses, with a zero-tolerance policy for gender-based misconduct. A Stakeholder Engagement Plan will ensure transparency, allowing external oversight and regular progress reporting to stakeholders.

Training and Awareness Campaigns

A structured awareness campaign will reinforce training by addressing key topics such as gender equality, ethical business practices, workplace respect, protection of vulnerable groups, reporting mechanisms, and anti-corruption measures. Various communication tools, including posters, social media, radio messages, and community meetings, will maximize outreach. A comprehensive communication plan will define target audiences, key messages, and dissemination strategies in multiple languages, ensuring cultural sensitivity. Community engagement will be central, with outreach sessions informing local populations about their

rights and reporting mechanisms. Monitoring and evaluation will track effectiveness through surveys, focus groups, and feedback mechanisms, ensuring continuous improvement.

Gender-Sensitive Site Planning and Infrastructure
Gender-sensitive site planning for the Mozambique Urban Water Security Project will ensure safety, dignity, and inclusivity in campsite layouts and accommodations. Separate and secure sleeping quarters, gender-segregated sanitation facilities, and well-lit pathways will enhance security and privacy. Sanitation facilities will include menstrual hygiene management amenities and proper waste disposal. Common areas will promote inclusivity while preventing harassment, with adequate lighting and surveillance for safety. Accommodation will meet international labor and environmental standards, ensuring proper ventilation and protection. A confidential grievance mechanism will allow workers to report concerns, while regular monitoring will ensure continuous improvements based on worker feedback.

Grievance Redress Mechanism (GRM) for SEA/SH Cases
The grievance redress mechanism for SEA/SH cases will ensure a structured, survivor-centered approach to handling complaints with confidentiality, dignity, and prompt action. It will provide accessible reporting channels, including in-person complaints, hotlines, SMS, and online platforms, ensuring survivors can report incidents without fear of retaliation. Trained personnel will manage cases with a non-judgmental and gender-sensitive approach, prioritizing survivor rights and well-being.
Confidentiality will be strictly enforced through anonymous reporting options, restricted case access, and ethical guidelines for all personnel involved in case management. A zero-tolerance policy for retaliation will be maintained, with strong data protection protocols in place.

A mapping of GBV service providers will establish referral pathways for survivors, identifying medical, psychosocial, legal, and security service providers in project areas. A directory of available services will be developed, with formal agreements ensuring timely access to survivor support. Community awareness efforts will inform affected populations about these services. Survivors will receive medical, psychosocial, and legal aid, including post-rape care, emergency contraception, trauma-informed counseling, and legal assistance. Coordination with law enforcement will ensure survivor-friendly investigations and justice.

Case management will assign trained personnel to oversee each case, ensuring continuous support, follow-up, and coordination with service providers. Regular case reviews will assess the effectiveness of interventions and address service gaps.

Administrative investigations will follow a structured process to determine accountability and disciplinary actions. Trained investigators will handle cases impartially, ensuring survivors are protected from direct interaction with the accused. Disciplinary measures, including suspensions, terminations, or legal proceedings, will be enforced as needed.

GBV/SEA/SH Action Plan for Mozambique Urban Water Security Project

Component	Objective	Activities	Responsible	Location	Indicators	Resources Needed	Estimated Budget (USD)
1. **Prevention Measures**	1.1 Reduce GBV/SEA/SH risks among workers and communities	1.1.1 Conduct SEA/SH awareness training for project staff, contractors, and workers	PIU, Contractors, NGOs	All project sites	% of workers and community members trained	Training materials, facilitators	$30,000
		1.1.2 Implement community awareness campaigns targeting women, girls, and vulnerable groups	PIU, NGOs, Community Leaders	Maputo, Matola, Xai-Xai, Inhambane	Number of awareness campaigns conducted	Educational materials, facilitators	$40,000
		1.1.3 Provide specialized training for law enforcement, health professionals, and social workers on survivor-centered response	Ministry of Gender, Health Facilities, Law Enforcement	Maputo, Matola, Inhambane, Xai-Xai	Number of professionals trained	Training materials, venues	$10,000

		1.1.4 Develop and disseminate educational materials (brochures, posters, radio messages) in local languages	PIU, NGOs	All project sites	Number of materials distributed	Printing, media engagement	$30,000
	1.2 Enforce Codes of Conduct	1.2.1 Require all project workers to sign a Code of Conduct explicitly prohibiting SEA/SH	Contractors, HR Teams	All project sites	% of workers signing acknowledgment	Legal review, monitoring team	$20,000
		1.2.2 Establish monitoring mechanisms to ensure compliance	PIU, Compliance Officers	All project sites	Number of compliance checks conducted	Audits, reporting tools	$35,000
		1.2.3 Implement disciplinary actions for violations	PIU, Legal Advisors	All project sites	% of cases with appropriate action taken	Enforcement team, legal advisors	$2,000
	1.3 Community Engagement	1.3.1 Facilitate community dialogues to raise awareness of GBV risks and encourage reporting	NGOs, Community Leaders	Boane, Marracuene, Chibuto, Moamba	Number of community engagement sessions held	Venues, facilitators	$30,000

		1.3.2	Partner with women's organizations, youth groups, and religious leaders	PIU, NGOs	All project sites	Number of partnerships established	Collaboration meetings	$15,000
	1.4 Infrastructure Safety Measures	1.4.1	Install adequate lighting and security in high-risk areas such as water points and worker camps	PIU, Contractors	Boane, Marracuene, Chibuto, Moamba	Number of facilities with improved safety measures	Security infrastructure, lighting	$50,000
		1.4.2	Establish safe spaces for women and girls in project-affected areas	NGOs, Local Authorities	Maputo, Matola, Xai-Xai, Inhambane	Number of safe spaces created	Community engagement, facilities	$50,000
	1.5 Strengthen Reporting Mechanisms	1.5.1	Set up a confidential grievance redress mechanism (GRM)	PIU, Social Safeguards Specialists	All project sites	Number of reported and resolved cases	Hotline setup, grievance officers	$100,000
		1.5.2	Train GBV focal points in each project site to handle complaints sensitively	PIU, GBV Specialists	All project sites	Number of trained focal points	Training workshops, capacity building	$40,000

	1.6 Partnership with GBV Service Providers	1.6.1 Map existing GBV response services	PIU, Ministry of Gender	All project sites	Number of mapped service providers	Service mapping, collaboration meetings	$20,000
		1.6.2 Develop formal referral pathways	PIU, Government, NGOs	All project sites	Number of formalized referral agreements	Workshops, legal documents	$30,000
2. **Response and Mitigation Strategies**	2.1 Strengthen survivor-centered response	2.1.1 Establish Grievance Redress Mechanism (GRM) with confidential reporting channels	PIU, Compliance Officers	All project sites	% of SEA/SH cases reported and resolved	Hotline, case management system	$120,000
		2.1.2 Link survivors to medical, legal, and psychosocial support services	NGOs, Health Facilities, Legal Aid	Maputo, Matola, Xai-Xai, Inhambane	Number of survivors receiving services	Referral network, survivor support fund	$40,000
		2.1.3 Ensure safety measures for survivors, including emergency shelters	NGOs, Local Authorities	Maputo, Matola, Xai-Xai, Inhambane	Number of survivors placed in shelters	Safe house facilities, operational budget	$3,000
	2.2 Law Enforcement and Judicial Response	2.2.1 Train law enforcement and judicial personnel on handling	Ministry of Justice, Law Enforcement, Judiciary	Maputo, Matola, Xai-Xai, Inhambane	Number of personnel trained	Training resources, workshop logistics	$20,000

		SEA/SH cases					
3. **Monitoring, Evaluation, and Reporting**	3.1 Ensure effective implementation of GBV risk mitigation	3.1.1 Conduct regular compliance audits on SEA/SH measures	PIU, Independent Auditors	All project sites	Number of audits conducted	Audit tools, monitoring teams	$60,000
		3.1.2 Maintain a confidential case management system	PIU, Social Safeguards Unit	All project sites	% of cases tracked and resolved	Case management software, trained personnel	$10,000
		3.1.3 Monitor survivor referrals to support services	PIU, NGOs	Maputo, Matola, Xai-Xai, Inhambane	% of referred survivors accessing services	Reporting tools, field visits	$15,000
		3.1.4 Conduct mid-term and end-of-project evaluations	Independent Evaluators	All project sites	Number of evaluations completed	Evaluation team, reporting framework	$70,000
	3.2 Reporting Mechanisms	3.2.1 Develop quarterly and annual reports on SEA/SH risk mitigation	PIU, Social Safeguards Unit	All project sites	Number of reports published	Data collection tools, reporting staff	$50,000
		3.2.2 Ensure transparent reporting of grievances	PIU, GRM Specialists	All project sites	% of grievances addressed	Secure database,	$15,000

		while maintaining confidentiality				reporting system	
		3.2.3 Provide accessible updates to stakeholders and affected communities	PIU, Community Leaders	All project sites	Number of public disclosures made	Community outreach, media engagement	$25,000
TOTAL							$930,000 USD

Comparative Analysis of GBV Service Provision by Project Location

District	Availability	Bureaucratic Accessibility	Social Accessibility	Information Accessibility	Physical Accessibility
Maputo City	Multiple health, legal, and police services available, but limited after hours.	Hospitals are accessible; legal services require formal complaints.	High stigma in reporting GBV, especially domestic violence cases.	Limited public awareness of available services.	Urban location ensures proximity to services.
Matola City	Good availability of health services, but legal aid and police units operate within business hours.	Health services accessible, but police and legal aid require documentation.	Moderate stigma; survivors fear retaliation and lack community support.	Few public campaigns; many survivors unaware of services.	Hospitals and police stations are reachable, but transport is costly.
Boane District	Health and police services exist but with limited coverage in remote areas.	Moderate accessibility; police and legal services require complex procedures.	Low due to cultural norms; few survivors report cases.	Lack of structured information dissemination.	Some services far from residential areas; transport costs are high.

Marracuene District	Limited GBV-specific services, health services available, but police response weak.	Difficult bureaucratic processes; many survivors do not pursue cases.	High stigma; survivors fear social exclusion if they report abuse.	Survivors often do not know where to seek help.	Long travel distances for many survivors to access support.
Moamba District	Few health and legal services; survivors travel to nearby districts for assistance.	Very limited legal services; bureaucratic hurdles deter survivors.	Very high stigma; many cases remain within family structures.	Information on GBV services is scarce in rural areas.	Remote areas poorly served, survivors must travel for assistance.
Xai-Xai City	Limited GBV services; relies on main hospital and local police support.	Complex legal procedures; survivors face challenges in reporting.	Cultural attitudes prevent open reporting; fear of victim-blaming.	Few information campaigns; legal aid services poorly advertised.	Limited transport access to health and legal services.
Chibuto Town	Minimal specialized GBV services; dependency on provincial health and legal systems.	Legal aid available but hard to access due to documentation requirements.	Very low acceptance; survivors discouraged from seeking help.	Minimal awareness efforts; survivors lack knowledge of their rights.	Health services available, but legal services require long travel.
Inhambane City	Tourism-driven service providers but lacking dedicated GBV centers.	Legal and police services exist but require formal legal processes.	Moderate stigma, but tourism sector cases sometimes gain attention.	Some awareness in tourism sector but limited outreach for locals.	Good access to hospitals but limited reach of legal services.

Accountability and Responsibility Framework for the Implementation of the GBV SEA/SH Action Plan

Stakeholder	Responsibilities	Accountability Mechanisms
Ministry of Public Works, Housing, and Water Resources (MOPHRH)	Oversees the integration of GBV SEA/SH risk mitigation into project policies and ensures high-level accountability.	National-level audits, policy evaluations, and strategic oversight of implementation.

National Directorate for Water Supply and Sanitation (DNAAS)	Ensures that GBV SEA/SH policies are embedded in sanitation and water service regulations and guidelines.	Regulatory reviews, compliance monitoring, and enforcement of service standards.
National Directorate for Water Resources Management (DNGRH)	Supports water governance policies with provisions to prevent GBV SEA/SH in water access and service provision.	Sustainability assessments, regulatory compliance checks, and stakeholder coordination.
Fundo de Investimento e Património do Abastecimento de Água (FIPAG)	Implements GBV SEA/SH mitigation measures in project sites, ensures contractor compliance, and oversees training programs.	GBV-sensitive audits, contractor performance evaluations, and periodic compliance reporting.
Autoridade Reguladora de Águas (AURA)	Regulates service providers to ensure they comply with GBV SEA/SH policies and have safeguarding measures in place.	Service quality assessments, regulatory compliance checks, and periodic public reporting.
Administração de Infraestruturas de Água e Saneamento (AIAS)	Ensures that water infrastructure projects integrate GBV SEA/SH safeguards, including safe facilities and reporting mechanisms.	Environmental and social impact assessments, monitoring of project sites, and compliance verification.
Regional Water Administrations (ARA-Sul, ARA-Centro, ARA-Norte)	Integrates GBV SEA/SH risk management into regional water resource planning and administration.	Water resource governance monitoring, GBV risk audits, and compliance enforcement.
Municipalities	Ensure local enforcement of GBV SEA/SH mitigation measures in water service delivery and community engagement.	Local government oversight, citizen feedback mechanisms, and adherence to national policies.
Private Water Providers (PWP)	Implement workplace GBV SEA/SH policies, train employees on safeguarding, and provide grievance mechanisms for workers and consumers.	Compliance monitoring, licensing reviews, and adherence to GBV codes of conduct.

Civil Society Organizations (CSOs)	Advocate for survivor-centered approaches, conduct community awareness campaigns, and support victims of GBV SEA/SH.	Public reporting, community impact assessments, and partnership evaluations.
Community Representatives	Raise awareness, monitor implementation at the local level, and ensure community grievances related to GBV SEA/SH are addressed.	Community-based monitoring, grievance reporting, and participation in project evaluations.
Contractors and Project Implementers	Enforce GBV SEA/SH codes of conduct among workers, provide mandatory training, and establish reporting mechanisms.	Contract compliance audits, performance reviews, and disciplinary actions for violations.
Grievance Redress Mechanism (GRM) Team	Handle reports of GBV SEA/SH violations, ensure confidentiality, and provide survivor-centered response services.	Grievance response tracking, case resolution reviews, and independent evaluations.

Code of Conduct for Contractor's Personnel

We the Contractor/Subcontractor, _____ also referred to herein as 'the company', have signed a contract with FIPAG also referred to herein as 'the employer' for the implementation of the **Mozambique Urban Water Security Project**
We are dedicated to conducting project activities in a manner that significantly reduces any detrimental effects on the environment, local communities, and Contractor's personnel.

All Contractor's personnel must align with these fundamental principles and adhere to the established minimum standards of behavior without any exceptions. This Code of Conduct (CoC) applies to all individuals working under the project.This encompasses employees from all levels of companies, contractors, subcontractors, consultants, suppliers, and those stationed at project sites or lodging facilities provided by the contractor, whether on or off duty.

REQUIRED CONDUCT
More specifically, contractor personnel are required to implement the principles below:

1. Perform duties with competence and diligence.
2. Comply with the Code of Conduct and all applicable laws, regulations, and other requirements to protect the health, safety, and well-being of other contractor personnel and any other person.
3. Report work situations that may not be safe or healthy and discontinue any activity that may present an imminent or serious danger.
4. Treat others with respect, including other contractor personnel and members of the local community and concession companies.
5. Not discriminate against others based on family status, ethnicity, race, gender, religion, language, marital status, age, disability (physical and mental), sexual orientation, gender identity, political or social belief, civic, socioeconomic status, place of birth or health status, including HIV status.
6. Wear the appropriate personal protective equipment provided by the company.
7. Do not work under the influence of alcohol or drugs, including medications that inhibit motor and/or cognitive functions.
8. Never use child or compulsorily hired labor.
9. Do not engage in acts of GBV/SEA/SH including violence against children (VAC) and other vulnerable people.
10. Participate in training that will be given by the Contractor related to the environmental and social aspects of the Contract, including health and safety issues, exploitation, abuse, and sexual harassment including violence against children and vulnerable persons, and the implementation of the Grievance Mechanism (GM).
11. Use the GM (Grievance Mechanism) to report violations of this Code of Conduct.
12. Not to retaliate against anyone who reports violations of the Code of Conduct, either to the Contracting Entity or the Contractor, including using the project's GM.

HEALTH & SAFETY

1. Contractor's personnel are prohibited from working under the influence of alcohol or drugs, including medications that impair cognitive function.
2. All Contractor's personnel must maintain a safe working environment, including:
    a. ensure that workplaces, machinery, equipment, and processes under the control of each person are safe and free from health risks.
    b. Wear necessary Personal Protective Equipment (PPE).
    c. provide for the use of appropriate measures related to chemical, physical and biological substances and agents.

d. Follow applicable emergency operating procedures.
e. All security or execution personnel involved in the project must always perform their duties under the law, serving the community and protecting all persons from illegal acts, by the high degree of responsibility required by their profession.
    i. During their duties, project staff must respect and uphold the human rights and dignity of all individuals.
    ii. These rights are protected by national and international laws, including, but not limited to, the Universal Declaration of Human Rights and related conventions.
    iii. The use of force must be exceptional and proportionate to the objective to be achieved.
    iv. Firearms are an extreme measure and should only be used in difficult circumstances.
    v. No personnel may inflict, condone, or justify torture or other cruel treatment, regardless of the circumstances.

SEXUAL EXPLOITATION, ABUSE, AND HARASSMENT

3. The company enforces a strict prohibition against all forms of GBV/SEA/SH and applies penalties to the Contractor's personnel found guilty. These penalties may vary, encompassing measures from warnings to the termination of an employee's contract. Moreover, the company reserves the right to report individuals involved to legal authorities for further action.
4. The understanding of SEAH extends to recognize its various manifestations.
    a. Rape: Physically forcible or otherwise coerced penetration – however slight – of the vagina, anus, or mouth with a penis, other body part, or object. Rape includes marital rape and anal/sodomy rape. The attempt to do so is known as attempted rape. The rape of a person by two or more perpetrators is known as gang rape.
    b. Sexual Assault: any form of non-consensual sexual contact that does not result in or includes penetration. Examples include attempted rape, as well as unwanted kissing, fondling, or touching of the genitals and buttocks.
    c. Sexual Harassment: unwanted sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature. Sexual harassment is not always explicit or obvious, it can include implicit and subtle acts, but it always involves power and gender dynamics in which one person in power uses their position to harass another based on their gender. Sexual conduct is not welcome whenever the person subjected to it considers it unwanted. Examples include looking someone up and down; sounds of kissing, howling, or tapping; living with someone; whistles and cats; in some cases, giving personal gifts.
    d. Sexual favors: A form of sexual harassment that includes making promises of favorable treatment (e.g., promotion) or threats of unfavorable treatment (e.g., job loss) dependent on sexual acts or other forms of humiliating, degrading, or exploitative behavior.
    e. Sexual Exploitation: 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. Sexual exploitation can also include lying about someone's intentions, position, or influence for sexual purposes.
    f. Physical Assault: an act of physical violence that is not sexual. Examples include: hitting, slapping, choking, cutting, pushing, burning, shooting, or using any weapon, acid attacks, or any other act that results in pain, discomfort, or injury.

g. Child marriage: refers to any formal marriage or informal union between a child under the age of 18 and an adult or other child.
h. Trafficking in Persons: refers to any activities such as the recruitment, transportation, transfer, harboring, or receipt of individuals through means of force, fraud, or coercion, with the intent of exploitation. This includes, but is not limited to, forced labor, sexual exploitation, and various forms of contemporary slavery.
i. Denial of Resources, Opportunities, or Services: denial of legitimate access to economic resources/assets or livelihoods, education, health, or other social services. Examples include income forcibly earned by an intimate partner or family member, a woman barred from using contraceptives, or a girl barred from attending school).
j. Psychological/Emotional Abuse: inflicting mental or emotional pain or injury. Examples include threats of physical or sexual violence, intimidation, humiliation, enforced isolation, stalking, harassment, unwanted attention, comments, gestures, or written words of a sexual and/or threatening nature, or destruction of loved ones.

Execution

5. All contractor personnel are urged to report both suspected and confirmed instances of SEAH perpetrated by any employee, regardless of whether they work for the same contractor or subcontractor.
6. It's imperative to follow the GM protocols and the project's guidelines for all suspected and confirmed incidents. This includes employing the established measures to safeguard survivors.
7. Actively support the imposition of penalties on contracted personnel found guilty underscoring the company's commitment to maintaining a safe work environment.
8. Advocate for and enforce non-retaliatory practices for anyone who reports violations, ensuring that whistleblowers are protected.
9. Contractor personnel must not invite or bring children into their accommodations, except in dire emergencies where the child is at immediate risk of harm. In such cases, the Contractor or monitoring staff should be notified immediately.
10. Employees are prohibited from inviting women, regardless of age, to their accommodations, both within and outside the camp.
11. The use of computers, cell phones, video cameras, or any electronic devices and social media for exploiting, harassing, or accessing sexually exploitative or abusive material, including pornography, is strictly forbidden.
12. Engage in the collaborative effort to implement risk mitigation strategies and participating in training, conducting root cause analysis meetings, performing security audits of the camps, and disseminating communication materials, such as whistleblower boxes, to promote awareness and prevention.

Raising the Concerns

1. If any contractor personnel company observes behavior that represents a violation of this Code of Conduct, it must report it immediately by contacting: Contact [insert name of safeguards Specialist].
2. Call Toll free[Insert number]. to contact the project complaint line.

Consequences of violating the code of conduct

Any violation of this Code of Conduct will result in serious consequences, including termination of the contract, reporting to local authorities, penalties according to the severity of the CoC violation
I acknowledge that I have read the Code of Conduct of the above and confirm that I am authorized to sign on behalf of the company.

For contractors personnel
Name of: [insert name]
Signature:_____
Date: (day/month/year): _____

Signature of the Client's representative:
Signature: _____
Date: (day/month/year): _____

Annex 7 - List of Excluded Activities

1. Production or trade in any product or activity deemed illegal under laws or regulations of Mozambique or international conventions and agreements.
2. High risk Environmental and Social category activities in accordance with the Government of Mozambique regulations and WB ESF Risk Categorization under ESS-1.
3. Production or trade in weapons or ammunitions.[1]
4. Gambling, casinos and equivalent enterprises.[1]
5. Production or trade in alcoholic beverages (excluding beer and wine).[1]
6. Activities targeting tobacco manufacturing, processing, or specialist tobacco distribution, and activities facilitating the use of tobacco.[1]
7. Trade in wildlife or wildlife products regulated under Convention on International Trade in Endangered Species (CITES).
8. Production or trade in radioactive materials. This does not apply to the purchase of medical equipment, quality control (measurement) equipment and any equipment where DBE considers the radioactive source to be trivial and/or adequately shielded.
9. Production or trade in or use of unbounded asbestos fibres.
10. Any activities involving significant degradation or conversion of natural[2] and/or critical habitats[3] and/or any activities in legally protected areas.[4]
11. Activities damaging to national monuments activities that are located in or impacting on areas with physical cultural property[5] attributes;
12. Unsustainable fishing practices such as electric shocks or explosive materials.
13. Production or trade in wood or other forestry products other than from sustainably managed forests.[6]
14. Production or trade in pharmaceuticals, pesticides/herbicides, ozone depleting substances, polychlorinated biphenyls (PCBs) subject to international phase outs or bans.
15. Production or activities involving harmful or exploitative forms of forced labor[7] or harmful child labor[8].
16. Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale usage of hazardous chemicals (gasoline, kerosene, other petroleum products, textile dyes etc.).
17. Activities involving land acquisition and/or restrictions on land use resulting in involuntary resettlement or economic displacement.

Annex 8 - Environmental and Social Policies, Regulations and Laws

The Constitution of Mozambique, approved in 2004, Articles 45, 90 and 117 establishes the policies and principles that guide the protection and preservation of the environment. The law points out that every community has the right to live in a healthy and safe environment and has the duty to protect it. While Article 117 of the Constitution states that everyone has the right to an ecologically balanced environment, a healthy quality of life, it also imposes on the government and the community the duty to protect and preserve the environment for present and future generations.

National Environmental Policy (Resolution No. 5/95) - Provides the basis for various other environmental legislation. The instrument has been enacted to ensure sustainable development while maintaining an acceptable balance between socio-economic development and environmental protection. It stipulates that the integration of environmental considerations in socio-economic planning, the management of the country's natural resources and the protection of ecosystems are essential ecological processes. The relevance of this instrument for the project is that the provision contained in it should be reflected in the project to minimize the project risks and impacts on natural resources and ecosystems.

In 1997 the Environmental Act (Act no. 20/97, October 1) was approved, which requires that all public and private activities with the potential to influence the environment must be preceded by an EIA in order to identify and mitigate possible impacts resulting from the project, a process that culminates with the environmental licensing. The Act defines the EIA process as a tool for environmental management and supports the GoM in taking decisions regarding the allocation of environmental permit for project development (Article 15). Article 4 of the Environment Law establishes a range of basic legal principles, which highlight:
the principle of rational use and management of environmental components, with a view to further improve the quality of life of citizens and the maintenance of biodiversity and ecosystems;
the precautionary principle, whereby the environmental management should prioritize the establishment of systems to prevent acts that could be harmful to the environment, to prevent the occurrence of significant negative environmental impacts or irreversible damage, regardless of the existence of scientific certainty about the occurrence of such impacts; and
the principle of global and integrated vision of the environment as a set of interdependent natural ecosystems, which must be managed so as to maintain their functional balance.
Environmental Law (Law No 20/97) also provides for the participation of local communities in the formulation of policies and laws related to natural resource management, management of protected areas, which is of relevance to the Program. This law has formed the basis for defining specific environmental laws and regulations.

Regulation for Environmental Impact Assessment - ESIA (Decree No. 54/2015, of December 31st)
The Labor Law (23/2007) - is the main statute governing all aspects of the employment relationship. There is also other derivative legislation on various lateral aspects of the employment relationship (e.g., the legal framework on domestic work. It also determines the minimal wages per sector. For the 2020 construction sector, the minimum wages were approximately six thousand and six hundred fifty meticais (6,650 Meticais). However, a new Labor Law was recently approved, the Law no 13/2023 of August 25th, which will come into force in February 2024. The most significant changes introduced in this new Law include:

- freedom given to small and medium-sized enterprises to enter fixed-term contracts, to make their activity more viable.
- imposition of a maximum term for the duration of fixed-term contracts, under penalty of them being considered converted into long-term/ permanent contracts.
- right to vacation: 12 days in the first year of the contract and 30 days in subsequent years.

- adoption of principles relating to teleworking/ working from home, which derive from the practice introduced during the Covid 19 pandemic.
- acceptance of the working practices and customs of each profession, sector of activity or company as sources of labor law, as long as they are not contrary to the law and the principle of good faith.acceptance of codes of conduct established between the parties, as a source of right to work.
- possibility of suspension of the employment relationship due to unforeseeable circumstances or force majeure.
- establishment of a sanctioning regime for cases of harassment at work.
- permission for alternating working hours.

The country was also established by Law No. 4/2007 of February 7, the legal framework for social protection. This Law defines the foundation that underpins Social Protection and organizes the Social Protection system. The social protection system is structured in three levels, namely: a) Basic Social Security; b) Mandatory Social Security; c) Complementary Social Security. The mandatory social security has the objective to ensure the livelihood of workers who lack or have a decreased capacity to work as well as to ensure the livelihood of surviving family members in case of the death of the aforementioned worker and to provide supplementary conditions for survival. Contributions to mandatory social security are distributed between employers and workers.

Water Policy (Resolution No. 46/2007) – It provides aspects of sanitation in urban areas, peri-urban and rural areas, hydrologic networks, development of new hydraulic infrastructure, and integrated management of water resources with the participation of interested parties.

Water user use (Law No. 16/91) – The policy seeks to protect ecological balance and environment. The use of water requires concession- permanent or long-term water uses; or a water license- short term water uses. Licenses are issued for a period of 5 renewable years, while concessions may go up to 50 renewable years. The law provides that any activity with the potential of contaminating or degrading public waters, in particular the discharge of effluent, is subject to a special authorization to be issued by the Regional Water Administration and payment of a fee. If the project requires the abstraction of water from natural sources, a water license must be obtained from the competent authority (Regional Administration of the Waters). If the project requires the discharge of effluents into water bodies (such as may be required by construction camps), a license must be obtained.

Pollution (Law No. 20/97) – The law forbids the production and deposition of any toxic or polluting substances on soils, sub-soils, water, or the atmosphere, as well as forbidding any activities which are likely to accelerate any form of environmental degradation beyond the legally established limits. The project needs to include measures to prevent pollution throughout its life cycle. Project compliance with regulation is critical.

Land Policy (Resolution No. 10/95) – It sets out that the State must provide the land for each family to build or possess their habitation, and is responsible for land use and physical planning, although plans can be made by the private sector. The principle of this policy must be incorporated into the CRRN project.

Land use rights (Law No. 19/1997) – Establishes the rights of land use, including details on customary rights and procedures for acquisition and use of land titles by communities and individuals. The law recognizes and protects the rights acquired through inheritance and occupation (customary rights and duties of good faith), except for legally defined reserves or areas where land has been legally transferred to another person or institution. It provides that the 15 m corridor surrounding secondary and tertiary roads, and the 30 m corridor for primary roads, is defined as public domain. The land use in this corridor is thus reserved for the road,

water infrastructure. The project compliance with this provision is critical and it should inform the resettlement and compensation process, if applicable.

Biodiversity protection (Law No. 20/97) – Covers aspects of guaranteeing the protection of biological resources, particularly of plant or animal species threatened with extinction or any similar issues, by their genetic value, ecological, cultural, or scientific, require special attention. Protection is extended to their habitats, especially those built-in areas of environmental protection. This law is in line with the conservation areas (Law No. 16/2014), which stipulates that all activities that could result in changes to land and vegetation cover, or that could disturb flora, fauna, and ecological processes up to the point of compromising their maintenance, are forbidden within national parks, except if required for scientific reasons or management needs. It also indicates that activities can be approved within conservation areas, provided that a management plan is developed and approved.

Forest and wildlife protection (Law No. 10/99) - Provides the fundamentals and basic rules on protection, conservation, and sustainable use of forest and wildlife resources. Defines protection zones as territorial delimited areas, representative of the national natural heritage, designated for their biodiversity and fragile ecosystems, or the conservation of animal and plant species. It ensures that all activities that result in changes to land, disturbance to flora or fauna as well as water pollution are forbidden within national parks. The protection of forests and fauna under the CRRN Project is paramount. Decree No. 12/2002 approves the regulation of Law 10/99 and applies to protection, conservation, use, exploration, and production activities of fauna and flora resources.

Conservation areas (Law No. 16/2014 on Protection, Conservation and Sustainable Use of Biological Diversity,) - It stipulates that all activities that could result in changes to land and vegetation cover, or that could disturb flora, fauna and ecological processes up to the point of compromising their maintenance, are forbidden within national parks, except if required for scientific reasons or management needs. It also indicates that activities can be approved within conservation areas, provided that a management plan is developed and approved.

Conservation Law No. 5/2017, Article 11 states that a public or private entity exploiting natural resources in a conservation area or its buffer zone must contribute financially to the protection of biodiversity in the conservation area in question and compensate for impacts to ensure there is no net loss of biodiversity.

Cultural Heritage (Law No. 10/88) – This seeks to protect material and non-material assets of the Mozambican cultural heritage. Material cultural assets include monuments, groups of buildings with historic, artistic or scientific importance, places or locations (with archaeological, historic, aesthetic, ethnologic or anthropologic interest) and natural elements (physical and biological formations with particular interest from an aesthetic or scientific point of view). If archaeological objects are found during subprojects implementation, this law shall apply and the subcontractor shall communicate the finding to the appropriate cultural heritage agency, immediately. To meet this requirement, a Chance Finds Procedure has been prepared as part of this ESMF.

MOZAMBIQUE NATIONAL ENVIRONMENTAL AND SOCIAL ASSESSMENT AND PERMITTING

Environmental and Social Assessment, Audit, and Inspections

Regulation for Environmental Impact Assessment - ESIA (Decree No. 54/2015, of December 31st) - It defines the fundamental instruments for environmental management, the ESIA, which aims at mitigating the negative impacts that certain projects, in the public and

private sectors, may cause to the natural and socio-economic environment, through the undertaking of environmental and social studies prior to commencement of the projects. This also sets out the environmental and social impact assessment process, required environmental and social studies, public participation process, the studies review process, project environmental and social viability decision process, and environmental and social license emission. So, any project should be submitted to a formal ESIA process, under this regulation. So, for project an environmental license needs to be obtained from MITA, and the issuance of the environmental license precedes any other license or permit required for the subprojects.

Regulation on the Environmental Audit Process (Decree No. 25/2011) – Relates to the need and process for an environmental audit. It indicates that an environmental audit is a documented and objective instrument for management and systematic assessment of the management system and relevant documentation implemented to ensure the protection of the environment. Its objective is to assess compliance of work and operational processes with the environmental management plan, including the environmental legal requirements in force, as approved for a particular project. The proposed project should require independent environmental audits, without prejudice to the public that may be requested under this decree during the implementation phase.

Regulation for Environmental Inspections (Decree No. 11/2006) – It governs the supervision, control, and verification of compliance with environmental protection rules in the country. It may happen that, during project implementation, MITA carries out inspections to verify compliance with environmental legislation and site management instruments (Environmental and Social Management Plan- ESMP). FIPAG shall allow for and facilitate the undertaking of such inspections.

Procedures on environmental licensing (Ministerial Diploma No. 129/2006) – stipulates the environmental license procedures, its format, and outline and contents of an environmental impact assessment report. The ministerial diploma aims to standardize the process and the procedures followed by various players in the environmental impact assessment process. The Project safeguards instruments (ESIA, ESMP, and Resettlement plans) reports for various subprojects, should be aligned with the provision of this regulation.

Public Participation methodologies and procedures (Ministerial Diploma No. 130/2006) - Defines the basic principles related to public participation, methodologies, and procedures. Considers public participation as an interactive process that initiates at the design stage and continues through the lifetime of the project. It defines that Public Participation Process (PPP) for ESIA must conform to the guidelines provided in this Ministerial Diploma.

Labor and Working Conditions

Protection of Workers with HIV and AIDS (Law nº 5/2002) – It sets out general principles that aim to ensure that all employees and job applicants are not discriminated against in the workplace or when applying for jobs, for being suspected of having or having HIV and AIDS. Under the law, an employee who is infected with HIV and AIDS in the workplace, in connection with their professional occupation, in addition to the compensation which one is entitled to have, one must have adequate health care guaranteed to relieve one's health status, according to the labor law and other applicable legislation, funded by the employer. Under the same law, it is prohibited to test for HIV and AIDS in workers, job seekers, candidates to evaluate the training or promotion candidates at the request of employers, without the employee's or job seeker consent. The project must ensure that workers involved in the project, are aware of the law, and where workers are infected, they shall be placed in positions compatible with their residual capacities.

Labor inspection (Decree nº 45/2009) – This regulation lays down the rules on inspections, under the control of the legality of work It states the employer's responsibility for the prevention of occupational health and safety risks of the employee. These provisions must be enforced under the project especially concerning contractors involved in different subprojects.

Labor relations (Law Nº 23 /2007) – This law governs work relations between employers and domestic and foreign workers in all industries. The law includes principles of safety, hygiene, and health of workers. Under the law, an employer must provide their employees, good physical condition, environmental and moral work, inform them about the risks of their work, and instruct them about compliance with the standards for hygiene and safety at work. The employer must also provide first aid to workers in the event of accidents, sudden illness, poisoning, or feeling unwell. This law shall be applied under the Project especially to all contractors operating under various subprojects. Under this law, child labor is prohibited as it does not allow for employment below 18 years old.

There is no specific legislation on Gender. However, the Ministry of Gender has developed policies and strategic plans to decrease gender-based inequalities within different sectors. Therefore, Gender is mainstreamed in different pieces of legislation. In the last years, the Parliament has approved the **Family Law 10/2004 of 25 August 2004**, the reformed Family Law establishes gender equality, later, approved the **Law Nr 29/2009 on Domestic Violence 2009**, in 2019 the parliament passed on the Law Against Early Marriages.

Resource Efficiency and Pollution Control Management:

General Pollution Management

Environmental law (Law No. 20/97) - Establishes the maximum standard of toxic substances allowed for discharge into the air. The emissions are further stipulated in Decree No. 18/2004. This law is relevant for the project given the permitted level of emissions by law, so as not to harm the environment.

Regulation for Environmental Standards and Effluent Emission (Decree No. 18/2004 (as amended by Decree No.67/2010) - Establishes parameters for the maintenance of air quality; patterns of emission of gaseous pollutants for various industries; and standards for emission of gaseous pollutants from mobile sources - including light and heavy vehicles. The Project shall comply with the air quality standards, considering the admissible emissions by law, so as not to harm the environment.

Water Quality

Water quality for human consumption (Ministerial Diploma n.º 180 / 2004) - Defines water quality standards for human consumption and define measures for its control, to protect public health. Any project must meet water quality standards for human consumption.

Environmental Quality Standards and Effluent Emissions Decree No. 18/2004 – this defines that when an industrial effluent is discharged into the environment, the final effluent must comply with discharge standards established. The law also incorporates the discharge of domestic effluents.

Waste Management

Regulation on urban solid waste management (Decree No. 94/2014) – Establishes the legal framework for the management of municipal solid waste. The key objective is to establish rules for the production, collection, or disposal of municipal solid waste to minimize their

negative impacts on health and the environment. Municipal solid waste, under this regulation, is classified according to the NM339 Mozambican Standard - Solid Waste - Classification. Waste management obligations are assigned to Municipal Councils and District Governments in their respective areas of jurisdiction.

Hazardous Waste Management (Decree No. 83/2014) – Establishes the legal framework for hazardous waste management. The key objective is to lay down rules for the production, collection, or disposal of hazardous waste to minimize the negative impacts on health and the environment. MITA is responsible for hazardous waste management, especially in licensing of management units. Only registered and licensed entities may collect and transport the waste outside the limits of the facilities. The project must conform to the regulation's requirements related to the management of hazardous wastes during construction work and operation.

The environmental legal framework is overall referred to as the need for balanced development and recognized the vulnerability of Mozambique to Climate Change. In 2010 the country approved the National Climate Change Adaptation and Mitigation Strategy (NCCAMS), which represents a turning point in Mozambique's response to the challenges of climate change, indicating a clear set of strategic actions to be implemented so that Mozambique can ensure a more prosperous, resilient and sustainable future.

Land Use and Rights

Protection Zones (Decree No. 66/98) – This regulation defines total and partial protection zones. In these zones, land use is restricted, and the project should consider the interferences with these protection zones so that the implementation does violate this provision of the law. It is a regulation that defines total protection areas, set aside for nature conservation and State defence, as well as partial protection zones, where land-use titles may not be granted, and where activities cannot be implemented without a license. Partial protection zones, which include, amongst others: 50 m strip of land along lakes and rivers, 250 m strip of land surrounding dams and reservoirs, 100 m strip of land along the seafront and estuaries, a strip of 2 km along the terrestrial border, and a 50 m corridor of protection for the railway lines.

Decree 109/2014 on the Regulation of the Use of the Roads and their Protection Zones. Partial protection zones for road infrastructure are defined as a 15 m width along either side of secondary and tertiary roads, a 30 m width on either side for primary roads, and 50m for four lane highways. The land use in this corridor is reserved for road, water infrastructure.

Regulation for the Resettlement Process Resulting from Economic Activities (Decree No 31/2012) – Stipulates rules and basic principles for resettlement processes from the implementation of public or private economic activities. Equally, it provides that the Resettlement Plan is part of the ESIA process and that its approval precedes the issuance of the environmental license.

Technical Guideline of Planning and Implementation Process of Resettlement Plans (Ministerial Diploma No. 156/2014) – It provides the operation of the Regulations on the Resettlement Process and facilitates greater involvement and rapprochement between all parties involved, so that the resettlement does not have a social destructive character but takes the opportunity to develop well- structured and standardized new housing centers. It sets the conceptual framework for the development of Resettlement Action Plans. It equally presents guidelines of the process and identifies the different steps that characterize the development and implementation of the resettlement plan and sets out the content and the results required for each phase. This plan identifies all potentially affected people by the project and characterizes the affected improvements.

Technical Monitoring Commission Regulation (Ministerial Diploma No. 155/2014) – Establishes the organization and functioning of the actors in the monitoring and supervision of resettlement.

Territorial Planning (Decree No. 23/2008) – It establishes regulatory territorial planning measures and procedures, to ensure the rational and sustainable use of natural resources, regional potentials, infrastructure and urban centers, and to promote national cohesion and safety of the population. It deals with issues of procedures for expropriation of private property for national public interest reasons. The regulation provides that expropriation for territorial planning is considered to be of public interest if it aims to acquire areas to build economic or social infrastructure with great social positive impacts. Additionally, it states that expropriation should be preceded by just compensation. Most likely, the project will require the expropriation of land and land rights in the project area. The expropriation process should abide by the requirements stated in this regulation, namely the principle of just compensation for losses of property or goods. It also contains applicable procedures in case someone is opposed to the expropriation and/or wishes to contest the compensation amount. Expropriation requires the issuance of a declaration of public interest for the project.

Guidelines for the Expropriation Process Resulting from Territorial Planning (Ministerial Diploma No. 181/2010) – Sets procedures for the expropriation processes resulting from territorial planning, including procedures for the issuance of a declaration of public interest, compensations for expropriation (including calculation methods) and the expropriation process itself. Expropriation of land and land rights within the project area must follow the procedures established in these guidelines.

Biodiversity Conservation and Sustainable Management of Living Natural Resources

Decree 89/2017 is applicable to the set of values and natural resources existing in the national territory and in waters under national jurisdiction, covering all public or private entities that may directly or indirectly influence the national system of the country's conservation areas, competing to the National Administration of Conservation Areas (ANAC). Protection zones are classified to guarantee the representative conservation of ecosystems and species and the coexistence of local communities with other interests and values to conserve. Protection zones are classified into: a) Total conservation areas; b) Conservation areas for sustainable use. In addition, it regulates the creation, modification and extinction of conservation areas, the administration and management of conservation areas, the management plans and closure program, the permitted and prohibited activities in conservation areas (including hunting activities), the exercise of activities in the conservation areas, including the environmental license, the recovery, restoration or rehabilitation of biodiversity, the mechanisms for compensating the conservation effort, the conservation of the natural habitat, and the protection and inspection of biodiversity, setting the sanctioning regime.

Articles 124 outlines the different types of compensation related to conservation: a) Compensation for ecological services provided by the conservation area and buffer zone; b) Compensation for anticipated and quantifiable impacts in environmental licensing, caused by the use of natural resources in conservation areas and buffer zones, and ensuring that there is no net loss of biodiversity; c) Compensation for unforeseen or unquantifiable impacts on biodiversity in the environmental licensing, in order to achieve no Net Biodiversity Loss; d) Payment for carbon stocks related to a conservation area and its buffer zone.

Article 125 outlines requirements for no net biodiversity loss: 1. No net loss of biodiversity is a goal for a development activity or project, where impacts on biodiversity are fully offset by measures to prevent and minimize the loss of biodiversity. 2. No net loss of biodiversity implies that it should not reduce in the following cases: a) Within a species and between species or vegetation types; b) The long-term viability of species and vegetation types, ensuring the adequate size of their populations and areas of occupation; c) The functioning of groupings of species and ecosystems, including ecological and evolutionary processes.

Annex 9 - List of Excluded Activities

1. Production or trade in any product or activity deemed illegal under laws or regulations of Mozambique or international conventions and agreements.
2. High risk Environmental and Social category activities in accordance with the Government of Mozambique regulations and WB ESF Risk Categorization under ESS-1. For example Project activities which do not occur within the existing rights of way, and are not expected to cause significant adverse risks and impacts on areas of high value or sensitivity (the planned physical works within QNP will be limited to the minimum necessary and potentially impacting activities, such as the operation of auxiliary infrastructure [workers campsites, borrow pits, quarries, concrete/bitumen plants, etc.] will be avoided in such sensitive areas.
3. Production or trade in weapons or ammunitions.
4. Gambling, casinos and equivalent enterprises.
5. Production or trade in alcoholic beverages (excluding beer and wine).
6. Activities targeting tobacco manufacturing, processing, or specialist tobacco distribution, and activities facilitating the use of tobacco.
7. Trade in wildlife or wildlife products regulated under Convention on International Trade in Endangered Species (CITES).
8. Production or trade in radioactive materials. This does not apply to the purchase of medical equipment, quality control (measurement) equipment and any equipment where DBE considers the radioactive source to be trivial and/or adequately shielded.
9. Production or trade in or use of unbounded asbestos fibres.
10. Any activities involving significant degradation or conversion of natural and/or critical habitats[3] and/or any activities in legally protected areas.
11. Activities damaging to national monuments activities that are located in or impacting on areas with physical cultural property attributes.
12. Unsustainable fishing practices such as electric shocks or explosive materials.
13. Production or trade in wood or other forestry products other than from sustainably managed forests.
14. Production or trade in pharmaceuticals, pesticides/herbicides, ozone depleting substances, polychlorinated biphenyls (PCBs) subject to international phase outs or bans.
15. Production or activities involving harmful or exploitative forms of forced labor[7] or harmful child labor.
16. Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale usage of hazardous chemicals (gasoline, kerosene, other petroleum products, textile dyes etc.).
17. Activities involving land acquisition and/or restrictions on land use resulting in involuntary resettlement or economic displacement.