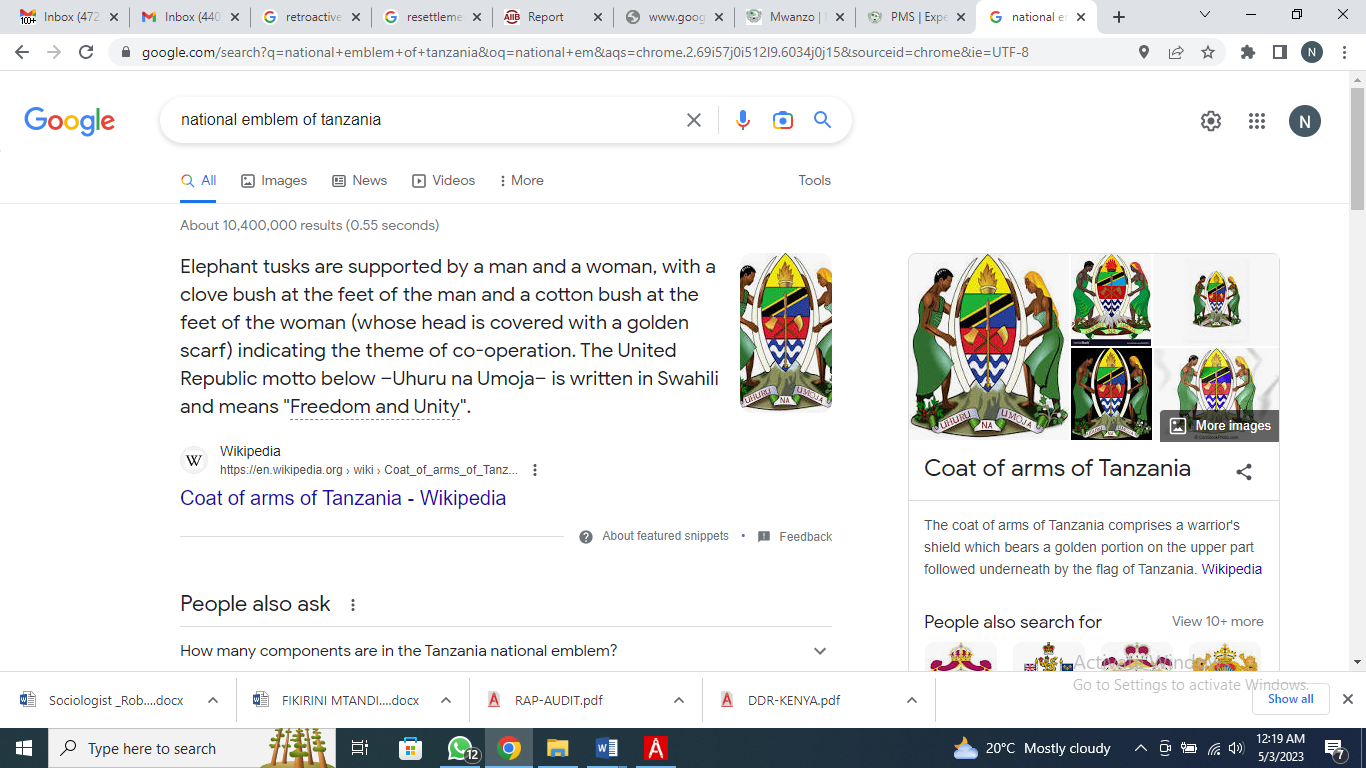
**PRESIDENT’S OFFICE - REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT (PO - RALG)**



# 

# DAR ES SALAAM METROPOLITAN DEVELOPMENT PROJECT – PHASE 2

# ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

**September 2023**

EXECUTIVE SUMMARY

**INTRODUCTION**

The second phase of the DMDP (DMDP II) entails at : (i) increasing coverage of project activities to include the newly established Ubungo and Kigamboni Municipalities of Dar es Salaam; (ii) implementing infrastructure sub-projects that were planned to be executed under DMDP Phase 1 but could not be accommodated due to financing limitation; (iii) make further interventions to address the still unaccomplished high demand for infrastructure development by extending coverage into remaining areas of Kinondoni and Temeke Municipalities, and the Dar es Salaam City (formerly Ilala Municipality) including roads, flood control & storm water drainage, infrastructure facilities in unplanned settlements and other key urban services; and (iv) establish city-wide solid waste management systems and supportive infrastructure & landfill facilities. Therefore, the main objective of this second phase of DMDP is to improve urban services and institutional capacity and strengthen climate resilient development in the Dar es Salaam Metropolitan Area. The focal Ministry for the Project will be President’s Office, Regional Administration and Local Government (PORALG) through the 5 Dar es Salaam Local Authorities (DLAs) (i.e., the Municipal Councils (MCs) of Kinondoni, Ubungo, Temeke and Kigamboni, and the Dar es Salaam City Council (DCC)).

**The rationale for the ESMF**

An Environmental and Social Management Framework (ESMF) is prepared at this stage of project preparation as an instrument required to guide E&S screening, assessment and management of the likely environmental and social risks and impacts associated with the DMDP II Project during the implementation phase. The rationale of using a framework is that specific locations and detailed information about the subprojects can only be known during implementation. The ESMF has been prepared in a consultative manner to meet the Government of the United Republic of Tanzania and the World Bank’s Environmental and Social standard requirements and the approved version will be disclosed before project appraisal process by both Government (through the Implementing Agencies) and the World Bank external website. The PORALG and the 5 Dar es Salaam LGA’s, TARURA and the various other service providers will be responsible for implementing the provisions and recommendations outlined in the ESMF after being reviewed and approved by the World Bank.

This ESMF has been prepared in compliance with the ESF established by the World Bank (WB) as well as the laws, legislation, regulations, and local rules governing Environment Management by the Government of Tanzania. These procedures and regulations altogether require the funding of development plans and programs to be subject to prior assessment and the mitigation of potential environmental and social effects.

**Objectives of the ESMF**

As set in the terms of references for the assignment, the ESMF is prepared to:

* Set out responsibilities for assessing, managing, and monitoring environmental and social risks and impacts associated with each component of the project to achieve environmental and social outcomes consistent with the Environmental and Social Standards (ESSs) of the ESF and those of the Tanzania Government.
* Help PORALG, and LGAs manage the risks and impacts of the project, and improve their environmental and social performance, through a risk and outcomes-based approach. The desired outcomes for the project are described in the objectives of each ESS, followed by specific requirements to help achieve these objectives through means that are appropriate to the nature and scale of the project and proportionate to the level of environmental and social risks and impacts.
* Assist the project implementers to ensure that the sub-projects are environmentally and socially sound and sustainable and that the environmental and social assessment will be proportionate to the risks and impacts of the project.
* Inform the design of the project and be used to identify mitigation measures and actions to improve decision making and manage environmental and social risks and impacts of the project throughout the project life cycle in a systematic manner, proportionate to the nature and scale of the project and the potential risks and impacts. and,
* Ensure that all relevant National and World Bank Environmental and Social requirements are adhered to address the risks and impacts of the project.
* Establish the expectations in terms of the identification and management of environmental and social risks in accordance with the ESF to project stakeholders, including contractors.

**Project Components**

The Project Development Objective (PDO) of the second phase of the DMDP (DMDP Phase II) is to improve urban services and institutional capacity and strengthen climate resilient development in the Dar es Salaam Metropolitan Area.

DMDP Phase II will include the following project components include:

**Component 1**: Climate-Smart Priority Infrastructure- Component 1 is a program of priority investments to address urban infrastructure gaps in a way that responds to increased hazards and risks from climate change and urbanization and helps reduce greenhouse gas emissions. (USD 256Million)

**Sub-Component 1.1: Resilient Transport Infrastructure**

This sub-component will finance transport infrastructure[[1]](#footnote-1) to enhance access to public transport including feeder routes to the BRT and extension or improvement of daladala[[2]](#footnote-2) routes or access to them; The road investments will involve approximately 200 km of existing roads, upgrading them to tarmac and repairing existing damaged tarmac roads.

**Sub-Component 1.2: Resilient and Green Drainage Systems**

This sub-component will build resilience to annual flooding. Incorporating a combination of traditional stand-alone “grey” infrastructure with sustainable urban drainage elements, the approach is to expand capacity of the drainage network while encouraging water retention, storage and infiltration to attenuate flood peaks, increase groundwater recharge water treatment and reduce erosion.

**Sub-Component 1.3: Parks and Open Space**

This sub-component will support the development of parks and greenspace and the protection of flood plains and riparian areas to reduce urban heat, provide recreational areas, drainage and flood protection. These areas will be planned and designed to reduce these climate risks and also provide opportunities for broader area-based benefits (to be identified and developed under subcomponent 1.4) including urban upgrading to enhance economic activity and services in the area, and linkage to non-motorized transport routes. It is estimated to cover about 100 ha of open spaces and flood plains.

**Sub-Component 1.4 Area Based Urban Development.**

The subcomponent will finance the planning, design and infrastructure to support integrated development in targeted geographic locations in the city with important economic, commercial or residential activity, transport and other services. The planning and design will consider compact urban development, access to services, improved transit connectivity and circulation, reduced congestion, improved livability, gender sensitive design including safety and providing an environment to enhance businesses and economic activity.

The subcomponent will finance *inter-alia*: (i) markets; health clinics; childcare centers; buildings for public services and facilities; slaughterhouses, and small scale craft or light industrial areas (ii) urban upgrading features including roads and pathways; signage; greening and landscaping; lighting; and amenities (e.g., areas for traders and concessions, bathrooms, public furniture, public space improvement including car free zones) and (iii) planning studies, detailed planning schemes, detailed design, cadastre and demarcation and environmental and social studies in support of these plans.

Component 2: Metropolitan Solid Waste Management Infrastructure and Services- (50M USD) will develop an integrated solid waste management system for Dar es Salaam, providing infrastructure and services for safe handling, transport and disposal of waste; and sorting and processing of recyclables, composting and other technologies that aim to reduce reliance on landfills and contribute to the reduction of greenhouse gas emissions. It will also strengthen the institutional, regulatory and financing framework and capacity to deliver these services.

Component 3: Strengthening Urban Institutions-. (USD 28.3Million) This component will be implemented by PORALG and will focus on strengthening new and existing institutions and building capacity to achieve improvements in urban and emergency planning, services, and infrastructure, enhancing the sustainability of investments made through Component 1 and 2 and mainstreaming climate friendly urban planning, infrastructure, and services

Component 4: Project Management- This component will finance the direct costs of management and operation of the project to ensure smooth delivery and compliance with World Bank policy and guidelines. It will provide support to the President’s Office – Regional Administration and Local Government (PORALG), DLAs, and the Dar es Salaam City Council Project Implementation Unit (PIU) for continual project supervision, environmental and social monitoring, fiduciary management and auditing, office operating costs.(USD 15.7Million)

**Scope of the ESMF**

This ESMF identifies the potential impacts and risks and associated mitigation and monitoring measures of the proposed activities under the DMDP II project.  The ESMF outlines the approach to screening subprojects; and terms of references for preparation of ESIAs with generic-indicate EHS mitigation measures for subprojects and other investments including those related to Solid waste management. The ESMF includes a practical set of operational guidelines and procedures that will be used by the PIT to guide future ESIA and ESMP preparation.

This ESMF is specifically designed to guide the preparation and implementation phase of the proposed project activities and investments. As some of subprojects are not known at this stage, this ESMF is a mother document that will guide will guide the ESHS assessment of subprojects and activities and preparing of other Environmental and Social Safeguard documents for the sub-projects. These include ESIAs, ESMPs, RAPs and Traffic Management etc. This document draws from the WB Environmental and Social Framework (ESF) and the National Standards and Guidelines on Environmental, Social and Resettlement Management. Specifically, the ESMF contains subproject screening guidelines, impacts identification and evaluation. It also provides generic guidance on mitigation implementation, supervision, monitoring and consultation processes. Furthermore, it describes the grievance redress mechanism of the project.

Geographically, this ESMF covers all the Five LGAs of the Dar Es Salaam Region relevant to DMDP Phase II These include.

* The Dar Es Salaam City Council (formerly known as Ilala Municipal Council)
* Kinondoni Municipal Council
* Ubungo Municipal Council
* Temeke Municipal Council and
* Kigamboni Municipal Council

This ESMF therefore establish a process of environmental and social screening which will permit the institutions in charge of the implementation of the Sub-Projects to identify, assess and mitigate the environmental and social impacts of sub project investments. The ESMF also determines the institutional measures to be taken during the program implementation, including those relating to capacity building.

**POLICY, LEGAL AND REGULATORY FRAMEWORK**

**Overview**

Due to the nature of the project that involve subprojects of different nature, an array of policies and laws are triggered including National and International ones. Tanzania has a good policy, legal and regulatory framework for management of environment and social issues enshrined in the National Constitution, National Environment Management Policy and National Environmental Management Act, the Land Policy and Land Acts as well as supporting local laws and by-laws. The regulatory framework for the project implementation is wide due to the coverage of the project components. In the next sections, relevant legal and institutional frameworks to guide implementation of DMDP II are explained.

**Risks Rating and Applicable World Bank’s Environmental and Social Standards (ESSs)**

The 10 Environmental and Social Standards (ESSs) of the ESF set out the requirements for the Government of Tanzania (GoT) relating to the identification and assessment of E&S risks and impacts associated with projects supported by the Bank through Investment Project Financing. The standards: (a) support GoT in achieving good international practice relating to E&S sustainability; (b) assist GoT in fulfilling their national and international E&S obligations; (c) enhance non-discrimination, transparency, participation, accountability and governance; and (d) enhance the sustainable development outcomes of projects through ongoing stakeholder engagement.

The initial assessment made on proposed project activities/components indicated the environmental risk rating is substantial while the social risk rating is high. To mitigate environmental and social risks the DMDP2 project will apply 7 Environmental and Social Standards (ESSs) which include ESS1 on the Assessment And Management of Environmental and Social Risks and Impacts; ESS2 on Labour and Working Conditions; ESS3 on the on Resource Efficiency and Pollution Prevention and Management, ESS4 on Community Health and Safety, ESS5 on Land Acquisition, Restrictions on Land use and Involuntary Resettlement, ESS6 on Biodiversity Conservation and Sustainable Management of Living Natural Resources, and ESS10 on Stakeholder Engagement and Information Disclosure), as stipulated in the Environmental and Social Framework (ESF).

**National Policies and Legal Framework Relevant to the DMDP II Project**

Some of the relevant policies, relevant laws, and relevant national regulations were prepared in line with the environmental policy and International Conventions, Treaties ratified by the Government of Tanzania support t the implementation of the DMDP II operations

**General Recommendations: Addressing Key Gaps**

In the short term, the following project-by-project arrangements are recommended:

* + Generally, in cases where gaps are found between the WB ESFand the Government of Tanzania Environmental requirements, the World Bank Environmental and Social Standards shall take precedence especially on matters which are not explicitly provided in the National Legislation requirements.
  + For each substantial risk sub-project, the ToRs for the ESIA/ESMP need to be very specific about the process to be followed (including meaningful stakeholder consultation) and the expected contents of the ESIA/ESMP, reviewed and approved by the TARURA & TANROADS (as applicable) and the World Bank.
  + Where applicable, sub-projects ESMPs must be included as a key component of bidding documents and contracts. They must be specific about roles and responsibilities for implementing the ESMP, performance indicators, triggers for remedial actions and reporting arrangements.

Develop mechanisms to improve institutional coordination (such as joint assessments, monitoring) to ensure post ESIA compliance and effectiveness monitoring and supervision; and involvement of the respective LGAs and Statutory Agencies (NEMC, OSHA), during project implementation (construction phase) and O&M phase.

**INSTITUTIONAL ARRANGEMEENT AND CAPACITY BUILDING**

**Project Implementation Arrangements**

The DMDP 2 project will be implemented by President’s Office, Regional Administration and Local Government (PO-RALG) together with TARURA and all five implementing District Local Authorities.

PO-RALG and TARURA have gained vast knowledge and experience on implementation of Urban World Bank funded project through DMDP 1 project implementation in then Kinondoni, Ilala and Temeke Municipalities. The LGAs will be responsible to implement the work, including sub-project safeguards and project reporting to WBCU. Each LGA will establish a full-time PIU staffed with a dedicated team of officers to carry out safeguard responsibilities.

The overall project implementation and coordination function will be undertaken by PO-RALG that has an established Project Coordination Team (PCT) engaged in urban projects in Tanzania in the past.

Implementation of infrastructure and solid waste sub-projects under Component 1 and Component 2 will be undertaken by the five DLA PITs (LGAs PITs, with oversight and coordination by PO-RALG. The Kinondoni, Temeke and Dar es Salaam City Council (formerly Ilala Municipal Council) have in place functional Project Implementation Teams (PITs) with dedicated staff for implementing works that were established under DMDP, including procurement, contract management, environmental and social standards and M&E.

**Requirements for Training and Capacity Building**

Dedicated safeguards staff (e.g. environmental, OHS and social staff) and sufficient experienced consultants will be engaged to support project preparation and implementation as well as ensure that there are sufficient resources to implement the project and manage they key environmental and social risks that have been identified. The project will within two months of project effectiveness support establishment and maintenance of a PCT at Ministerial level and PIT at LGA level, each with qualified staff and resources to support management of ESHS risks and impacts of the Project including at a minimum a full-time One Environmental Specialist and a full-time One social specialist and One Occupational Health and Safety (OHS) Specialist.

Capacity building is mandatory for successful implementation of DMDP 2 projects, all participating parties will be trained, and these include the following:

* Participating LGAs
* Training of Design Consultants
* Contractors and Supervision Engineers/Consultants

The following issues will be covered:

1. World Bank’s ESF;
2. How to use DMDP II Project E&S instruments (ESMF, RPF, SEP and LMP);
3. Subproject and site screening;
4. Resettlement issues;
5. Stakeholder Engagement;
6. Waste management;
7. Grievance handling and the functioning of the project GRMs;
8. GBV and SEA/SH prevention measures
9. Occupational health and safety (OHS);
10. Labour issues, including codes of conduct;
11. Preparation and implementation of Contractor’s ESMPs;
12. Environmental and social management of construction works;
13. Environmental and social supervision of construction works; and
14. Reporting requirements; etc.

**BASELINE CONDITION OF THE PROJECT AREAS**

Dar es Salaam is the largest city and financial hub of [Tanzania](https://en.wikipedia.org/wiki/Tanzania) located at 6°48' S, 39°17' E on a natural harbor on the coast of East Africa, with sandy beaches in some areas with a total area of it has a land area of 565 km². According to the population census of 2022, Tanzania has a population of 59,851,347 people with population growth rate of 3.2. out of this population, 20,618,348 live in urban while 39,232,999 live in rural areas. Dar es Salaam is the metro city of Tanzania and exhibits the largest population about 9% of the national population. According to the census 2022, the city has a population of 5,383,728. The city is one of the fastest growing cities in the World. Dar es Salaam is divided into 5 LGAs namely Kinondoni, Ubungo, Temeke, Kigamboni and Dar es Salaam City council. The DMDP II projects are distributed within the 5 LGAs of Dar es Salaam.

Dar es Salaam experiences tropical climatic conditions, characterized by hot and humid weather throughout the year. It has a [tropical savanna climate](https://en.wikipedia.org/wiki/Tropical_savanna_climate)  i.e. wet and dry climate. Annual rainfall is approximately 1,100 mm with two rainy seasons: the "long rains" in April and May, and the "short rains" in November and December.

The major source of water is the water distribution system owned by Dar es Salaam Water and Sewerage Authority and managed by Dar es Salaam Water and Sanitation Authority (DAWASA). Other sources are boreholes which are managed by institution, water user association (water committees) and private owned boreholes.

**IDENTIFICATION OF POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS**

The overall impact assessment of the DMDP II proposed activities reveals that most of the likely adverse impacts are ranked as High to Low and these can be avoided, prevented, mitigated or compensated by implementing the measures and actions plans to be proposed in this ESMF and later assessment in more detail by implementing ESIA/ESMPs. The project interventions will also generate important beneficial impacts to the beneficiary communities during the various phases of the project that include construction and operation phase.

**PROCEDURES FOR ENVIRONMENTAL AND SOCIAL ASSESSMENT [ESIAs] AND IMPLEMENTATION OF E&S RISK MANAGEMENT INSTRUMENTS**

Since the subprojects for DMDP II have been identified and locations selected, they shall be subjected to Environmental and Social Impact Assessments depending on their categories as stipulated in Environmental Impact Assessment and Audit 2005 (Amendment) Regulations, 2018 to ensure compliance to all respective WB E&S framework (ESF) and Tanzania legislative requirements for development projects as. The following will be done:

* Determination of the Impacts and Risks Analysis of Sub-Projects
* Determination the Environment and Social Assessment Requirements for Sub-projects
* Development of Safeguards Documents

**Determination of the Impacts and Risks Analysis of Sub-Projects**

Table 5-2 shows project risk category and the type of tool to be prepared as per the WB ESF and EIA and Audit Amended Regulations of 2018.

The World Bank ESF (ESS-1) provides an Environmental and Social Risk Classification (ESRC) of projects as ***High, Substantial, Moderate or Low*** Risk and Is subject to regular review including during implementation. The ESRC considers the following aspects associated with the project/s:

* The type, location, sensitivity and scale of the project.
* The nature and magnitude of the potential environmental and social risks and impacts.
* The capacity and commitment of the Borrower to manage such risks and impacts in a manner consistent with the ESSs.
* Other areas of risk that may be relevant to the delivery of environmental and social mitigation measures and outcomes, depending on the specific project and the context in which it is being developed.

Subproject categorization is based on WB risk criteria and the Tanzania regulations.

**Review and Clearance of Safeguards Documents Including Information Disclosure**

The WB ESF requires that DMDP II E&S safeguards’ reports be reviewed and approved by the WB as well as the country’s authorities and made available to project affected groups, local NGOs, and the public at large. Review and approval of ESIA and provision of environmental certificate/permit will be the mandate of the NEMC at national level. At the WB level, review and approval for public disclosure of ESMF, ESIA and other safeguard documents such as the SEP, LMP and RPF will be the mandate of the PO-RALG and conducted in both the WB website and PO-RALG website. Disclosure will be conducted to reach as wide range of stakeholders as possible. PO-RALG will disclose this ESMF and other safeguard documents such LMP, RPF and SEP by:

1. Publication in a government newspaper;
2. On its website;
3. Making copies available at project’s LGAs and TARURA District offices,
4. Making copies available to the local government agencies and other stakeholders.
5. PO-RALG will also authorize the WB to disclose this ESMF and other safeguard documents on the WB website.

As the main implementing agency of the Project, PO-RALG will be responsible for ensuring that all environmental and social risk management instruments are consistent with the ESF. This includes the systematic screening of all operations to make sure they include and adhere to the applicable provisions of the relevant ESS. However, the clearing of some instruments will be also carried out by the World Bank, particularly in the following cases:

* All high-risk projects will be reviewed and cleared by the Bank prior to the NEMC certification then disclosed in both WB and PORALG websites
* All RAPs and LRPs will be reviewed and cleared by the Bank, disclosed in both WB and PORALG websites
* For Substantial risk subprojects, will be reviewed and cleared by the Bank prior to the NEMC certification then disclosed in both WB and PORALG websites.
* For Moderate risk subprojects, 3 documents to be used as templates will be reviewed and cleared by the Bank certified by NEMC and disclosed in both WB and PORALG websites …
* For Low-risk subprojects, the first 3 ESMPs will be reviewed by PORALG and later cleared by the Bank

**Monitoring and Project Supervision**

The PO-RALG/WBCU and LGAs’ PIUs will have dedicated teams for monitoring and supervision of compliance with safeguard requirements at different levels. Monitoring shall focus on two main areas:

1. Compliance monitoring by the LGAs’ PIUs in close collaboration and engagement with the host communities to measure the effectiveness of subproject ESMPs, assess compliance with E&S requirements, evaluate compliance with monitoring indicators, and to verify the measures identified in the ESMP, including any unmitigated EHS risks and impacts and ensuring their inclusion in the clauses for contractors are being implemented; and
2. Ensuring that measures have been taken to include public participation in the decision making process. Such measures include that subproject implementation staff and communities should ensure that mitigation measures as outlined in of subproject E&S requirements including requirements of ESMPs Contractor’s ESMPs are effectively implemented to address identified issues and concerns.

DMDP-2 being a High-Risk Project, will be subjected to Independent Third Party EHS Monitoring by EHS Consultants.

**PUBLIC CONSULTATION AND INFORMATION DISCLOSURE**

**Stakeholder Consultations and Participation**

The ESMF preparation included stakeholders’ consultations in June 2023. Key project stakeholders for DMDP II Project were identified including: Government Ministries, State Agencies / Organizations’ / and Departments, Project offices, non-governmental organization and local communities, both the affected and host communities, including women, the poor and most vulnerable groups.

All Stakeholder consultations and information disclosure for DMDP II will be guided by Project Stakeholder Engagement Plan (SEP) as per ESS10.

**Objective of Consultation**

The overall objective of the consultation process was to solicit concerns, opinions, views, and attitudes of the stakeholders; disseminate project information and to incorporate the views of stakeholders in the project design and operation including E&S mitigation measures, management and monitoring plans.

**Consultation Process**

Stakeholders’ consultations and site visits were conducted to all 5 LGAs under DMDP II project in June 2023. The consultations involved ward councilors, ward executive officers, Mtaa Chairmen and community representatives.

The consultations were conducted through the use of consultative meetings, public meetings, key informant interviews and focus group discussions. In-depth interviews were held with staff member’s/key informants of the government and private institutions, agencies, regional, district levels depending on the type of data required. The interview also, targeted communities residing in the vicinity of the proposed subprojects’ sites.

**GRIEVANCES REDRESS MECHANISM (GRM)**

**Overview**

Grievance redress mechanism (GRM) involves a formal process for receiving, evaluating and redressing program-related grievances from affected communities at the level of project component or activity. Project beneficiaries, project affected people (PAPs) i.e. those who will be and/or are likely to be directly or indirectly affected, positively or negatively, as well as the broader citizens can use the GRM for the purposes of providing complaints about the project. Project affected people include those who will be affected by project induced land acquisition and economic / physical displacement or by any other project related impact. Further process of proposed GRM for the DMDP 2 is elaborated in the Stakeholders Engagement Plan of this Project.

**Procedures for Grievance Management**

* Assigning a responsible person, team or function to organize the resolution of grievances;
* Defined timeframes for acknowledgement of the receipt of complaints and subsequent resolution;
* Practical arrangements for maintaining confidentiality, reviewing and resolving grievances, including resources and organizational arrangements information on the grievance; and
* A provision for an appeal mechanism including provisions for arbitration in the courts

**Responsibility for Implementing Grievance Management Procedures**

The GRM Committees at *Mtaa,* Ward, District as well as regional levels, will be established and adequately capacitated. The GRM will also be extended to the WBCU level and be expanded to handle all types of grievances arising from implementation of all projects and sub-projects at each LGA level under the DMDP II Project including work related grievances.

**Management GBV and SEA/SH Cases in the Workplace for DMDP II**

The Contractors shall be required to include GBV and SEA/SH prevention/mitigation measures in the CESMP and Code of Conducts. The GRM will refer survivors to the services (either formal or informal) most capable to provide care. Awareness raising that will be provided to communities on different mechanisms of the project to respond to SEA and on the way to place complaints into the GRM. The bidding documents for contractors will require the development of a Code of Ethical Conduct (CEC), which the PIU will need to approve, regular training for workers on the contents of the CEC and, depending on the level of risk, for a GBV Action Plan with a clear Response and Accountability Framework. Monitoring mechanisms will be put into place to ensure that mitigation and response measures are in place and working accordingly

Specific provisions of the GRM will be prepared for complaints related to Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH) that could be derived from the DMDP II Project to ensure the survivor’s confidentiality and rights. To properly address GBV risks, the GRM needs to be in place prior to contractors mobilizing. The GRM should not ask for, or record, information on more than three aspects related to the GBV incident:

* The nature of the complaint (what the complainant says in her/his own words without direct questioning,
* If, to the best of their knowledge, the culprit was associated with the project, and
* If, possible, the age and sex of the survivors.

**BUDGET ESTIMATES FOR ESMF IMPLEMENTATION**

ESMF implementation will require funding (945,000USD) to make it successful, there are a number of activities to be done including monitoring and supervision, institutional development activities, training programs, technical assistance, allowances for the review and approval of subproject management plans and annual reviews. Training will include LGAs Designated Staff, Design Consultants, Contractors and Supervising Engineers and Communities within the project area.

Table of Contents

[DAR ES SALAAM METROPOLITAN DEVELOPMENT PROJECT – PHASE 2 1](file:///C:\Users\User\Desktop\DMDP2\ESMF-DMDP%20II%20-Clean.docx#_Toc145688800)

[ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF) 1](file:///C:\Users\User\Desktop\DMDP2\ESMF-DMDP%20II%20-Clean.docx#_Toc145688801)

[1. INTRODUCTION 1](#_Toc145688802)

[1.1 Background 1](#_Toc145688803)

[1.2 Project Development Objective 1](#_Toc145688804)

[1.3 Project Components 1](#_Toc145688805)

[1.3.1 Component 1: Climate-Smart Priority Infrastructure (US$256million) 2](#_Toc145688806)

[1.3.2 Component 2: Metropolitan Solid Waste Management Infrastructure and Services (US$50million) 5](#_Toc145688807)

[1.3.3 Component 3: Strengthening Urban Institutions (US$28.3 million) 5](#_Toc145688808)

[1.3.4 Component 4: Project Management (US$15.7 million) 6](#_Toc145688809)

[1.4 Rationale for the ESMF 6](#_Toc145688810)

[1.5 Purpose of the ESMF 6](#_Toc145688811)

[1.6 Objectives of the ESMF 7](#_Toc145688812)

[1.7 Approach and Methodology for Development of the ESMF 7](#_Toc145688813)

[1.7.1 Overall Approach 7](#_Toc145688814)

[1.8 Environmental and Social Safeguards Documents to Compliment the ESMF 8](#_Toc145688815)

[1.9 Scope of the ESMF 9](#_Toc145688816)

[1.10 Scope of the ESMF 9](#_Toc145688817)

[1.11 Contents of the ESMF 10](#_Toc145688818)

[2. POLICY, LEGAL AND REGULATORY FRAMEWORK 11](#_Toc145688819)

[2.1 Overview 11](#_Toc145688820)

[2.2 World Bank’s Environmental and Social Standards (ESSs) 11](#_Toc145688821)

[2.3 National Policies and Legal Framework Relevant to the DMDP II Project 18](#_Toc145688822)

[2.3.1 Policy Framework 18](#_Toc145688823)

[2.3.2 Legal Framework 20](#_Toc145688824)

[2.3.3 Other Environmental Laws 23](#_Toc145688825)

[2.3.4 Regulations 23](#_Toc145688826)

[2.3.5 Relevant International Conventions and Treaties. 25](#_Toc145688827)

[2.4 Gap Analysis between the National Regulations and the ESF 25](#_Toc145688829)

[2.5 Institutional Framework for Environmental Management 2](#_Toc145688850)

[2.5.1 Project Implementation Arrangements 3](#_Toc145688851)

[2.5.2 Assessment of the Institutional Capacities to Manage Environmental and Social Risks and Impacts 3](#_Toc145688852)

[2.5.3 Requirements for Training and Capacity Building 4](#_Toc145688853)

[3. ENVIRONMENTAL AND SOCIAL BASELINE CONDITION OF THE PROJECT AREAS 6](#_Toc145688854)

[3.1 Introduction to Dar es Salaam 6](#_Toc145688855)

[3.1.1 Climate 6](#_Toc145688856)

[3.1.2 Dar es Salaam Urban Open Spaces 6](#_Toc145688857)

[3.2 Temeke Municipality 6](#_Toc145688858)

[3.2.1 Environmental Baseline 6](#_Toc145688859)

[3.2.2 Socioeconomic Environment 7](#_Toc145688860)

[3.3 Kigamboni Municipality 9](#_Toc145688861)

[3.3.1 Environmental Baseline 9](#_Toc145688862)

[3.3.2 Socioeconomic Baseline 10](#_Toc145688863)

[3.2 Kinondoni Municipality 12](#_Toc145688864)

[3.2.1 Environmental Baseline 12](#_Toc145688865)

[3.2.2 Socioeconomic Environment 13](#_Toc145688866)

[3.3 Ubungo Municipality 14](#_Toc145688867)

[3.3.1 Environmental Baseline 14](#_Toc145688868)

[3.3.2 Socioeconomic Baseline 15](#_Toc145688869)

[3.4 Dar es Salaam City Council 16](#_Toc145688870)

[3.4.1 Environmental Baseline 17](#_Toc145688871)

[3.4.2 Socioeconomic Baseline 17](#_Toc145688872)

[4. IDENTIFICATION OF POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS 19](#_Toc145688873)

[4.1 Overview 19](#_Toc145688874)

[4.2 Key Sub-projects Potential Environmental and Social Impacts 19](#_Toc145688875)

[4.3 Potential Environmental Impacts during Project Phases 47](#_Toc145688876)

[4.3.1 Project Siting/Planning Phase 48](#_Toc145688877)

[4.3.2 Project Construction Phase 48](#_Toc145688878)

[4.3.3 Project Operation Phase 52](#_Toc145688879)

[4.4 Potential Social Impacts during Project Phases 57](#_Toc145688880)

[4.4.1 Project Siting/Planning Phase 57](#_Toc145688881)

[4.4.2 Project Construction Phase 58](#_Toc145688882)

[4.4.3 Project Operation Phase 63](#_Toc145688883)

[5 PROCEDURES FOR ENVIRONMENTAL AND SOCIAL ASSESSMENT OF SUB-PROJECTS 68](#_Toc145688884)

[5.1 Overview 68](#_Toc145688885)

[5.2 Screening Criteria and Screening Checklist by the Executing Agency for Sub-Projects 68](#_Toc145688886)

[5.3 Consultation during the Screening Process 69](#_Toc145688887)

[5.4 Determination of the Impacts and Risks Analysis of Sub-Projects 69](#_Toc145688888)

[5.5 Determination the Environment and Social Assessment Requirements for Sub-projects 72](#_Toc145688889)

[5.6 Development of E&S Risk Management Documents 73](#_Toc145688890)

[5.6.1 Environmental and Social Impact assessment and Environmental and Social Management Plans 73](#_Toc145688891)

[5.6.2 Resettlement Action Plans (RAP), Temporary Relocation Plans (TRPs) and Due Diligence Reports (DDRs) 73](#_Toc145688892)

[5.6.3 Contractors’ Environmental and Social Management Plans (C-ESMP) 73](#_Toc145688893)

[5.6.4 Undertaking Environmental and Social Audit 73](#_Toc145688894)

[5.6.5 E&S Specifications for Contractors 74](#_Toc145688895)

[5.6.6 Review and Clearance of Safeguards Documents Including Information Disclosure 74](#_Toc145688896)

[5.6.7 Monitoring and Project Supervision 77](#_Toc145688897)

[5.6.8 Reporting Arrangements 77](#_Toc145688898)

[6 INSTITUTIONAL ARRANGEMENTS AND CAPACITY BUILDING 79](#_Toc145688899)

[6.1 Project Implementation Arrangements 79](#_Toc145688900)

[6.2 Assessment of The Institutional Capacities to Manage Environmental and Social Risks and Impacts 79](#_Toc145688901)

[6.3 Requirements for Training and Capacity Building 79](#_Toc145688902)

[7 PUBLIC CONSULTATION AND INFORMATION DISCLOSURE 81](#_Toc145688903)

[7.1 Stakeholder Consultations and Participation 81](#_Toc145688904)

[7.2 Objective of Consultation 81](#_Toc145688905)

[7.3 Consultation Process 81](#_Toc145688906)

[7.3.1 Summary of Stakeholder’s Views 82](#_Toc145688907)

[7.4 Recommendations on Stakeholders’ Views 83](#_Toc145688908)

[7.5 ESMF Disclosure 83](#_Toc145688909)

[8 GRIEVANCE REDRESS MECHANISM 84](#_Toc145688910)

[8.1 Overview 84](#_Toc145688911)

[8.2 Procedures for Grievance Management 84](#_Toc145688912)

[8.3 Records Keeping 84](#_Toc145688913)

[8.4 Responsibility for Implementing Grievance Management Procedures 84](#_Toc145688914)

[8.5 Management GBV and SEA Cases in the Workplace for DMDP II 85](#_Toc145688915)

[9 BUDGET ESTIMATES FOR ESMF IMPLEMENTATION 87](#_Toc145688916)

[9.1 Overview 87](#_Toc145688917)

[9.2 Training of LGAs Designated Staff 87](#_Toc145688918)

[9.3 Training of Design Consultants 87](#_Toc145688919)

[9.4 Training of Contractors and Supervising Engineers 87](#_Toc145688920)

[9.5 Community Involvement 87](#_Toc145688921)

[9.6 Cost for ESMF Implementation 88](#_Toc145688922)

[REFERENCES AND BIBLIOGRAPHY 89](#_Toc145688923)

[APPENDICES 90](#_Toc145688924)

APPENDIX I - Screening Form For Potential Environment And Social Issues

APPENDIX II - Generic Environmental And Social Management Plan (ESMP) For Different Types Of Project Activities Under The Project

APPENDIX III - Sample ESIA Outline For Sub-PROJECTS.

APPENDIX IV – Procedures For Carrying Out ESIA In Tanzania

APPENDIX V - Sample Of Other Environmental And Social Documents Required During Project Implementation (TMP, ESMP Etc.)

APPENDIX VI – CONTENTS OF CESMP DMDP II Project

APPENDIX VII – INDICATIVE Tor FOR E&S SUPERVISING CONSULTANT/ENGINEER

APPENDIX VIII: Indicative Outline Of ESA Report

Appendix IX: E&S SPECIFICATIONS FOR CONTRACTORS

Appendix X: GUIDELINES FOR PREPARATION OF TMP FOR CONSTRUCTION PROJECTS

LIST OF ANCRONYMS

BRT: Bus Rapid Transit

DLAs: Dar es Salaam Local Authorities

DMDP: Dar es Salaam Metropolitan Project

E&S: Environmental and Social

EHSGs: Environmental, Health and Safety General Guidelines

EIA: Environmental Impact Assessment

ESCP: Environmental and Social Commitment Plan

ESIA: Environmental and Social Impact Assessment

ESMF: Environmental and Social Management Framework

ESMPs: Environmental and Social Management Plans

ESSs: Environmental and Social Standards

GBV: Gender Based Violence

GoT: Government of Tanzania

GRM: Grievance Redress Mechanism

NEP: National Environmental Policy

OSHA: Occupational Safety and Health Authority

PDO: Project Development Objective

PIU: Project Implementation Unit

PORALG: President’s Office, Regional Administration and Local Government1

RAPs: Resettlement Action Plans

RPF: Resettlement Policy Framework7

SEP: Stakeholder Engagement Plan8

SOP: Series of Projects1

SUDs: Sustainable Urban Drainage Systems3

TARURA: Tanzania Rural and Urban Roads Agency4

TMPs: Traffic Management Plans5

WB: World Bank

LIST OF FIGURES

[Figure 1‑1: DMDP II Project’s Locations/LGAs in Dar es Salaam Region -Tanzania 2](#_Toc140184681)

[Figure 1‑1: General Approach and Methodology for ESMF Development 7](#_Toc140184682)

LIST OF TABLES

[Table 2‑1: Instruments Required to Meet the World Bank’s ESSs for the DMDP II 10](#_Toc140184685)

[Table 2‑2: Other Relevant World Bank Guidelines 14](#_Toc140184686)

[Table 2‑3: Other Key Laws Relating to Environmental Management in Tanzania 19](#_Toc140184687)

[Table 2‑4: Comparison between the World Bank’s ESS5 and Tanzanian Legislations 22](#_Toc140184688)

[Table 4‑1: Equipment and Tools Used to Deliver Solid Waste Collection 28](#_Toc140184689)

[Table 4‑2: Types of Waste Generated in Kigamboni Municipality 30](#_Toc140184690)

[Table 4‑3: Solid Waste Composition and Characteristics 30](#_Toc140184691)

[Table 4‑4: Challenges Facing Kigamboni Municipal to Deliver Proper Solid Waste Services 31](#_Toc140184692)

[Table 4‑5: Profile of Solid Waste Service Providers at KMC 32](#_Toc140184693)

[Table 4‑6: Names of SW Contractors and Wards Serviced 33](#_Toc140184694)

[Table 4‑7: Requirements of SW Trucks and Equipment 33](#_Toc140184695)

[Table 4‑8: Challenges Facing Kinondoni Municipal to Deliver Proper Solid Waste Services 33](#_Toc140184696)

[Table 4‑9: Solid Waste Generators 34](#_Toc140184697)

[Table 4‑10: Waste Composition and Trend of Changes in the Composition 35](#_Toc140184698)

[Table 5‑1: Identified Impacts of the DMDP II Components and Subcomponents and Proposed Activities 44](#_Toc140184699)

[Table 6‑1: Projects’ Categories and Instrument as per Tanzanian Environmental Laws and Regulations 58](#_Toc140184700)

[Table 6‑2: Subproject Categorization based on the WB Risk Criteria, the Tanzania Regulations 59](#_Toc140184701)

[Table 6‑3: Subprojects E & S Instruments 60](#_Toc140184702)

[Table 6‑4: Summary of Procedures for Environment and Social Assessment (ESA) of Sub-projects. 62](#_Toc140184703)

[Table 7‑1: Number of Stakeholder’s consulted under DMDP II 69](#_Toc140184704)

[Table 10‑1: Cost Breakdown for ESMF Implementation 75](#_Toc140184705)

# INTRODUCTION

## Background

The Dar es Salaam Metropolitan Project (DMDP) was designed as a Series of Projects (SOP) to support the long-term development of the Dar es Salaam Metropolitan (Dar Metro) region. The recently closed DMDP was the first in a series aimed at addressing urgent infrastructure demands for basic services, urban mobility, and flooding in the Dar Metro region, as well as the need for support to develop the institutional structure and capacity to manage the future megacity of Dar es Salaam through infrastructure development, including rehabilitation/construction of roads, flood control & storm water drainage, upgrading of infrastructure for low-income communities in unplanned settlements, and enhancement of other key urban services. Even after implementation of these projects, a significant infrastructure backlog remains and Dar es Salaam’s ability to meet the demands of a livable and economically productive metropolitan area still constrained.

The second phase of the DMDP (DMDP II) entails at : (i) increasing coverage of project activities to include the newly established Ubungo and Kigamboni Municipalities of Dar es Salaam; (ii) implementing infrastructure sub-projects that were planned to be executed under DMDP Phase 1 but could not be accommodated due to financing limitation; (iii) make further interventions to address the still unaccomplished high demand for infrastructure development by extending coverage into remaining areas of Kinondoni and Temeke Municipalities, and the Dar es Salaam City (formerly Ilala Municipality) including roads, flood control & storm water drainage, infrastructure facilities in unplanned settlements and other key urban services; and (iv) establish city-wide solid waste management systems and supportive infrastructure & landfill facilities. Therefore, the main objective of this second phase of DMDP is to improve urban services and institutional capacity and strengthen climate resilient development in the Dar es Salaam Metropolitan Area. The focal Ministry for the Project Will be President’s Office, Regional Administration and Local Government (PORALG) through the 5 Dar es Salaam Local Authorities (DLAs) (i.e., the Municipal Councils (MCs) of Kinondoni, Ubungo, Temeke and Kigamboni, and the Dar es Salaam City Council (DCC)).

In this context, The ESMF is designed to help PORALG, and LGAs manage the risks and impacts of the project, and improve their environmental and social performance, through a risk and outcomes-based approach. It will also ensure that, the project implementation comply with the national environmental laws and the World Bank’s Environmental and Social Standards, this “Environmental and Social Management Framework (ESMF)” document is prepared during the project preparation phase to provide a framework approach to impact mitigation.

## Project Development Objective

The second phase of the DMDP entails at : (i) increasing coverage of project activities to include the newly established Ubungo and Kigamboni Municipalities of Dar es Salaam; (ii) implementing infrastructure sub-projects that were planned to be executed under DMDP Phase 1 but could not be accommodated due to financing limitation; (iii) make further interventions to address the still unaccomplished high demand for infrastructure development by extending coverage into remaining areas of Kinondoni and Temeke Municipalities, and the Dar es Salaam City (formerly Ilala Municipality) including roads, flood control & storm water drainage, infrastructure facilities in unplanned settlements and other key urban services; and (iv) establish city-wide solid waste management systems and supportive infrastructure & landfill facilities.

## Project Components

The Project Development Objective (PDO) of the second phase of the DMDP (DMDP Phase II) is to improve urban services and institutional capacity and strengthen climate resilient development in the Dar es Salaam Metropolitan Area.

DMDP Phase II will include the following project components include:

* Component 1: Climate-Smart Priority Infrastructure
* Component 2: Metropolitan Solid Waste Management Infrastructure and Services
* Component 3: Strengthening Urban Institutions
* Component 4: Project Management

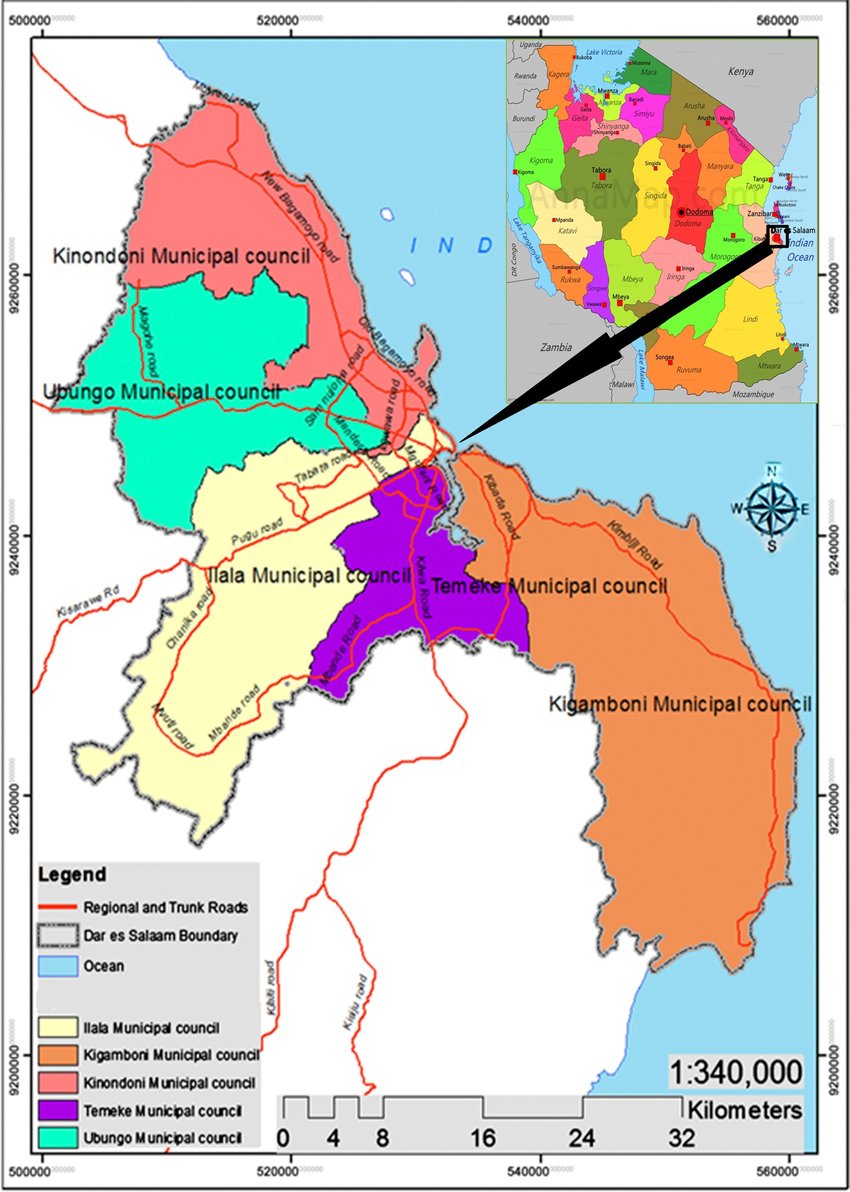


Figure 1‑1: DMDP II Project’s Locations/LGAs in Dar es Salaam Region -Tanzania

Source : <https://www.researchgate.net/publication/349508252/figure/fig1/AS:998037488951296>

### Component 1: Climate-Smart Priority Infrastructure (US$256million)

Component 1 is a program of priority investments to address urban infrastructure gaps in a way that responds to increased hazards and risks from climate change and urbanization and helps reduce greenhouse gas emissions. The focus is on improving urban mobility and adapting to climate change by financing: the construction of feeder and local roads (sub-component 1.1), storm-water drainage infrastructure (sub-component 1.2), parks and open spaces (sub-component 1.3), and area based urban development sub-component 1.4). Through a combination of conventional engineering technologies (grey infrastructure) and nature-based solutions (green and blue infrastructure), the four sub-components will work together to reduce travel times within the city, reduce urban flood and water scarcity risks, and mitigate the urban heat island effect (UHI). Urban greening will also contribute to carbon sequestration, while the transport infrastructure will help avoid greenhouse gas emissions by enhancing connectivity between the BRT corridors and non-motorized transport.

#### Sub-Component 1.1: Resilient Transport Infrastructure

This sub-component will finance transport infrastructure[[3]](#footnote-3) to enhance access to public transport including feeder routes to the BRT and extension or improvement of daladala[[4]](#footnote-4) routes or access to them; improve connectivity of communities to basic services and infrastructure (i.e., bus stops, markets, schools and community centers); and reduce congestion and encourage economic activity in key areas. The road investments will involve approximately 200km of existing roads, upgrading them to tarmac and gravel roads and repairing existing damaged tarmac roads.

The designs of the transport infrastructure will support low carbon development and introduce more systematically climate change risks in the design. Pedestrian and cyclist infrastructure, road safety design features for vulnerable groups, space for vendors, and street tree planting will be incorporated into the design of the available right-of-way through a “Complete Streets”[[5]](#footnote-5) people-centered approach. Roadside drainage will utilize a mix of grey and green infrastructure, including landscaping and other measures to manage flooding, erosion and promote cooling while increasing rainwater infiltration and reducing runoff. Climate-informed flood risk modelling will inform the road and bridge design, and drainage and culverts will be wide enough to accommodate projections for increased intensity of rainfall events.

Because of their importance and need for and strategic approach, the targeted feeder roads for the BRT will benefit from more detailed studies to identify a people centered approach and the central business districts will undergo a traffic circulation, modeling, parking and activity mobility program considering car free zones. Complementary urban infrastructure and urban planning in these areas would be financed through sub-component 1.4.

#### Sub-Component 1.2: Resilient and Green Drainage Systems

This sub-component will build resilience to annual flooding. Incorporating a combination of traditional stand-alone “grey” infrastructure with sustainable urban drainage elements[[6]](#footnote-6), the approach is to expand capacity of the drainage network while encouraging water retention, storage and infiltration to attenuate flood peaks, increase groundwater recharge water treatment and reduce erosion. The designs will include landscaping and trees to help sequester carbon, reduce urban heat, and improve public space. The sub-component will rely on drainage master planning done under DMDP[[7]](#footnote-7) to identify city-wide priorities, and recent flood modelling to prioritize investments in key affected areas of the city for area or site-based drainage planning and investments. It will also finance sustainable urban drainage features including rainwater harvesting in public buildings and public spaces. This will provide opportunities for broader area-based benefits, which will be financed under subcomponent 1.4.

The sub-component will finance strategic drainage investments including: (i) construction of approximately 150 km of stand-alone drains using a combination of grey and green drainage infrastructure[[8]](#footnote-8); (ii) water detention, retention, and infiltration basins[[9]](#footnote-9); (v) sediment traps[[10]](#footnote-10); (iii) sustainable urban drainage system features (soakaways, tree planting, swales, berms, green roofs, filter drains, riprap, and other erosion control structures).

#### Sub-Component 1.3: Parks and Open Space

This sub-component will support the development of parks and greenspace and the protection of flood plains and riparian areas to reduce urban heat, provide recreational areas, drainage and flood protection. These areas will be planned and designed to reduce these climate risks and also provide opportunities for broader area-based benefits (to be identified and developed under subcomponent 1.4) including urban upgrading to enhance economic activity and services in the area, and linkage to non-motorized transport routes. It is estimated to cover about 100 ha of open spaces and flood plains.

The subcomponent will finance *inter-alia*: (i) the design and construction of parks and open spaces including areas surrounding riparian or flood plains, including trees, landscaping and greening; recreational features; utilities, restrooms and buildings; paths for cycling and walking; small service roads; and sustainable urban drainage system features; (v) climate risk informed urban plans, cadastre and demarcation and support to implementation of development controls to protect flood plains, riparian areas, parks and green open spaces; and (iv) design of investments and environmental and social studies.

#### Sub-Component 1.4 Area Based Urban Development.

The subcomponent will finance the planning, design and infrastructure to support integrated development in targeted geographic locations in the city with important economic, commercial or residential activity, transport and other services. The planning and design will consider compact urban development, access to services, improved transit connectivity and circulation, reduced congestion, improved livability, gender sensitive design including safety and providing an environment to enhance businesses and economic activity. Several areas will be selected for this demonstration. The areas under consideration are: (i) business districts (e.g., Kariokoo, Upanga and Tandika); (ii) areas around project-financed or existing local socioeconomic facilities (e.g. markets, health clinics, childcare centers, and government services); (iii) areas surrounding areas parks, public spaces and rivers; and (iii) areas around key transit nodes such as BRT stations and bus stands or key roads such as feeder routes.

The subcomponent will finance *inter-alia*: (i) markets; health clinics; childcare centers; buildings for public services and facilities; slaughterhouses, and small scale craft or light industrial areas (ii) urban upgrading features including roads and pathways; signage; greening and landscaping; lighting; and amenities (e.g., areas for traders and concessions, bathrooms, public furniture, public space improvement including car free zones) and (iii) planning studies, detailed planning schemes, detailed design, cadastre and demarcation and environmental and social studies in support of these plans.

### Component 2: Metropolitan Solid Waste Management Infrastructure and Services (US$50million)

Component 2 will develop an integrated solid waste management system for Dar es Salaam, providing infrastructure and services for safe handling, transport and disposal of waste; and sorting and processing of recyclables, composting and other technologies that aim to reduce reliance on landfills and contribute to the reduction of greenhouse gas emissions. It will also strengthen the institutional, regulatory and financing framework and capacity to deliver these services.

It will finance the construction of solid waste facilities that that will provide services shared by the Dar es Salaam Local Government Authorities. An intermunicipal institution would be established under the project that would have responsibility for operating these shared facilities[[11]](#footnote-11). These include landfills designed to capture landfill gas in order to reduce methane emissions; centralized facilities for waste sorting and treatment; and a waste transport system including transfer stations that consolidate the waste and subsequently transport it the facilities, reducing transport costs and GHG emissions. The locations, number and capacity of facilities and types of treatment technologies will be determined based on a technical assessment using transport modelling, technology assessments, site assessments with the aim at identifying a cost-effective, environmentally and socially acceptable system of transfer stations, and transport system and disposal and sorting and treatment facilities that can serve Dar es Salaam into the future[[12]](#footnote-12). Closure of dumpsites with landfill gas recovery systems will include a livelihoods program for those informal waste pickers working on the dumpsites.[[13]](#footnote-13) The new institutional setup will benefit from results-based financing to build capacity while assisting in the transition to operation of the new infrastructure.

This component will finance*, inter alia*: (i) construction of solid waste landfills designed for landfill gas capture; transfer stations and related ancillary works (access roads, facilities, establishment of buffer zones), and equipment; (ii) centralized and community based organic and recyclable waste sorting and treatment facilities and programs; (ii) closure of dumpsites with feasible options for landfill gas collection and energy generation; (iii) equipment and facilities to support solid waste collection and cleaning services; (iii) results based financing for solid waste service delivery; (iv) institutional strengthening and legal reform to support the development of an intermunicipal solid waste management organization for Dar es Salaam, and to enhance Dar es Salaam Local Government Authorities ability to deliver services; and (v) support to informal waste sector integration and alternative livelihoods for male and female waste-pickers; and (vi) design of investments and environmental and social studies.

### Component 3: Strengthening Urban Institutions (US$28.3 million)

This component will be implemented by PORALG and will focus on strengthening new and existing institutions and building capacity to achieve improvements in urban and emergency planning, services, and infrastructure, enhancing the sustainability of investments made through Component 1 and 2 and mainstreaming climate friendly urban planning, infrastructure, and services . It will include, inter alia: (i) Strengthening of service delivery and sustainability for municipal and city-wide services targeted under components 1 and 2. It will review and reform human resources, organization, protocols and procedures, IT systems; revenue and billing, asset management and maintenance arrangements; (ii) Strategic Service and Infrastructure Planning and Standards would be undertaken, financing the updating of existing infrastructure and service plans (drainage, roads, green spaces, markets), improving mechanisms of infrastructure coordination and design of new investments that incorporate climate change and related innovations proposed under component 1 and 2. It will also finance the updating or establishment of infrastructure and design standards to incorporate these elements including updating by-laws, guidelines and other legal instruments; (iii) Strengthening urban planning through preparation of urban plans (land use plans and surveys, hazard informed planning); improving organization, by-laws and regulations, procedures and processes and IT tools for urban development controls. It would also finance strengthening of the city-wide master planning process; (iv) Emergency Response Planning would be strengthened through support of the operation of regional governments emergency response team and community level emergency plans.

### Component 4: Project Management (US$15.7 million)

This component will finance the direct costs of management and operation of the project to ensure smooth delivery and compliance with World Bank policy and guidelines. It will provide support to the President’s Office – Regional Administration and Local Government (PORALG), DLAs, and the Dar es Salaam City Council Project Implementation Unit (PIU) for continual project supervision, environmental and social monitoring, fiduciary management and auditing, office operating costs. Given the large number of stakeholders and criticality of stakeholder engagement in both planning and implementation of the project activities, this component will also finance public communications activities, stakeholder coordination, implementation completion report and preparation of additional investments.

## Rationale for the ESMF

An Environmental and Social Management Framework (ESMF) is prepared at this stage of project preparation as an instrument required to guide E&S screening, assessment and management of the likely environmental and social risks and impacts associated with the DMDP II Project during the implementation phase. The rationale of using a framework is that specific locations and detailed information about the subprojects can only be known during implementation. The ESMF has been prepared in a consultative manner to meet the Government of the United Republic of Tanzania and the World Bank’s Environmental and Social standard requirements and the approved version will be disclosed before project appraisal process by both Government (through the Implementing Agencies) and the World Bank external website. The PORALG and the 5 Dar es Salaam LGA’s, TARURA and the various other service providers will be responsible for implementing the provisions and recommendations outlined in the ESMF after being reviewed and approved by the World Bank.

This ESMF has been prepared in compliance with the ESF established by the World Bank (WB) as well as the laws, legislation, regulations, and local rules governing Environment Management by the Government of Tanzania. These procedures and regulations altogether require the funding of development plans and programs to be subject to prior assessment and the mitigation of potential environmental and social effects.

## Purpose of the ESMF

The purpose of the ESMF is to serve as guidance for ensuring that the sub-projects – once defined - will be assessed on potential environmental and social impacts and risks and appropriately managed, in line with the requirements of the World Bank and Tanzania regulations. It outlines the environmental and social management procedures that the implementing Agencies, [President’s Office – Regional Administration and Local Government (PORALG), and the 5 LGAs of Dar Es Salaam Region ( Kinondoni Municiple Council, Temeke Municipal Council, Ubungo Municipal Council, Kigamboni Municipal Council and the Dar es Salaam City Council Project Implementation Unit (PIU)]: will apply to DMDP II to ensure that, they comply with both the environmental and social regulations of Tanzania and applicable World Bank’s Environmental and Social Standards. The project executing partners ie. Dar es Salaam Local Government Authorities (DLA’s) and the Dar es Salaam City Council Project Implementation Unit (PIU) will follow this ESMF to ensure environmental and social risks of sub-projects are identified and appropriately assessed, and management measures are in place prior to the implementation of the relevant project activities. The ESMF will be publicly disclosed via electronic links on the website of the World Bank, PORALG and DLA’s.

## Objectives of the ESMF

As set in the terms of references for the assignment, the ESMF is prepared to:

* Set out responsibilities for assessing, managing, and monitoring environmental and social risks and impacts associated with each component of the project to achieve environmental and social outcomes consistent with the Environmental and Social Standards (ESSs) and those of the Tanzania Government.
* Help PORALG, and LGAs manage the risks and impacts of the project, and improve their environmental and social performance, through a risk and outcomes-based approach. The desired outcomes for the project are described in the objectives of each ESS, followed by specific requirements to help achieve these objectives through means that are appropriate to the nature and scale of the project and proportionate to the level of environmental and social risks and impacts.
* Assist the project implementers to ensure that the sub-projects are environmentally and socially sound and sustainable and that the environmental and social assessment will be proportionate to the risks and impacts of the project.
* Inform the design of the project and be used to identify mitigation measures and actions to improve decision making and manage environmental and social risks and impacts of the project throughout the project life cycle in a systematic manner, proportionate to the nature and scale of the project and the potential risks and impacts. and,
* Ensure that all relevant National and World Bank Environmental and Social requirements are adhered to address the risks and impacts of the project.

Specific ESMF objectives are:

1. To establish clear procedures and methodologies for screening subprojects, undertaking required level of environmental and social assessment.
2. To guide on the preparation of appropriate subproject safeguard instruments (ESIA, ESMPs, TMPs, GHM etc) review, approval, and implementation of subprojects to be financed under the Project.
3. Describe the process for preparation of various relevant environmental and social safeguard documents that includes public participation.
4. Provide procedures for filing grievances and resolving disputes associated with various project activities/phases.
5. Identify potential risks and impacts and potential mitigation and monitoring.
6. To specify appropriate roles and responsibilities, and outline the necessary reporting procedures, for managing and monitoring environmental and social concerns related to subprojects.
7. To determine the training, capacity building and technical assistance needed to successfully implement the provisions of the ESMF.
8. To establish the budget required to implement the ESMF requirements/safeguards instruments and undertake the required capacity building.

## Approach and Methodology for Development of the ESMF

### Overall Approach

The approach used to develop this framework document involved the following: (1) Review of relevant or related project documents (2) identification of impacts, mitigation measures and monitoring procedures; (3) provision of guidance for sub-projects on how to overcome impacts; and (4) high level identification of relevant stakeholders for the preparation of ESMF. General approach and methodology as well as outputs is as presented in the figure 1-1 below with the left side indicating process and the right side indicating the desirable output.

Figure 1‑1: General Approach and Methodology for ESMF Development

## Environmental and Social Safeguards Documents to Compliment the ESMF

This ESMF document will be complimented/ used together with other environmental and social safeguard instruments for the DMDP II project which include the Resettlement Policy Framework ( RPF), Labour Management Procedure (LMP), and Stakeholder Engagement Plan (SEP) under the guidance of the Environmental and Social Commitment Plan (ESCP) which are stand-alone documents dealing with specific E&S issues. The ESMF will be used to guide the preparation of the Sub-projects/Contractor’s documents such as ESIAs, ESMPs and TMPs, GHM etc.

## Scope of the ESMF

This ESMF identifies the potential impacts and risks and associated mitigation and monitoring measures of the proposed activities under the DMDP II project.  The ESMF outlines the approach to screening subprojects; and terms of references for preparation of ESIAs with generic-indicate EHS mitigation measures for subprojects and other investments including those related to Solid waste management. The ESMF includes a practical set of operational guidelines and procedures that will be used by the PIT to guide future ESIA and ESMP preparation.

This ESMF is specifically designed to guide the preparation and implementation phase of the proposed project activities and investments. As some of subprojects are not known at this stage, this ESMF is a mother document that will guide will guide the ESHS assessment of subprojects and activities and preparing of other Environmental and Social Safeguard documents for the sub-projects. These include ESIAs, ESMPs, RAPs and Traffic Management etc. This document draws from the WB Environmental and Social Framework (ESF) and the National Standards and Guidelines on Environmental, Social and Resettlement Management. Specifically, the ESMF contains subproject screening guidelines, impacts identification and evaluation. It also provides generic guidance on mitigation implementation, supervision, monitoring and consultation processes. Furthermore, it describes the grievance redress mechanism of the project.

Geographically, this ESMF covers all the Five LGAs of the Dar Es Salaam Region relevant to DMDP Phase II These include.

* The Dar Es Salaam City Council (formerly known as Ilala Municipal Council)
* Kinondoni Municipal Council
* Ubungo Municipal Council
* Temeke Municipal Council and
* Kigamboni Municipal Council

This ESMF therefore establish a process of environmental and social screening which will permit the institutions in charge of the implementation of the Sub-Projects to identify, assess and mitigate the environmental and social impacts of sub project investments. The ESMF also determines the institutional measures to be taken during the program implementation, including those relating to capacity building.

## Scope of the ESMF

This ESMF identifies the potential impacts and mitigation measures of the proposed activities under the DMDP II project.  The ESMF outlines the approach to screening subprojects; and terms of references for preparation of ESIAs with detailed ESMPs for subprojects and other investment including those related to Solid waste management. The ESMF includes a practical set of operational guidelines and procedures that will be used by the PIT to guide future ESIA and ESMP preparation.

This ESMF is specifically designed to guide the preparation and implementation phase of the proposed project activities and investments. As some of subprojects are not known at this stage, this ESMF is a mother document that will guide will guide in preparing of other Environmental and Social Safeguard documents for the sub-projects. These include ESIAs, ESMPs, RAPs and Traffic Management etc. This document draws from the WB Environmental and Social Framework (ESF) and the National Standards and Guidelines on Environmental, Social and Resettlement Management. Specifically, the ESMF contains subproject screening guidelines, impacts identification and evaluation. It also stipulates guidelines and best practices for mitigation implementation, supervision, monitoring and consultation processes. Furthermore, it describes the grievance redress mechanism of the project.

Geographically, this ESMF covers all the Five LGAs of the Dar Es Salaam Region relevant to DMDP Phase II These include. The Dar Es Salaam City Council (formerly Ilala Municipal Council), Kinondoni, Ubungo, Temeke and Kigamboni Municipal Councils.

This ESMF therefore establish a process of environmental and social screening which will permit the institutions in charge of the implementation of the Sub-Projects to identify, assess and mitigate the environmental and social impacts of sub project investments. The ESMF also determines the institutional measures to be taken during the program implementation, including those relating to capacity building.

## Contents of the ESMF

Table of Contents for this ESMF is in line with the World Bank’s Draft Guidance for Preparation and Implementation of ESMF. Accordingly, the outline of this ESMF is as follows:

* Section 1: Introduction
* Section 2: Policy Legal and Regulatory framework:
* Section 3: Project Description
* Section 4: Environmental and Social Baseline
* Section 5: Identification of Potential Environmental and Social Impacts
* Section 6: Procedures for Environmental and Social Assessment [ESIAs] and Implementation of Safeguard Instruments
* Section 7: Public Consultation and Information Disclosure
* Section 8: Grievance Redress Mechanism
* Section 9: Project Institutional Arrangements, Responsibility and Capacity Building
* Section 10: Budget Estimates for ESMF Implementation
* Appendices

1. Screening Form for Potential Environment and Social Issues
2. Generic Environmental and Social Management Plan (ESMP) for different types of project activities under the Project
3. Sample ESIA Outline for Sub-Projects.
4. Sample of other Environmental and Social documents required during project implementation (TMP, ESMP etc.)
5. List of stakeholders consulted.
6. Stakeholder issues and concerns.

# POLICY, LEGAL AND REGULATORY FRAMEWORK

## Overview

Due to the nature of the project that involve subprojects of different nature, an array of policies and laws are triggered. Tanzania has a good policy, legal and regulatory framework for management of environment and social issues enshrined in the National Constitution, National Environment Management Policy and National Environmental Management Act, the Land Policy and Land Acts as well as supporting local laws and by-laws. The regulatory framework for the project implementation is wide due to the coverage of the project components. In the next sections, relevant legal and institutional frameworks to guide implementation of DMDP II are explained.

## World Bank’s Environmental and Social Standards (ESSs)

The 10 E&S Standards (ESSs) set out the requirements for Government of Tanzania (GoT) relating to the identification and assessment of E&S risks and impacts associated with projects supported by the Bank through Investment Project Financing.

The standards: (a) support GoT in achieving good international practice relating to E&S sustainability; (b) assist GoT in fulfilling their national and international E&S obligations; (c) enhance non-discrimination, transparency, participation, accountability and governance; and (d) enhance the sustainable development outcomes of projects through ongoing stakeholder engagement.

**Table 2‑1: Instruments Required to Meet the World Bank’s ESSs for the DMDP II**

*This Table Contains a "summary" of the requirements and should refer to the complete ESSs for complete requirements)*

| **ESSs** | **Requirement** | **Relevance** | **Application** |
| --- | --- | --- | --- |
| ESS 1: Assessment and Management of E&S Risks and Impacts | ESS1 requires Borrowers to: identify, evaluate and manage the environment and social risks and impacts of the project; adopt a mitigation hierarchy approach (avoid, minimize, reduce, mitigate, offset); adopt differentiated measures so that adverse impacts do not fall disproportionately on the disadvantaged or vulnerable, and they are not disadvantaged in sharing development benefits and opportunities resulting from the project; utilize national environmental and social institutions, systems, laws, regulations and procedures in the assessment, development and implementation of projects, whenever appropriate; and to promote improved environmental and social performance, in ways which recognize and enhance Borrower capacity. It also requires the Borrower to develop and implement an ESCP, which will set out measures and actions required for the project to achieve compliance with the ESSs over a specified timeframe.ESS1 therefore applies to all projects supported by the World Bank through Investment Project Financing. | Yes | The Program will study Contractor’s impacts which will be managed through this ESMF. Contractor’s ESMPs (C-ESMP) and ESIAs for all subprojects under DMDP II will be prepared. The design of the specific subprojects will be finalized based on the recommendations of the ESIAs.  ESMF will be applied to all sub-projects and technical assistance activities. The PORALG will also develop the ESCP for the project to be agreed with the Bank before project appraisal. |
| ESS 2: Labor and Working Conditions | ESS2 requires Borrowers to: promote safety and health at work; promote the fair treatment, non-discrimination, and equal opportunity of project works, protect project workers, with emphasis on vulnerable workers; prevent the use of all forms of forced labor and child labor; support the principles of freedom of association and collective bargaining of project workers in a manner consistent with national law; and provide project workers with accessible means to raise workplace grievances. | Yes | The implementation of the project will involve both direct workers, contracted workers and primary supply workers. Workers will be engaged during implementation of the project. Health and safety standard for workers and ensure fair working conditions will be promoted.  Further, in line with ESS2 application of the project, ESF instruments such as Labor Management Procedure; Code of Conduct, GRM for workers will be developed in order to address workers issues appropriately. |
| ESS 3: Resource Efficiency and Pollution Prevention and Management | ESS3 requires Borrowers to promote the sustainable use of resources including energy, water and raw materials; avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities, avoid or minimize project-related emissions of short and long-lived climate pollutants, avoid or minimize generation of hazardous and non-hazardous waste; and to minimize and manage the risks and impacts associated with pesticide use. | Yes | This standard is relevant. Construction will involve management of construction waste, air emissions, noise, water supply, wastewater and hazardous materials . Drainage works in particular will need to ensure that contaminated dredged sediments and existing solid waste in existing drains will require safe collection, transport and disposal. During operation, pollutants will be generated from Component 1(e.g. waste from drainge system, parks, and waste and wastewater from heath care faciliites, markets etc.) and Component 2 (e.g. leachate and landfill gas). The borrower will be requested to comply with its national regulations, applicable international standards and/or the Good International Industrial Practice (GIIP) to ensure environmentally sound and safe management and disposal of the dredged sediments such as the WBG Environmental, Health, and Safety Guidelines (i.e. General EHS Guidelines and sector specific guidelines for Waste Management Facilities)  Proposed subprojects will require raw materials during implementation, local licensed sources shall be considered.  Water for construction works may be obtained from local sources, abstraction/use permit shall be acquired from responsible authorities (Water Basins Offices) under the Ministry of Water.  The use of fuel energy during construction period will contribute to air pollution, trainings on pollution prevention measures shall be included in specific ESMPs including training to plant and machineries’ operators.  Solid waste handling sites and transportation may result to environmental pollutions. Also, poor management of solid waste results to loss of resource waste that ends up in the land fill. The DMDP II subproject for solid waste management system shall design a waste management system to recover resource wastes that were going to the land fill. Recommend this section state that ESMF provides method to assess potential ESS3 impacts, risks and requirements and to establish these as part of subproject ES instruments and associated contracts. The ESIAs and ESMPs for the solid waste systems shall develop proper management system to avoid pollution during transportation of wastes and pollution from the dump sites. |
| ESS 4: Community Health and safety | ESS4 requires Borrowers   addresses the health, safety, and security risks and impacts on project-affected communities and the corresponding responsibility of Borrowers to avoid or minimize such risks and impacts, with particular attention to people who, because of their particular circumstances, may be vulnerable | Yes | The proposed DMDP II projects will likely cause risks on health, safety, and security to the community and therefore the ESS4 is applicable. There are also risks associated with SEA/SH, which will be managed with the provisions of a SEA/SH plan to be developed. ESMF provides method to assess potential Community Health and Safety impacts, risks and requirements and to establish these as part of subproject ES instruments and associated contracts. |
| ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement | ESS5 requires Borrowers to avoid involuntary resettlement or, when unavoidable, minimize involuntary  resettlement by exploring project design alternatives; to avoid forced eviction; to mitigate unavoidable adverse social and economic impacts from land acquisition or restrictions on land use; to improve living conditions of poor or vulnerable persons who are physically displaced, through provision of adequate housing, access to services and facilities, and security of tenure; to conceive and execute resettlement activities as sustainable development programs, providing sufficient investment resources to enable displaced persons to benefit directly from the project, as the nature of the project may warrant; and to ensure that resettlement activities are planned and implemented with appropriate disclosure of information, meaningful consultation, and the informed participation of those affected. | Yes | Resettlement will be needed during the implementation of DMDP II project. Minor to major land acquisition may occur in localized improvements along some roads (mainly geometric improvements of curves) and major in acquiring land for development of land fill sites and park areas. In such cases the DMDP II RPF and the RAP should be followed. Land acquisition may also be needed on borrow pits, quarry sites and campsites areas. |
| ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources | ESS6 requires Borrowers to protect and conserve biodiversity and habitats; to apply the mitigation hierarchy and the precautionary approach in the design and implementation of projects that could have an impact on biodiversity; to promote the sustainable management of living natural resources; to support livelihoods of local communities, and inclusive economic development, through the adoption of practices that integrate conservation | No | This standard is relevant. The project is not expected to significantly impact natural habitats. It supports the rehabilitation and upgrading of infrastructure in Dar es Salaam. The bulk of activities will take place in a highly urbanized setting where it is unlikely that natural and /or critical habitats are present. The area of interventions will essentially be in modified habitats.. Subprojects will be screened (as part of ESMF) for potential direct and indirect impacts on natural habitats after subproject details are known, such as potential habitat changes/impacts due to land acquisition and construction of parks and open space; and potential impacts/risks related to fauna at existing dump sites and future waste landfills. Subproject ESIAs and ESMPs to be developed will identify necessary impacts/risks, the associated mitigation and monitoring measures, institutional arrangement and budget to manage these impacts and risks from the project |
| ESS 8: Cultural Heritage | ESS8 covers tangible cultural heritage (may be in urban or rural settings, be above or below land or under water, and includes natural features and landscapes) and intangible cultural heritage (includes practices, representations, expressions, knowledge, skills). It recognizes the need for confidentiality and access. It includes specific provisions on archaeological sites and material, built heritage, natural features with cultural significance, and movable cultural heritage. It includes requirements where use of cultural heritage is for commercial purposes. | Yes | During implementation of some of the DMDP II subprojects, it is highly possible that elements of cultural heritage are found. Some unknown sites with local heritage values (e.g. historical and archaeological sites) may be discovered. There is a potential for chance finds, and therefore will be included in the ESIAs and ESMPs of the specific projects. |
| ESS 10: Stakeholders Engagement and Information Disclosure | ESS10 emphasizes stakeholder engagement throughout the project life cycle and requires a Stakeholder Engagement Plan (SEP). It encourages early identification of stakeholders, both project-affected parties and other interested parties. Under ESS10, engagement must be proportionate to the nature, scale, risks and impacts of the project, and appropriate to stakeholders’ interests. It specifies process and criteria for information disclosure and meaningful consultation, and requires an accessible and inclusive grievance mechanism, proportionate to risks and impacts. ESS10 applies to all projects supported by the Bank through Investment Project Financing. The Borrower will engage with both project- affected and interested stakeholders as an integral part of the project’s environmental and social assessment and project design and implementation, as outlined in ESS1. | Yes | The DMDP II project covers areas that has public interest. The project has developed Stakeholder Engagement Plan (SEP) to ensure the stakeholders are provided with timely, relevant, understandable and accessible information, and consult with them in a culturally appropriate manner, which is free of manipulation, interference, coercion, discrimination and intimidation for the lifespan of the Project. Stakeholder engagement is part of the preparation of this ESMF and is an integral part of the preparation of subproject ESIAs and RAPs |

Table 2‑2: Other Relevant World Bank Guidelines

| **Guideline** | **Application** |
| --- | --- |
| The World Bank Group Environmental, Health and Safety General Guidelines (EHSGs) | General EHS Guidelines are applicable to the DMDP II, as they include workplace safety, noise, air quality, and wastewater quality guidelines.  They also include recommendations that shall be considered during construction activities and subproject operations in vary fields such as wastewater management, hazardous material and waste management, waste management, occupational health and safety, measures to safeguard community health and safety, traffic safety, disease prevention, and specific measures for construction activities.    These guidelines shall guide development of Site-specific ESMPs |
| WB-Good Practice Note on Road Safety | During implementation of road subprojects, the LGAs will identify, evaluate and monitor the potential traffic and road safety risks to workers, affected communities and road users throughout the project life-cycle and, where appropriate, will develop measures and plans to address them.  The LGAs will incorporate technically and financially feasible road safety measures into the subprojects’ designs to prevent and mitigate potential road safety risks to road users and affected communities”.  The PIU will conduct Road safety assessment for each phase of the road subprojects and will monitor incidents and accidents, and prepare regular reports of such monitoring |
| WB Managing the Risk of Adverse Impacts on Communities from Temporary Project Induced Labor Influx | DMDP II subprojects are expected to involve construction of civil works for which the required labor force and associated goods and services cannot be fully supplied locally for a number of reasons, among them worker unavailability and lack of technical skills and capacity. In such cases, the labor force (total or partial) needs to be brought in from outside the project area. In addition, construction of large infrastructures are known to attract people in search for business and work opportunities. Job seekers influx are often associated with social impacts such as social conflicts, increase in crime and feelings of insecurity, change in social dynamics, pressure on local public services, GBV, etc.  Labour Management Procedure for DMDP II has been prepared to guide identification of risks to and impacts on local communities associated with the temporary influx of labor that typically results from construction works. |
| Use of Security Forces: Assessing  and Managing Risks and Impacts, 2017 | Security related risks are among the vital elements in development of transport infrastructures around the development projects. The security risk can be related to human life, materials around the projects. DMDP II sub-projects shall hire or contract security personnel to protect their employees, facilities, assets, and operations from private security guards, or even deployment of public security forces. However, these security guards may represent risks to the local communities which need to be prevented. |
| WBG EHS Guideline on Waste Management Facilities | The Environmental, Health, and Safety guidelines for solid waste management facilities provide recommendations and best practices for the safe and environmentally sound management of various types of solid waste. The guidelines are prepared to direct the measures at facility to be followed in order to minimizing the potential solid waste impacts on human health and the environment throughout the solid waste management process. |
| Other Industry Specific WBG EHSGs | The following Industry Specific EHSGs will apply to the proposed subprojects: (i) WB EHSG for Health Care Facilities, (ii) WB EHSG for Toll roads (given the various road works and even though not toll roads), (iii) WB EHSG for Construction Materials Extraction (as road and possible other subprojects will need such materials), (iv) WB EHSG for Water Supply and Wastewater (assuming the project may involve liquid waste treatment as part of component 2 or markets built in component 1.4), (v) WB Good Practice Note on Dam Safety (given the water retention/detention pond related works), (vi) WB Guidance on Fire Safety (given buildings to be in component 1.4). |

## National Policies and Legal Framework Relevant to the DMDP II Project

### Policy Framework

Some of the Policy relevant policies which were prepared in line with the environmental policy and support the implementation of the DMDP II operations are:

#### The National Environmental Policy (1997, updated in 2021)

The National Environmental Policy (NEP) came into effect in 1997. NEP provides the framework for making fundamental changes that are needed to bring environmental consideration into the mainstream of decision- making in the country. Among the main objectives of the NEP is to improve the condition and productivity of various sectors including roads in order that all Tanzanians may live in safe, healthy, productive and aesthetically pleasing surroundings. The DMDP II project investments falls in more than one sector of the economy i.e. roads, waste management, health, climate change, urban greening etc. This ESMF environmental process and procedures shall be applicable to all subprojects and implemented by related Departments / Sections at each LGA. Through this ESMF, sections within the LGAs responsible for sub-projects or the PIU will develop lists of priority environmental concerns in their areas and draw plans for dealing with them.

#### The National Occupational Health and Safety Policy of 2010

This policy which is employer-specific, which gives a road map on the requirements for the occupational health and safety in work places and on how to promote the working capacity of the staff. The implementation of the DMDP II subprojects is associated with several occupational health risks due to the nature of the projects. The LGA’s and the PIU shall develop the Health and Safety Management Plans specific to the sites to eliminate occupational hazards and risks in the work place. The plans shall be extended to the community health as some of the components such as Solid waste management and construction of roads and drainage has significant risk to the public health.

#### The National Gender Policy (2002)

The key objective of this policy is to provide guidelines that will ensure that gender sensitive plans and strategies are developed in all sectors and institutions. While the policy aims at establishing strategies to eradicate poverty, it puts emphasis on gender equality and equal opportunity of both men and women to participate in development undertakings and to value the role-played by each member of society. The DMDP II project shall adopt this policy through inclusive design, implementation and operations of subprojects by providing equal opportunity or infrastructure and services that favors both women and men.

#### The National Strategy for Growth and Reduction of Poverty (NSGRP) II (2015)

The strategy put forth goals and strategies that would facilitate economic growth and reduce poverty. The strategy has been aligned with the United Nation Sustainable Development Goals to ensure no one will be left behind. The DMDP II project has a wide spectrum of subprojects that are aligned with this strategy. The identification and implementation of subprojects shall ensure equity within all 5 LGAs to boot the economic development of the city.

#### The National Transport Policy (2003)

The vision of this policy is “to have an efficient and cost-effective transport services to all segments of the population and sectors of the national economy with maximum safety and minimum environmental degradation”. Its mission is to “Develop safe, reliable, effective, efficient and fully integrated transport infrastructure and operations which will best meet the needs of travel and transport at improving levels of service at lower costs in a manner which supports government strategies for socio-economic development whilst being economically and environmentally sustainable”. The DMDP II project include the construction of roads in all Dar es Salaam LGAs to improve the mobility within the city as well as improving climate change resilience.

#### The National Construction Industry Policy (2003)

This policy promotes among other things, application of cost effective and innovative technologies and practices to support socio-economic development including utilities and ensure application of practices, technologies and products which are not harmful to both the environment and human health. The development of DMDP II subprojects shall ensure utilization of best practices to minimize environmental footprint of construction or operation of subprojects.

#### The National Land Policy (1995)

The overall aim of the National Land Policy is to promote and ensure a secure land tenure system to encourage the optional use of land resources (use of land which can contribute to livelihoods improvements or supporting biodiversity conservation), and to facilitate broad-based social and economic development without upsetting or endangering the ecological balance of the environment. Among its specific objectives is to ensure that land is put to its most productive use to promote rapid social and economic development of the country and protect land resources from degradation for sustainable development.

The National Land Policy has several policy statements on Land utilization; Protection of Sensitive areas; Land values; Compensation; Urban and Rural Land Use Planning; Land use management; Overlapping Land use areas; and Wetland. Some of the DMDP II sub projects such as development of land fill and park and green spaces shall require land, therefore selection of project sites the project shall ensure observation of this policy.

#### The National Human Settlements Development Policy (2000)

The overall goals of the National Human Settlements Development Policy are to promote development of human settlements that are sustainable. The main objectives of the policy among others are to improve the level of the provision of infrastructure and social services for sustainable human settlements development; and to protect the environment of human settlements and of ecosystem from pollution, degradation and destruction in order to attain sustainable development. The Policy further calls for communities to participate in identifying critical environmental issues and in the preparation and implementation of the plans. Most of the DMDP II subprojects have impacts to human settlement and therefore the policy shall be observed wherever required.

#### The National Water Policy (2002)

The policy objective is to develop a comprehensive framework for sustainable management of the national water resources. In this case the policy recognizes the need to protect water sources against pollution and environmental degradation. The policy insists on the integrated water resources management involving all stakeholders. It further emphasizes that water resources shall be conserved and water pollution should be avoided. The DMDP II project include among others construction of drainage systems that if not well designed may have implication to the receiving water bodies. The policy shall be observed to ensure the drainage systems are well designed and sited to avoid any form of pollution. Further, the project also includes development of solid waste management systems. This will help to reduce the amount of solid waste that is currently dumped into the water resources.

#### The National Employment Policy (1997)

Aimed at alleviating poverty through increase in per capita income. The policy forbids engagement of a child below 15 years in activities that are exploitative, hazardous to health, or deprive him / her of the right to education and leisure. The DMDP II project is expected to provide employment through construction activities that will result to income generation to the employed. The improved infrastructure by the project shall also favor the improved income of people through reduction of travel time and disruption that is caused by inaccessibility of some places especially during rainy season.

#### The Child Development Policy (1996)

Recognizes child rights to, among others, nutrition, health and shelter, education, safety and rights not to be discriminated against. DMDP II project shall facilitates child development as some of the components such as development of health centers align with this policy.

#### The National Climate Change Strategy (NCCS) – 2012

The goal of this Strategy is to enable Tanzania to effectively adapt to and participate in global efforts to mitigate to climate change with a view to achieving sustainable economic growth in the context of the Tanzania’s national development blueprint, Vision 2025; Five Years National Development plan; and national cross sectoral policies.

To achieve the stated goal, the following specific objectives have been set.

* To build the capacity of Tanzania to adapt to climate change impacts.
* To enhance resilience of ecosystems to the challenges posed by climate change.
* To enable accessibility and utilization of the available climate change opportunities.
* To enhance participation in climate change mitigation activities that lead to sustainable development.
* To enhance public awareness on climate change.
* To strengthen information management on climate change.
* To enhance institutional arrangements to adequately address climate change and
* To enhance mobilization of resources in particular finance to address climate change.

The major project development objective of DMDP II project is to improve urban services and institutional capacity and strengthen climate resilient development in the Dar es Salaam Metropolitan Area. The project is in line with this strategy. The design options of the infrastructure project shall ensure that the climate change is taken into consideration.

#### National Solid Waste Management Strategy 2018

The strategy was developed with the major aim of attaining sustainable management of solid waste that contributes to achieving economic and social benefits to Tanzanian people. The strategy has a guiding principle of promoting of circular economy (Waste is are source that can be harnessed to create wealth, employment and reduce pollution of the environment). the strategy has set both short term medium term and long-term goals with the short term being achieving 30% waste recovery and 70% controlled dumping in key urban areas by 2020, the medium goal of 50% waste recovery and 50% semi – landfilling by 2025 and the long-term goal of 80% waste recovery and 20% landfilling in sanitary land fill by 2030. The strategy also highlighted the need for collaborative efforts by the government, private sector and civil society. The DMDP II project is supporting this project by including in one of it sub projects the development of waste management system for the Dar es Salaam LGAs.

### Legal Framework

Some of the relevant laws that will guide implementation of DMDP II include:

#### The Environmental Management Act, 2004

This is a principal law that governs all environmental matters in the country. Section 81 of the Act refers to the obligation to undertake EIA by the project Proponent at his/her own cost prior to commencement or financing of a project or undertaking. The Act prohibits any development to be initiated without an EIA Certificate. This is ESMF establishes the process for complying with this requirement.

#### The Road Act (2007)

The Act provide procedures for management and use of the road corridor (road and its reserve land). It also specifies the sector specific provisions for environmental planning and management in the road sector. The act defines the classes of roads in Tanzania as well as their responsible authority. The roads are classified as:

* National roads: are either trunk roads or regional roads
* Trunk road: means a road as provided for under section 12(2) of the Road Act. A trunk road is a national road or an international road
* District roads: are either collector roads, feeder roads (urban), community roads

The DMDP II scope of projects falls under the category of district roads that include collector roads, feeder roads (urban) and community roads. The Act further defined the right of way of these roads. The implementation of the subprojects shall observe provision of this acts in defining the roads and their respective right of way.

#### The Land Act of 1999

The Land Act No. 4 of 1999 is the principal law with regard to all land matters such as the management of land, settlement of disputes and related aspects other than the Village Land Act No. 5 of 1999 that specifically deals with “village land” matters. The act provided for the ownership of land tittle or right of occupancy and stipulated the requirement for the compensation the holder of the right of occupancy when the land is required for public development purpose. In regard to the Act, the proposed project shall be implemented on land that will have been legally acquired by the LGAs by complying with conditions of occupancy of the subject land.

#### The Land Acquisition Act, No 47 of 1967

This Act governs compensation and acquisition for public purposes in Tanzania. Sections 4 to 10 provide conditions to be taken into account, specifying requirements prior to the acquisition of the land such as preliminary investigation for the land to be taken, issuing notice of intention to take land and the mode in which notices will be made.

The Act requires valuation and compensation of PAPs before project’s commencement. In addition, Act requires that LGAs abide with procedures in acquiring extra land that will take place during resettlement process for the affected communities as well as compensating those people whom their properties have been affected. The land acquisition for the project will be guided by the DMDP II Resettlement Policy Framework (RPF).

#### The Valuation and Valuers Registration Act, 2016

Valuation takes place whenever there is a need to evaluate the value of an asset or land during displacement. Conditions for Valuation are guided by the "Land Acquisition Act No.47 of 1967.

48. For the purpose of this act, valuations are categorized into: (a) statutory valuation, which is governed by specific law or whose instructions or procedures are a result of a legal requirement;

and (b) non-statutory valuation, which arises out of market demands or specific requirements and are not governed by any law.

This Act stipulates under Section 52 that:

(a) Valuation and valuation report prepared under this Act shall be valid for a specific period of time as may be prescribed; (b) Valuation conducted together with valuation reports prepared under this Act for purposes of compensation shall be valid for the period of two years commencing from the date of endorsement of the valuation report; (c) The endorsement of valuation report shall be effected within six months after the valuation of interest in property of the last person; (d) Where the Chief Valuer has approved a valuation relating to compensation, the person or entity responsible shall be liable to effect prompt payment of compensation to all affected persons; (e) A person or an entity which fails to effect prompt payment of compensation shall, in addition to the principal sum, be liable to pay an interest to be chargeable at the average percentage rate of interest offered by commercial banks on fixed deposits until such compensation is paid; (f) Where the compensation and interest is not settled within two years, the valuation shall not have a legal effect and shall start afresh; and (g) For purposes of this section of the Act, “prompt payment of compensation” means the payment of compensation within six months after approval of valuation by the Chief Valuer.

Valuation of assets and land will be undertaken during Resettlement Action Plan (RAP) planning and implementation for DMDP II subprojects.

#### The Occupational Safety and Health Act of 2003

The Occupational Safety and Health Act No. 5 of 2003 Section 43 (1) provides for safe access to and a safe workplace. In view of these specific provisions and the Act in general the contractor and Proponent are obliged to ensure a safe working environment for all its workers, provide clean and safe water, as well sanitary and first aid services. The Act also provides for the protection of persons other than those at work against hazards to health and safety arising out of or in connection with activities of persons at work.

The contractor and proponent for the proposed subprojects will adhere to the provision of Personal Protective Equipment (PPE) to the workers and safety standards laid out in the legislation and guidelines in addition to their own company policies which need to be presented to the Occupational Safety and Health Authority (OSHA). The DMDP 2 project involve a lot of subprojects with the potential for occupation related health hazards. This ESMF developed procedures for safe work environment both for the construction sites and the handling of wastes during waste collection and disposal.

#### The Employment and Labour Relations Act (2004)

This Act requires the Proponent to observe all core labour rights and related matters including establishing basic employment standards, providing a framework for collective bargaining, and providing for the prevention and settlement of disputes. The issues of labour management are elaborated in the DMDP II Labour Management Procedure (LMP).

#### The Sexual Offences Special Provisions Act 1998

Under section 138, this Act provides that: - with the consent of the person; with the consent of the other person where the consent has been obtained by use of force, threat, or intimidation or putting that other person in fear of death or of hurt or while that other person was in unlawful detention commits the offence;

The Act, further stipulates that any person who, with intention, assaults or by use of criminal force, sexually harasses another person, or by the use of words or actions, causes sexual annoyance or harassment to such and liable on conviction to imprisonment two hundred thousand shilling or to both the fine and imprisonment, and may also be ordered to pay compensation to whom the offence was committed for any injuries caused to that person.

And whoever, intending to insult the modesty of woman utters any word, makes any sound or gesture, or exhibits any other including any organ whether male or feminine, intending that such word or sound shall be heard, or that the gesture or object shall be seen, by the woman, or intrudes upon the privacy of the woman, commits the offence of sexual harassment.

Also, for the avoidance of doubt, unwelcomed sexual advances by words or action used by a person in authority, in a working place or any other place, shall constitute the offence of sexual harassment. The Act also provides that, no prosecution for an offence under this section shall be instituted or continued where the complaint is made by the alleged victim at any time more than sixty days after the occurrence of the event constituting the offence.

#### The Workers Compensation Act, 2008

The Act governs adequate and equitable compensation for all employees on grounds of injury, rehabilitation for occupational illnesses or injury and compensation to dependents and relatives upon fatality. The Act subsumes international standards and frameworks for compensation and promotion for prevention of accidents and occupational diseases. Employment contracts for all labour engaged in the subsequent stages of the Project must stipulate compensation arrangements for incidental work-related injury or sickness.

#### The Antiquities Act of 1964 and the Antiquities Rules of 1991

The Antiquities Act of 1964 and as amended in 1979, and the Antiquities Rules of 1991 govern archaeological research in Tanzania. Under the Act, all objects (relics) that were made or modified by man before the year 1863 are automatically protected under the law. Section 16 of the 1964 Act gives powers to Local Government Authorities, to pass by-laws (with the approval of the Minister responsible for Antiquities) with respect to the preservation of the archaeological heritage in their areas of jurisdiction. They also have mandates to spearhead developments in districts and urban centers (for cities and municipalities) respectively.

Section 10 (1) provides that Any person who discovers a relic or monument, or any object or site which may reasonably be supposed to be a relic or monument in Tanzania, otherwise than in the course of a search or excavation made in accordance with a license granted under section 13, and the occupier of any land who knows of any such discovery on or under such land, shall forthwith report the same to an administrative officer, the Director, the Conservator or the Curator of the Museum.

Subprojects under DMDP II especially that which shall require acquisition of the new land like solid waste management shall observe requirements of the act before and during implementation stages by developing a Chance Finds Procedure before commencement of the project.

### Other Environmental Laws

Other environmental laws relevant to DMDP II are detailed in Table 2-3 below.

Table 2‑3: Other Key Laws Relating to Environmental Management in Tanzania

| **Act** | **Key elements** |
| --- | --- |
| Mining Act [CAP.123 R.E 2019] | The Act sets out government policy on all forms of mining including quarrying and is supported by various regulations covering claims, prospecting rights, mining rights, and royalties. Mining and quarry license applicants are required to submit plans for environmental protection. Each industry is required to establish realistic resource-recovery standards and to adhere to them. Mining plans must be presented before operations begin.  DMDP II subprojects especially the infrastructure projects are expecting to consume substantial quantities of earth materials governed by the Mining Act, in order to comply. |
| Local (District and Urban)  Authorities Act, No. 7 of 1982 | Local authorities are empowered to enact bylaws regarding the protection of soil, agriculture, water supplies, and other natural resources. The act contains provisions to protect human health and regulate pollution. |
| Town and Country Planning  Ordinance, of 1966, Chapter 378 | The ordinance was intended to establish a land-use planning scheme for designated areas. The National Land Use Planning Commission was established to advise government on land conservation and development. |
| Public Health, Sewerage and Drainage Ordinance,  Chapter 336 | The ordinance prohibits the discharge of certain substances into sewers. Violation of the ordinance is an offense, and penalties may be imposed on offenders. |

### Regulations

Below are the descriptions of relevant national regulations to guide implementation of DMDP II.

#### Environmental Impact Assessment and Audit Regulations of 2005 and its Amendments of 2018

The regulations provide the procedures and requirements for undertaking ESlA for various types of development projects with significant environmental impacts. In addition, the Regulations provide a list of projects that qualify for Environmental Assessment procedures in Tanzania. Regulation 46(1) classifies projects into three types: Type A, Special category, Type B1 and B2 based on the risky levels. As DMDP II project contains subprojects with different levels of environmental and social risks, the ESIA will be undertaken based on the category in which the subproject falls in these regulations.

#### The Environmental Management (Water Quality Standards) Regulations, 2007

The applicant for a water right is obliged to indicate the likely impact on the environment and comply with prescribed effluent or receiving water standards, which are not below the standards specified in the regulations if the water right or permit is granted. Other sections of this Regulation is 18 (1) that relates to" duty to comply with environmental quality standards" which stressed the importance of complying to the standards outlined in these regulations such as the prohibition of the discharge of hazardous substances, and any other harmful materials.

#### Environmental Management (Air Quality Standards) Regulations, 2007

Section 8 (1) of the regulations clearly prohibits release of hazardous substances, chemical, gas or mixture containing gaseous and hazardous substances into the environment unless the release or emission is permitted under these regulations.

#### Environmental Management (Hazardous Waste Management) Regulations, 2009

The first schedule of the regulations provides categories of wastes controlled by these regulations and schedule two provides a list of hazardous and non-hazardous wastes. The third schedule in the regulations is a list of hazardous characteristics. In relation to road subprojects, hazardous wastes are associated with the project during the construction and operation phase. During any transportation and/or management of hazardous waste, Contractors will oblige to the requirements of the Regulations.

#### Environmental Management (Solid Waste Management) Regulations, 2009

These Regulations provide guide for waste management in Tanzania. Regulations 7 provided that, LGAs are responsible ensuring minimization of the solid waste in their respective areas of jurisdiction. It requires waste disposal and management to be guided by Precautionary principle, Polluter pays principle and the producer extended responsibility principle. Schedule 1 of the Regulations highlights the types of waste and recommended modes of treatment for the same. To mention a few, schedule 1 suggests that plastic waste should be recycled, and any chemical industrial solid waste should be incinerated at high temperatures. The DMDP II project among others included the waste management component.

#### Environmental Management (Standards for the Control of Noise and Vibration Pollution) Regulations, 2015

These regulations are set to provide for the implementation of sections of the EMA (2004) related to noise and vibration pollution. The maximum permissible noise levels for some activities are specified in the First Schedule of the regulations. And specific to construction sites is 75 dBA and 65 dBA during the day and night, respectively.

#### The Roads Management Regulations of 2009

Regulation clarifies various issues described in the Roads Act by giving details on their implementation arrangements. Issues underlined in Roads Management Regulations are those related to management of roads such as general control of roads, control of use of roads, road management, road of access, prohibited activity, closure of road for urgent action, obstruction to other road users, obstructing road or drain or water course and stopping or clogging drain to mention few. The issue of road width and reserve is also described where each road category is given its width to be reserved as per the requirement of the Road Act of 2007.

#### The Occupational Safety and Health (General Administrative) Rules, 2015

These regulations, among other things, have rules that requires registration of the workplace; establishment of Health and Safety Committees at workplaces; Handling of Hazardous Chemical Substances; Display of substituted notices and signs; etc. The ESMPs and ESIAs for subprojects will develop procedures for OSH specific to each working environment.

#### The Occupational Safety and Health (First Aid and Welfare Facilities) Rules, 2015

These regulations have specific requirements on basic requirements; First aid attendant qualifications; First aid procedures; Information on post exposure; Sanitation; Accommodation for clothing; Change-rooms; Dining room; Prohibition; Seat; Condition of rooms and facilities; First aid attendant; First aid records; Multiple employer workplaces; First aid attendant responsibilities; and Offences and penalties. The sub project specific ESMPs shall define the number of resources required for each site to ensure that the first aid is adequately provided. The DMDP II LMP will set a framework for safety at work place.

### Relevant International Conventions and Treaties.

### These conventions and treats have been ratified by the Government of the United Republic of Tanzania and are relevant to this project

* The Paris Agreement
* Convention on Elimination of all forms of Discrimination Against Women (CEDAW) 1979
* Convention on the Rights of Persons with Disabilities, 2006
* UN Convention on the Rights of a Child,1990
* Convention on Biological Diversity, 1992
* Convention on Wetlands (Ramsar, Iran, 1971)
* The African Convention on the Conservation of Nature and Natural Resources, 1968
* The Stockholm Declaration, 1972
* East African Community Protocol on Environment and Natural Resources, 2006.
* International Labor Organization conventions

## Gap Analysis between the National Regulations and the ESF

In Tanzania, subsequent legislations have been enacted which govern/ ensure compliance and considerations for the adverse E&S Impacts and risks associated with the implementation of DMDP II subprojects. Relevant laws and regulations shall be employed to govern the construction and operation of infrastructure and systems under the project. The World Bank requires that all projects comply with national law, but where there is conflict and gaps exist, World Bank policies take precedence, except in cases where national standards are more stringent (e.g. air emissions or effluents).

Notably, there are some differences particularly in the understanding of how E&S issues are handled as analyzed in the table 2-4 below:

**Table 2‑4: Comparison between the World Bank’s ESS5 and Tanzanian Legislations**

|  |  |  |  |
| --- | --- | --- | --- |
| **World Bank ESS** | **Tanzania Legislations** | **Gaps** | **Measures to fill the Gap** |
| **ESS1: Social and Environmental Assessment and Management System**    **Environmental and Social Assessment**  It requires carrying out an environmental and social assessment of the project to assess the environmental and social risks and impacts of the project throughout the project life cycle.    **Environmental and Social Commitment Plan**  Under ESS1, the environmental and social commitment plan which will set out measures and actions required for the project to achieve compliance with the ESSs over a specified time frame is required to be developed and implemented.  **Stakeholder Engagement and Information Disclosure**  As part of the ESIA undertaking, continuous engagement with stakeholders and provide sufficient information throughout the life cycle of the project, in a manner appropriate to the nature of their interests and the potential environmental and social risks and impacts of the project | **Environmental Management Act**  **No. 20 of 2004**  The Act refers to the obligation to undertake EIA by the project Proponent at his/her own cost prior to commencement or financing of a project or undertaking. The Act prohibits any development to be the project to be initiated without an EIA Certificate. Environmental Impact Assessment study shall be carried prior to the commencement or financing of a project or undertaking.    It also provides for the adoption of the guidelines by the council on public participation, especially those likely to be affected by the project being the subject of an Environmental Impact Assessment study or review. Section 90 provides for calling of public hearing by the council. | The laws of Tanzania do not provide for lifecycle environmental and social risk assessment    Environmental and social commitment plan is not reflected in the environmental legislations of Tanzania    It does not mention information disclosure to the community during the study rather by the call from the National management Council when there is a need | The project will adopt ESS1 for environmental and social impact assessment |
| **ESS 2: Labour and Working Conditions**    **Protecting the Workforce Child Labour and Minimum Age.**   A child under the minimum age will not be employed or engaged in connection with the project. The minimum age specified 14years unless national law specifies a higher age.    **Forced Labor**  It prohibits the employment of forced labor, which consists of any work or service not voluntarily performed that is exacted from an individual under threat of force or penalty. This covers any kind of involuntary or compulsory labor, such as indentured labor, bonded labor, or similar labor-contracting arrangements. The borrower will not employ trafficked persons    **Grievance Redress Mechanism**    It requires provision of a grievance mechanism for all direct workers and contracted workers (and, where relevant, their organizations) to raise workplace concerns. Such workers will be informed. Measures will be put in place to make the grievance mechanism easily accessible to all such project workers    **Occupational Health and Safety**    It is a responsibility of the project implementer to provide a safe and healthy work environment taking into account inherent risks in its particular sector and specific classes of hazards in the work areas. Measures relating to occupational health and safety will be applied to the project. The OHS measures will take into account the General Environmental Health and Safety Guidelines (EHSGs) and, as appropriate, the industry specific EHSGs and other Good International Industry Practice (GIIP). The OHS measures applying to the project will be set out in the legal agreement and the Environmental and Social Commitment Plan (ESCP).    **Contracted Workers**   The Borrower will make reasonable efforts to ascertain that third parties who engage contracted workers are legitimate and reliable entities and have in place labor management procedures applicable to the project that will allow them to operate in accordance with the requirements of this ESS.  **Community Workers**   Projects may include the use of community workers in a number of different circumstances, including where labor is provided by the community as a contribution to the project, or where projects are designed and conducted for the purpose of fostering community driven development, providing a social safety net or providing targeted assistance in ecologically sensitive and conflict-affected situations. Given the nature and objectives of such projects, the application of all requirements of ESS2 may not be appropriate. In all such circumstances, the Borrower will require measures to be implemented to ascertain whether such labor is or will be provided on a voluntary basis as an outcome of individual or community agreement.  **Primary Supply Workers**   As part of the environmental and social assessment, the Borrower will identify potential risks of child labor, forced labor, and serious safety issues which may arise in relation to primary suppliers | There are several legislations in Tanzania that governs labour and working conditions  **The Occupational Health and Safety Act No. 5 of 2003**  The law requires employers to provide a good working environment to workers in order to safeguard their health and ensure safety at the workplace  **The Workers Compensation Act No. 20 of 2008**  The Act governs adequate and equitable compensation for all employees on grounds of injury, rehabilitation for occupational illnesses or injury and compensation to dependents and relatives upon fatality. Under this Act, the contractor/s are obliged to compensate employees in the case of injuries, death, and diseases while rendering their services to the employer/developer    **The Employment and Labour Relations Act No. 6 of 2004**    This Act requires the Proponent to observe all core labour rights and related matters including establishing basic employment standards, providing a framework for collective bargaining, and providing for the prevention and settlement of disputes. No person shall employ a child under the age of fourteen years. Any person who procures, demands or imposes forced labour, commits an offence. Every employer shall ensure that he promotes an equal opportunity in employment and strives to eliminate discrimination in any employment policy or practice. For the avoidance of doubt every employer shall take positive steps to guarantee equal remuneration for men and women for work of equal value.    Every employee shall have the right- (a) to form and join a trade union; (b) to participate in the lawful activities of the trade union. | There is no significant gap between the national laws and the WB ESS. However, there is no single document or law that presents the Labor and Working Conditions issues in particular. The information is available in different pieces of documents.  Issues regarding to community workers are not captured in the National Legislations. However, it might not be an issue in the project as the use of community workers is not foreseen.  From the legal perspective, there is no requirement for development and implementation of Labour Management Procedures/ Plan, as an upfront guidance instrument for systematic planning and management of labour during project design and implementation. | For the project to adequately capture labour and working condition issues, the WB ESS 2 will apply. |
| **ESS 3: Resource Efficiency and Pollution Prevention and Management**      **Pollution Prevention and Management**    It requires avoidance to release of pollutants or, when avoidance is not feasible, minimize and control the concentration and mass flow of their release using the performance levels and measures specified in national law or the EHSGs, whichever is most stringent. This applies to the release of pollutants to air, water, and land due to routine, nonroutine, and accidental circumstances, and with the potential for local, regional, and transboundary impacts.    **Air Pollution Management**  In addition to the resource efficiency measures described above, the Borrower will consider alternatives and implement technically and financially feasible and cost-effective options to avoid or minimize project-related air emissions during the design, construction, and operation of the project.    **Management of Hazardous and Non-hazardous Waste.**    The Borrower will avoid the generation of hazardous and non-hazardous waste. Where waste generation cannot be avoided, the Borrower will minimize the generation of waste, and reuse, recycle and recover waste in a manner that is safe for human health and the environment. Where waste cannot be reused, recycled or recovered, the Borrower will treat, destroy, or dispose of it in an environmentally sound and safe manner that includes the appropriate control of emissions and residues resulting from the handling and processing of the waste material.    **Management of Chemicals and Hazardous Materials**  The Borrower will avoid the manufacture, trade, and use of chemicals and hazardous materials subject to international bans, restrictions or phaseouts unless for an acceptable purpose as defined by the conventions or protocols or if an exemption has been obtained by the Borrower, consistent with Borrower government commitments under the applicable international agreements.    **Management of Pesticides**     Where projects involve recourse to pest management measures, the Borrower will give preference to integrated pest management (IPM) or integrated vector management (IVM) approaches using combined or multiple tactics. | **Water Resources Management Act,2019**  This legislation is based on the principles  of sustainable water resources management guided by;  a)      the precautionary principle;  b)      polluter pay principle;  c)       the principle of eco-system integrity;  d)      the principle of public participation in the development policies, plans and processes for the management of the water resources;  e)      the principle of international co-operation in management of environmental resources shared by two or more states; and  f)        the principle of common but differentiated responsibilities.    This legislation requires application of permit by any person who diverts, dams, stores, abstracts or uses water from surface or underground water source, or for any such purpose constructs or maintains any works from the respective Basin water Board. A person who diverts, dams, impounds, store, abstracts or uses water without water use permit commits an offence and shall, on conviction.    **Environmental Management (Solid Waste Management) Regulations, 2019**    This regulation details the requirements and responsibilities for managing solid waste in Tanzania. It also highlights waste minimization and cleaner production principles alongside the duty to safeguard the public health and the environment from adverse effects of solid waste. It also highlighted the role of Local Government Authority to manage wastes including issuing permit to a person or firm which wish to operate solid waste disposal sites.    **The Environmental Management (Water Quality Standards) Regulations, 2007**    The regulations requires application of water right by the developer and comply with prescribed effluent or receiving water standards, which are not below the standards specified in the regulations if the water right or permit is granted    **Environmental Management (Air Quality Standards) Regulations, 2007**    These regulations require compliance with the minimum water quality standards. It prohibits release of hazardous substances, chemical, gas or mixture containing gaseous and hazardous substances into the environment unless the release or emission is permitted    **Environmental Management (Hazardous Waste Management) Regulations, 2021**  Hazardous wastes are always associated with the construction projects and operation of the subcomponents of this project such as health centers (medical waste). The regulations provide for proper management of these wastes in accordance with relevant law governing the operation of the facilities. Any damage is caused by hazardous waste which has been deposited into the environment, a person who deposited, caused or permitted a waste to be deposited, is liable for the damage to the environment and human health.  **Environmental Management (Standards for the Control of Noise and Vibration Pollution) Regulations, 2015**    The regulations provide for a prohibition for any person to make or cause to be made any loud, unreasonable, unnecessary or unusual noise that annoys, disturbs, injures or endangers the comfort, repose, health or safety of others and that of the environment. | There is no significant gap between the ESS 3 and the national legislations regarding to resource efficiency and pollution prevention |  |
| **ESS4: Community Health and Safety**    ESS4 addresses the health, safety, and security risks and impacts on project-affected communities and the corresponding responsibility of Borrowers to avoid or minimize such risks and impacts, with particular attention to people who, because of their particular circumstances, may be vulnerable.    **Community Health and Safety**    The Borrower will evaluate the risks and impacts of the project on the health and safety of the affected communities during the project life cycle, including those who, because of their particular circumstances, may be vulnerable. The Borrower will identify risks and impacts and propose mitigation measures in accordance with the mitigation hierarchy.    **Infrastructure, Equipment Design and Safety**    The Borrower will design, construct, operate, and decommission the structural elements of the project in accordance with national legal requirements, the EHSGs and other GIIP, taking into consideration safety risks to third parties and affected communities. Structural elements of a project will be designed and constructed by competent professionals and certified or approved by competent authorities or professionals. Structural design will take into account climate change considerations, as appropriate.    **Hazardous Materials Management and Safety**    The Borrower will avoid or minimize the potential for community exposure to hazardous materials and substances that may be released by the project. Safety of Services Where the project involves provision of services to communities, the Borrower will establish and implement appropriate quality management systems to anticipate and minimize risks and impacts that such services may have on community health and safety. In such circumstances, the Borrower will also apply the concept of universal access, where technically and financially feasible.    **Traffic and Road Safety**  The Borrower will identify, evaluate, and monitor the potential traffic and road safety risks to workers, affected communities, and road users throughout the project life cycle and, where appropriate, will develop measures and plans to address them. The Borrower will incorporate technically and financially feasible road safety measures into the project design to prevent and mitigate potential road safety risks to road users and affected communities.    **Ecosystem Services**    The project’s direct impacts on ecosystem services may result in adverse health and safety risks to and impacts on affected communities. With respect to this ESS, ecosystem services are limited to provisioning and regulating services as defined in ESS1. Where appropriate and feasible, the Borrower will identify the project’s potential risks and impacts on ecosystem services that may be exacerbated by climate change. Adverse impacts will be avoided, and if they are unavoidable, the Borrower will implement appropriate mitigation measures.    **Community Exposure to Disease**    The Borrower will avoid or minimize the potential for community exposure to waterborne, water based, water-related, and vector-borne diseases, and communicable and non-communicable diseases that could result from project activities, taking into consideration differentiated exposure to and higher sensitivity of vulnerable groups. Where specific diseases are endemic in communities in the project area, the Borrower is encouraged to explore opportunities during the project life cycle to improve environmental conditions that could help minimize their incidence    **Emergency Preparedness and Response**    The Borrower will identify and implement measures to address emergency events. An emergency event is an unanticipated incident, arising from both natural and man-made hazards, typically in the form of fire, explosions, leaks, or spills, which may occur for a variety of different reasons, including failure to implement operating procedures that are designed to prevent their occurrence, extreme weather, or lack of early warning. The measures will be designed to address the emergency event in a coordinated and expeditious manner; to prevent it from injuring the health and safety of the community; and to minimize, mitigate, and compensate for any impacts that may occur.    **Security Personnel**    When the Borrower retains direct or contracted workers to provide security to safeguard its personnel and property, it will assess risks posed by these security arrangements to those within and outside the project site. In making such arrangements, the Borrower will be guided by the principles of proportionality and GIIP, and by applicable law in relation to hiring, rules of conduct, training, equipping, and monitoring of such security workers. The Borrower will not sanction any use of force by direct or contracted workers in providing security except when used for preventive and defensive purposes in proportion to the nature and extent of the threat. The Borrower will (i) make reasonable inquiries to verify that the direct or contracted workers retained by the Borrower to provide security are not implicated in past abuses; (ii) train them adequately (or determine that they are properly trained) in the use of force (and where applicable, firearms) and appropriate conduct toward workers and affected communities; and (iii) require them to act within the applicable law and any requirements set out in the Environmental and Social Commitment (ESCP) | **Public Health Act, 2009**  This Act provides for the promotion, preservation and maintenance of public health with a view of ensuring the provision of comprehensive, functional and sustainable public health services to the general public and to provide other related matters. It secures the improvement of health habits and life style of people, environmental sanitation and hygiene, preventing and controlling living infectious or communicable and other diseases. It requires notification of any infections or communicable diseases to the responsible authorities to protect other members of the community.    **The Roads Act No. 13 of 2007**  This legislation governs the formulation of the road authorities and their duties. On the community health, the road authorities under this act has a responsibility to ensure safety of the community by; ensure that the necessary road furniture is erected on the public roads, ensure to the safety of road users during the design, construction, maintenance and operation of a public road by providing sidewalks, overhead bridges, zebra crossings and other matters related thereto. The road authorities are also vested powers to close the road when it has been satisfied that it has a road safety concern to ensure safety of the public.    *Other relevant legislations are as provided in the section under Resource Efficiency and Pollution Prevention and Management above* | The national legislations on community health and safety are silent about the security personnel | ESS 4 will apply in case of ay situation involving security personnel |
|  |  |  |  |
| **ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement**    **Eligibility for Compensation**  **Loss of Profits**  **Entitlements and eligibility**    Affected persons may be classified as into three categories:  a)      Persons with formal legal rights to the land or assets they occupy or use;  b)      Persons with no formal legal rights to land or assets, but have a claim to the land or assets they occupy or use that is recognized or recognizable under national law; and  **c)** Persons with no recognizable rights to land or assets they occupy or use.    **Compensation for loss of profit and income**    In cases where land acquisition or restrictions on land use affect commercial enterprises regardless of size and whether licensed or unlicensed.    **Compensation for loss of assets**    When land acquisition or restrictions on land use (whether permanent or temporary) cannot be avoided, the Borrower must offer affected persons compensation at **replacement cost**, as well as other assistance as necessary to help them improve or at least restore their preintervention standards of living and livelihoods.  Land Valuation  **Assistance to vulnerable and severely affected PAP   Public Land Users (“Encroachers”)**    The RAP must provide transitional relocation assistance to physically displaced persons during their relocation to the new site, which may include but not be limited to, transportation, food, shelter, and social services.    **User rights**   Land users/residents with no recognizable legal rights or claim to the land or assets they occupy or use are recognized as having a right to compensation for lost housing, income generation, livelihood activities, and access to resources, although not for the land itself.    **Grievance Handling Procedures Stakeholder engagement and information disclosure**    A project grievance mechanism must be in place as early as possible in project  development to address specific concerns about compensation, relocation or livelihood restoration measures raised by the displaced persons (or others) in a timely manner | **Land Acquisition Act No. 4 and 5 (1967)** Provides for the following:    Minister responsible for land to authorize any person to enter upon the land and survey the land to determine its suitability for a public purpose.  ▪ The Government of Tanzania is supposed to pay compensation to any person who suffers damage as a result of any action.  Eligibility under Tanzanian Law is limited to those who can prove *de jure* or *de facto* land ownership. Seasonal land/resource users are not covered, nor are persons who have constructed on or otherwise use road reserves (i.e., “encroachers”).  According to the Land Assessment of the value of Land for Compensation)  Regulations, 2001, as well as the Village Land Regulations, 2001, compensation for loss of any interest land shall include loss of profits.  Tanzanian Law provides for the calculation of compensation on the basis of the **market value** of the lost land and unexhausted improvements plus disturbance and accommodation allowances as well as loss of profits where applicable.  Tanzanian Law has no provisions  requiring the government to pay special attention to vulnerable groups in the administration of compensation.   Tanzania law on compulsory acquisition and compensation is limited to those who can prove *de jure* or *de facto* land ownership.    Under s.13 of the *Land Acquisition Act, 1967,* if dispute or disagreement regarding the below-listed below is not settled by the concerned parties within six weeks of the date of publication of the expropriation notice, the Minister or person holding claim in the land may institute a suit in the high court of Tanzania for the determination of the dispute. | Currently in Tanzania there is no specific-resettlement policy itemizing procedures and processes to prevent PAPs from being left worse off by a project.    There is no gap between Tanzanian Law and ESS5 with regard to eligibility for compensation of persons with formal legal rights and those without formal legal rights but with a claim to land under customary practices. ESS5, however, has stronger protections for informal residents and land users than does Tanzanian Law.    Tanzanian regulations provide for income restoration allowances where the PAPs have incurred losses of business income. This has not, however, been applied in practice.  There is a gap between the two approaches of Market Value and Replacement Cost. Under the Market Value approach, the amount paid often fails to replace the lost land and assets.  There are no provisions requiring government to pay special attention to vulnerable groups or indigenous peoples.    Tanzanian Law does not recognize seasonal land/resource users/persons who have done any development on affected land as eligible for compensation for assets or provision of resettlement and livelihood assistance.    Tanzanian Law does not provide for the establishment of grievance resolution mechanisms specific to particular resettlement operations. Tanzania has a well-established and accessible local grievance redress mechanism through existing systems and structures. | ESS5 will apply. RAPs will be prepared following both national and ESS5 guidelines, to be reflected in the RPF.      Under this project, all eligible owners of land will be eligible for compensation. PAPs encroaching land will also be eligible for compensation for development on encroached land (as well as livelihood restoration) but not for the affected land itself. Affected tenants are not eligible for compensation, but are eligible for livelihood assistance of accommodation allowances for three months.    Compensation for the lost income and profits will be paid as per ESS5.  Under the DMDP II, eligible PAP will be entitled to compensation, to be calculated via the  Replacement Cost approach, to ensure that all impacted assets are fully compensated/replaced.    These PAPs will be identified and special assistance provided to ensure their full participation and access to project benefits, and to safeguard them from being left worse off by the project.  Under the DMDP II, seasonal land/resource users/persons with assets (i.e., structures, etc.) on the affected land will be compensated for loss of income and livelihoods associated with restrictions of use of their assets (permanently or temporarily).    GRMs will be set up for this project in line with World Bank ESS5 guidelines, and particularly the need for timely response and resolution, which the six-week timeframe in Tanzanian Law could jeopardize. |
| **ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources**    ESS6 recognizes the importance of maintaining core ecological functions of habitats, including forests, and the biodiversity they support. Habitat is defined as a terrestrial, freshwater, or marine geographical unit or airway that supports assemblages of living organisms and their interactions with the non-living environment. All habitats support complexities of living organisms and vary in terms of species diversity, abundance, and importance. ESS 6 also addresses sustainable management of primary production and harvesting of living natural resources. ESS6 recognizes the need to consider the livelihood of project-affected parties, including Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities, whose access to, or use of, biodiversity or living natural resources may be affected by a project. The potential, positive role of project-affected parties, including Indigenous Peoples, in biodiversity conservation and sustainable management of living natural resources is also considered. | **Wildlife Conservation Act of 2009**  Prohibits livestock keeping, crop cultivation or any agricultural activities in any wetland reserve areas    **Tanzania Forest Act of 2002**  Safeguards ecosystem stability through conservation of water catchments and Requires all developmental projects in watersheds to adhere to Environmental Impact Assessment (EIA) mitigation measures    **National Environment Policy of 2021**  Aims at strengthen conservation of wildlife habitats and biodiversity; enhance conservation of forest ecosystems for sustainable provision of environmental goods  and services; manage pollution for safe and healthy environment; enhance conservation of aquatic ecosystem for sustained ecological services and socioeconomic wellbeing    **Environment Management Act No. 20 of 2004**  **-**Recognizes wetlands as fragile ecosystems that play an important role in water systems  and Mandates the National Environmental Management Council (NEMC) to oversee the management of all natural resources including wetlands. | There is no significant gap existing |  |
| **ESS8:  Cultural Heritage** | The Antiquities (Amendment) Act, 1979, and the Antiquities Act, 1964 (hereinafter referred to as the ''principal Act''), and The Environmental Management Act, 2004, Section 73 – “Protection of natural and cultural heritage - Any matter or activity relating to protection and conservation of natural and cultural heritage shall take into account necessary requirements for the protection of environment as provided for under this Act”. | The National Legislation does not provide well defined Chance Finds Procedure for onsite use, consultation of stakeholders during assessments and implementation, disclosure requirements & procedures, among others. | The ESS8 shall be complied during implementation of the project. In case there is an indication of presence of any cultural sites during detailed study, Chance Finds Procedure should be prepared |
| **ESS 10: Stakeholder Engagement and Information Disclosure.**    This ESS recognizes the importance of open and transparent engagement between the Borrower and project stakeholders as an essential element of good international practice. Effective stakeholder engagement can improve the environmental and social sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and implementation. | **The Environmental Management Act, 2004**    Provides for ESIA studies to conduct robust stakeholder engagement and information disclosure.    **EIA/EA regulations 2005 and amendments 2018**    Public participation is a key requirement during the ESIA process. The regulations requires environmental experts or firm of experts to ensure that there is adequate stakeholder participation in all stages of the Environmental Impact Assessment and their concerns are fully taken into account during the assessment of impact. The ESIA shall define the mechanisms for stakeholder participation during the monitoring and auditing process followed through.  The regulations require constant liaising with relevant authorities and consult stakeholders  including local communities in case of any new development or changes as regards to implementation of your project plan or activities | The legislations does not clearly indicate the need for stakeholder engagement plan and grievance redress mechanism. It also does not clearly define the information disclosure requirement | ESS 10 will apply for the project |

**ESS-1: Assessment and Management of Environmental and Social Risks and Impacts:**

Principal sector legislation EMA 2004 and subsidiary legislation is not aligned with the new 2021 NEP policy. Many of these are more than ten years old. Some of the gaps identified include the following:

* SESA is applied to policies, bills, regulations, strategies, programs, and plans to identify the full range of potential E&S impacts, issues of concern, and positive effects arising from their implementation. This assessment is not site-specific but applied to operations at the national, and zonal, regional levels (sector-wide programs, Economic Processing Zones, water basins, etc.). EMA Section 105 specifically requires SEA for minerals, petroleum, hydroelectric power, and major water projects. SEA Regulations of 2008 stipulate the scope of an ESIA and require that the process cover.
* While ESMF is not a requirement under the Tanzanian E&S management system, it is commonly applied in projects financed by the World Bank. ESMFs are used in projects that contain multiple subprojects whose location, impacts, and risks are not yet known. The ESMF sets out the principles, rules, guidelines, and procedures to be applied to assess and mitigate a subproject’s impacts and risks once details are available.
* Other gaps include the following:
* NEP 2021 enumerates the following capacity-related challenges to E&S management in Tanzania:[[14]](#footnote-14):
* Inadequate coordination among sectors in environmental management;
* Low public awareness and knowledge of environmental management;
* Inadequate land-use planning at several Government levels;
* Inadequate enforcement and compliance of environmental regulations;
* Limited capacity in terms of human, financial, infrastructure, technology and tools; and
* Inadequate research data on environmental issues.

**ESS-2: Labour and Working Conditions:**

The Tanzania OSH Policy and Legal provisions materially meet the objectives of ESS-2. However, E&S Management Capacity shall be reviewed and considered further during the field Mission in consultation with the relevant MDAs. *From the legal perspective, there is no requirement for development and implementation of Labour Management Procedures/ Plan, as an upfront guidance instrument for systematic planning and management of labour during project design and implementation*. *). Other aspects to be verified during field Mission include Due Diligence on Third Parties, Management of Primary Suppliers, and Mechanism of engagement of Community Work/Labor.*Due diligence on use of Third Parties (Contractors), Community Workers, Primary Suppliers, shall be checked in Contracts (sample recent contracts during field mission).

**Other Institutional aspects to be considered:** Specific OSHA Legal mandate for staffing, Structure and numbers for (E)H&S Inspectors, Coordination/procedural with MDAs & Local Governments (6 = Energy, Roads, Railways, Water & Sanitation, Environment and Natural Resources, Education, Health)/ Enforcement, Conduct of H&S Inspections (procedures) and operational requirements (Permits & Certificates), operational Capacity building & formal Training for OSH, Financing H&S at National & LG-levels.

ESS8: Cultural Heritage

Managed under The Antiquities (Amendment) Act, 1979, and the Antiquities Act, 1964 (hereinafter referred to as the ''principal Act''), and The Environmental Management Act, 2004, Section 73 – “Protection of natural and cultural heritage - Any matter or activity relating to protection and conservation of natural and cultural heritage shall take into account necessary requirements for the protection of environment as provided for under this Act”.

**Scope.** The Act does not cover intangible cultural heritage.

**Globally recognized practices.** The Act does not provide well defined Chance Finds Procedure for onsite use, consultation of stakeholders during assessments and implementation, disclosure requirements & procedures, among others.

**Consultation.** The requirement to Identify and carry out meaningful consultations with stakeholders, including project affected parties and other interested parties (including local or national authorities) to identify cultural heritage, consider the significance of it and identify mitigation measures, is not provided for, or covered under the Act.

**Confidentiality.** There is no provision for non-disclosure of sensitive information which would be considered to jeopardize the safety or integrity of the cultural heritage.

**Access.** Sections 4 and 28 allows access by Government Officials to enter and inspect any monument at all reasonable times. The Act does not provide overriding considerations on the basis of health, safety and security to justify access at all reasonable times.

Summary Observations and Recommendation:

Antiquities (Amendment) Act, 1979, and the Principal Act - Antiquities Act, 1964 need to be updated to take into consideration aspects related to intangible heritage and aligned with emerging globally recognized practices for field-based studies such as consultation with stakeholders, documentation and disclosure and protection of cultural heritage, including confidentiality, access, etc.

**General Recommendations: Addressing Key Gaps**

In the short term, the following project-by-project arrangements are recommended:

* + Generally, in cases where gaps are found between the WB ESFand the Government of Tanzania Environmental requirements, the World Bank Environmental and Social Standards shall take precedence especially on matters which are not explicitly provided in the National Legislation requirements.
  + For each substantial risk sub-project, the ToRs for the ESIA/ESMP need to be very specific about the process to be followed (including meaningful stakeholder consultation) and the expected contents of the ESIA/ESMP, reviewed and approved by the TANROADS (as applicable) and the World Bank.
  + Where applicable, sub-projects ESMPs must be included as a key component of bidding documents and contracts. They must be specific about roles and responsibilities for implementing the ESMP, performance indicators, triggers for remedial actions and reporting arrangements.
  + Develop mechanisms to improve institutional coordination (such as joint assessments, monitoring) to ensure post ESIA compliance and effectiveness monitoring and supervision; and involvement of the respective LGAs and Statutory Agencies (NEMC, OSHA), during project implementation (construction phase) and O&M phase.

## Institutional Framework for Environmental Management

The implementation of the ESMF will apply the laws, legislation, regulations, and local rules governing Environmental Management in Tanzania as well as the World Bank E&S Standards (ESSs). For the purpose of environmental and social management for DMDP II project, institutional responsibilities are defined hereunder. PORALG will play the lead coordination role, the DLA Project Implementation Units (PIUs) will implement projects, and both will work with other agencies, including ministries such as Ministry of Works and Transport, National Environmental Management Council (NEMC), other government agencies and the design and supervision consultants and build contractors

### Project Implementation Arrangements

The DMDP II project will be implemented by President’s Office, Regional Administration and Local Government (PO-RALG) together with TARURA and all five implementing District Local Authorities.The respective authorities will be responsible for implementing all the project components; where PO-RALG through TARURA will mainly Coordinate while the LGAs will have the implementation role.

PO-RALG and TARURA have gained vast knowledge and experience on implementation of Urban World Bank funded project through DMDP I project implementation in then Kinondoni, Ilala and Temeke Municipalities. However, considering that the DMDP 1 was implemented prior to enactment of the new World Bank Environmental and Social Framework, all implementing agencies will have to undergo detailed training on Environment and Social.

### Assessment of the Institutional Capacities to Manage Environmental and Social Risks and Impacts

The overall project implementation and coordination function will be undertaken by PO-RALG that has an established Project Coordination Team (PCT) engaged in urban projects in Tanzania in the past. PO-RALG and TARURA have existing safeguards capacity in terms of staffing and some knowledge as far as environmental and social safeguard is concern. as a result of working with the World Bank, specifically all urban projects PO-RALG had also recruited environment and social specialists and consultants that will continue working with PORALG for the upcoming DMDP 2 Project as well as the on-going projects of Msimbazi Development. Each LGA under the DMDP project will establish a project implementation team that will comprise of among others an Environmental officer, Staff responsible for social safeguard, a valuer and a staff responsible for grievance handling. Growing capacity is expected for both PO-RALG and TARURA due to the fact that, they have recruited a good number of staff and participated in several similar projects all over the country. Under the PCT, PO-RALG has also increased the number of social and Environmental Team from 3 to 5 staff as well as 2 staff that will cover the Solid waste component.

The same specialists will continue to support the proposed DMDP II Project. Considering that some of the staff and LGAS (Ubungo and Kigamboni are relatively new to ESF, a training needs assessment will have to be undertaken during the design stage for the existing E&S staff at both PO-RALG (WBCU) and implementing LGAs and further to undertake capacity building and strengthening in project management and knowledge enhancement in dealing with the requirement of the new World Bank ESF in projects administration.

Implementation of infrastructure and solid waste sub-projects under Component 1 and Component 2 will be undertaken by the five DLA PITs (LGAs PITs, with oversight and coordination by PO-RALG. The Kinondoni, Temeke and Dar es Salaam City Council (formerly Ilala Municipal Council) have in place functional Project Implementation Teams (PITs) with dedicated staff for implementing works that were established under DMDP, including procurement, contract management, environmental and social standards and M&E. They also have experience dealing with complex projects in urban settings, including informal settlement upgrading under DMDP phase I. Because the Ubungo and Kigamboni Municipal Councils were established midway through DMDP implementation, they do not yet have functional PITs, and they have limited experience in social risk management under the ESF. These capacity concerns will be addressed through focused capacity building that has been itemized in the Environmental and Social Commitment Plan (ESCP) and project implementation support from the Bank. Th PITs will be established two months after project effectiveness with training provided on World Bank ESF requirements and procedures.

The PCT with an overall responsibility for monitoring compliance has experience in environmental and social risk management at the national level. Furthermore, at LGAs level, Ilala, Kinondoni and Temeke municipals that implemented DMDP have experience in managing social and environmental issues under their PITs under WB old policies while the Ubungo and Kigamboni have no experience in managing E & S issues as per the ESF. However, both PCT and LGAs have limited experience in addressing and managing ESS aspects under the ESF thus it will be critical to build capacity of PCT and LGAs in application of ESSs under ESF and enhance compliance with environmental and social risks management.

### Requirements for Training and Capacity Building

Dedicated safeguards staff (e.g. environmental, OHS and social staff) and sufficient experienced consultants will be engaged to support project preparation and implementation as well as ensure that there are sufficient resources to implement the project and manage they key environmental and social risks that have been identified. The project will within two months of project effectiveness support establishment and maintenance of a PCT at Ministerial level and PIT at LGA level, each with qualified staff and resources to support management of ESHS risks and impacts of the Project including at a minimum a full-time One Environmental Specialist and a full-time One social specialist and One Occupational Health and Safety (OHS) Specialist.

Capacity building is mandatory for successful implementation of DMDP II subprojects, all participating parties will be trained, and these include the following:

* TARURA Dar Es Salaam Region Safeguard Staff
* TARURA District Office Project implementing team
* Participating LGAs PIT
* Design Consultants
* Contractors and Supervision Engineers/Consultants

All project implementing LGAs will be responsible to implement the work, including sub-projects safeguards and project reporting to WBCU. Each LGA will establish a full time PIU staffed with dedicated team of officers to carry out safeguard responsibilities. The Bank has worked in the past with three of the LGAs under the DMDP 1; therefore, their capacity for meeting Bank’s ESSs is known to be sufficient though for sustainability of the project all LGAs will have to undergo detail Environment and Social Safeguard training.

LGA local staff at Ward and Mtaa level as well as Grievance Handling Committees and representatives of local communities will also go through various trainings that will enable them be part of the implementation of the ESMPs prepared for each sub-project.

The Design engineers, contractors and supervising engineers will also train all workers about environmental, social, health and safety and the site-specific environmental and social measures to be followed. All workers should be trained prior to starting work on site and trainings should be conducted periodically as needed.

The following issues will be covered:

* World Bank’s ESF;
* How to use DMDP II Project E&S instruments (ESMF, RPF, SEP and LMP);
* Subproject and site screening;
* Resettlement issues;
* Stakeholder Engagement;
* Waste management;
* Grievance handling and the functioning of the project GRMs;
* GBV and SEA/SH prevention measures
* Occupational health and safety (OHS);
* Labour issues, including codes of conduct;
* Preparation and implementation of Contractor’s ESMPs;
* Environmental and social management of construction works;
* Environmental and social supervision of construction works; and
* Reporting requirements; etc.

# ENVIRONMENTAL AND SOCIAL BASELINE CONDITION OF THE PROJECT AREAS

This section presents a description of the existing environment, comprising the bio-physical and socio-economic conditions of participating LGAs in Dar es Salaam.

## Introduction to Dar es Salaam

Dar es Salaam is the largest city and financial hub of [Tanzania](https://en.wikipedia.org/wiki/Tanzania) located at 6°48' S, 39°17' E on a natural harbour on the coast of East Africa, with sandy beaches in some areas with a total area of it has a land area of 565 km². According to the population census of 2022, Tanzania has a population of 59,851,347 people with population growth rate of 3.2. out of this population, 20,618,348 live in urban while 39,232,999 live in rural areas. Dar es Salaam is the metro city of Tanzania and exhibits the largest population about 9% of the national population. According to the census 2022, the city has a population of 5,383,728. The city is one of the fastest growing cities in the World. Dar es Salaam is divided into 5 LGAs namely Kinondoni, Ubungo, Temeke, Kigamboni and Dar es Salaam City council. The DMDP II projects are distributed within the 5 LGAs of Dar es Salaam.

### Climate

Dar es Salaam experiences tropical climatic conditions, characterized by hot and humid weather throughout the year. It has a [tropical savanna climate](https://en.wikipedia.org/wiki/Tropical_savanna_climate)  i.e. wet and dry climate. Annual rainfall is approximately 1,100 mm with two rainy seasons: the "long rains" in April and May, and the "short rains" in November and December.

Like many cities in the world, Dar es Salaam is already experiencing the impacts of climate change. The city has recently experienced a number of flooding events after long dry periods. Further, the projected increased mean rainfall and its cyclical variation indicates more frequent and severe flooding to be a likely impact. These will lead to more damaging impacts to infrastructure, livelihood and the economy.

As per the ThinkHazard tool, Dar es Salaam is also considered a high-risk area for floods that are mainly associated with climate change effects, human activities and lack of proper infrastructures for managing storm water.

### Dar es Salaam Urban Open Spaces

The provision of open spaces in Dar es Salaam have been stipulated in the policies and legislations of Tanzania adopt from the colonial era. The open spaces are provided for the purpose of establishing Parks, sports grounds, playing fields or green spaces. As per the National Human Settlements Development Policy of 2000, the role of urban open spaces is “essential for clean air circulation and breaking up of the monotony of the built-up environment. They are important as children’s playgrounds and football grounds for recreational purposes. When planted with trees and flowers, open spaces provide greenery and increase the aesthetics of urban areas”. According to the Dar es Salaam Master Plan of 2012-2032, 1.8 percent of land use is for recreational spaces in the city. Among recreational, 202.5 ha consist of open spaces, 1.3 ha is for public parks, 40. 1 ha are playgrounds, 60.2 ha of consist of botanical gardens, 109.1 ha is golf course land, 2501.3 ha is forests, and 34.1 ha is made of beaches. However, most of the areas earmarked for open spaces e.g. are occupied by other activities rather than the ones stipulated. According to the Ministry of Land and Human Settlement, about 30% of green spaces are invaded and the remaining 70% are threatened. The study by Sanga and Daniel[[15]](#footnote-15) the areas are dominated with myriad activities including small-scale vending, accommodation for the homelessness as well as lingering of hawkers and young drug addicts.

## Temeke Municipality

### Environmental Baseline

#### Location

Temeke Municipal Council lies between 39º12' - 39º33' east and 6º48' -7º33' south in the south of Dar es Salaam. It borders Coast Region in the South, Ilala Municipality in the north and west while in the east it is bordered by the coastal line of the Indian Ocean where the coast line has 5km. It has a total land area of 240sq kilometers. The Municipal is divided into two administrative divisions namely Mbagala and Temeke with 23 Wards and 142 Mitaa.. Currently, the Temeke Municipal Council has 2 constituencies named as Temeke and Mbagala. According 2022 Census the Municipality had a total population of 1,346,574 people.

#### Hydrology and Water Resources

Like other places of Dar es Salaam, Temeke Municipality experience rains in two seasons; the monsoon rains occurring almost throughout the Municipality between December and February and the long heavy rains in the months of March to June. The annual rainfall T ranges from 800 – 1200mm per annum. As the municipality hosts majority of industries in Dar es Salaam, that discharge untreated effluents directly or through storm water drainage, river creeks and streams or estuary drainage into the sea, surface waters are polluted by wastewater originating from industries, households, road surfaces, drains and other activities such as small-scale enterprises. The major source of water is the water distribution system owned by Dar es Salaam Water and Sewerage Authority (DAWASA) and managed by Dar es Salaam Water and Sanitation Corporation (DAWASCO). Other sources are boreholes which are managed by institution, water user association (water committees) and private owned boreholes.

#### Storm Water Drainage

The stormwater drains are managed by the Municipality except those along the major roads and other roads that are managed by road agencies (TANROADS and TARURA). According to the Dar es salaam Master plan 2012 - 203[[16]](#footnote-16) ,the drains in Dar es salaam are divided as the main drainage system and flood protection structures that are managed by the Dar es Salaam City Council (DCC) and street and local drainage that is provided by individual landowners.

#### Flora:

The Municipality has a total of 2,041 ha of natural forest reserve area that includes the coastal mangrove along the creeks and estuaries and on coastal shores. These forests contain unique indigenous wood species such as teak and ebony. There are 5 fauna species of ecological importance such as Coconut palm, variegated Croton, Flamboyant, Desert Rose and white ribbon flower. However, none is listed as endangered. The DMDP II components are located in already disturbed areas most of them in the urban set up.

#### Fauna:

Temeke Municipality contains a significant amount of domestic and non-domestic fauna species including livestock, poultry, wild birds, snakes and other reptiles on the fringes of periurban areas e.g., Mbagala areas. According to the iNaturalist[[17]](#footnote-17) Temeke Municipal harbors 67 species of non-domestic fauna out of which 3 species are listed as endangered. These are Green Sea Turtle, Angola Colobus and African Buffalo.

### Socioeconomic Environment

#### Social Characteristics

Referring to the National Population Census of 2022, Temeke Municipal Council has a population of 1,346,674 where males were 655,137 and female 691,537. The sex ratio population was 95; 384,046 number of households and average household size of 3.5.

The decline of the Council population, among other factors was due to the establishment of Kigamboni Municipal Council.

There is immigration of people within the Municipality; the impact of higher population immigration in Temeke Municipality is associated with high demand of social services, economic infrastructures, and social security measures.

The social problems within the Municipality include poverty, prostitutions, illegal drug users, child labour GBV/Gender related issues and crimes are experienced in Temeke Municipality.

About 90 percent of the entire population is Zaramo; other includes Ndengereko and Makonde whose major occupation is informal business (vendor / petty trade), agriculture (small scale farms).

The government employees in key sectors education, health, agriculture and livestock, and natural resources.

Malaria prevalence Malaria is the number one killer disease in the country and is also considered as the major cause of death of people living with HIV/AIDs in the country. Due to this fact, the government decided to combat malaria along with the HIV/AIDs disease. Temeke Municipal Council like other councils in the country has decided to use similar methods used by the nation to fight against malaria.

#### Social Infrastructure

Markets

For the time being there 14 formal markets with the capacity of small traders. The modern market includes Kijichi and Makangarawe, Other markets include Temeke Stereo, and the other markets’ operating informally includes Yombo Limboka, Bulyanga, Mbagala Mangaya, Mbagala nyoka, Yombo Machimbo.

**Houses**

In all the 5 LGAs to implement the DMDP 2 the type of house are dominated by 70% permanent structures; fairly at good conditions; the remaining 30% are either very poor due to being old or constructed with poor or tradition construction materials that include mud and or burnt bricks. The design consultant as well as the contractor will consider housing condition as part of project implementation.

Transportation Infrastructure

Temeke Municipal Council is served by trunk, regional, district and feeder roads. The roads that are maintained by the central government are classified as trunk or regional roads, while those that are maintained by the Municipal Council are called district or feeder roads; the rest of the roads are called peripheral roads or feeder roads and are mostly maintained by sub wards (Mitaa).The council has roads network with the total length of 628 km, whereby 98.41 km is tarmac road, the gravel roads are 140.48 km and Earth road is 389.11 km. Within 628km of the total network is under the TANROAD supervision. In which 59.km tarmac road, 136.5 km and 379.7km is supervised by TARURA-Temeke.

Health Facilities

Health services are provided by both private and government owned facilities. Temeke Municipality has a total of 117 health facilities. The municipal has a total of 33 public facilities, 2 hospitals, 1 health center, 28 dispensaries and 2 Reproductive and Child Health (RCH) Clinics. There are 84 private facilities of which 2 are hospitals, 5 health centers and 77 dispensaries. According to Temeke Municipal Council health department bureau, Health facility distribution stretches as far as 28 km from the Municipal headquarters. The existing facilities are at least within 5 km radius to each other. The most prevalent diseases are Malaria, Urinary tract infection and acute respiratory infections.

Education

Temeke Municipal Council had an increase number of pre- primary schools from 2017 to 2019. From 2017 to 2019 the number of schools increased by 131 in 2017 to 141 in 2020. Majority of the schools owned by the Government. Various initiatives have been made to eradicate illiteracy. Along with expansion of primary and secondary education, adult education is also expanded using primary schools as centres and the adult education campaigns through the MEMKWA programme.

Water and Sanitation

Temeke Municipal Council has 232 deep boreholes. Out of 232 boreholes, 116 are public owned i.e 69 for Primary schools, 23 for Health centers, and 24 for Secondary schools. Total number of households connected to DAWASCO network is 9,516 out of 368,416 in 13 wards out of 24 wards. Bore holes and shallow wells are scattered in different places in the Municipality.

Sanitation facilities in Temeke Municipal are fairly well spread. About 75 percent of the populations of Temeke municipal were using toilets of one type. The most common way of disposing human waste is through pit latrines. Moreover, over flooding toilets and uncollected garbage pollute the environment of the Municipal. They also attract diarrhea and water-borne diseases in the municipal.

Temeke Municipal Solid Waste Generation and collection

Temeke Municipality is estimated to generate about 1,494 tons of solid waste per day, The solid waste collection rate is around 964 tons per day, or approximately, 65% of all solid waste generated per day is collected and transported to the dumpsite and about 529 (35%) tons of waste are remain uncollected and 150 ton are collected from markets, since the figures of recycling and diversion is not shown anywhere, we assume that is within of uncollected figures. As DCC, the TMC Solid waste collection services are provided both by the council and by private companies and Community Based Organization groups.

Table 4‑1: Equipment and Tools Used to Deliver Solid Waste Collection

| S/N | Type of equipment | No | In operation | Not working | Equipment required |
| --- | --- | --- | --- | --- | --- |
|  | Tipper truck | 1 | 1 | - | 4 |
|  | Skip loader | 6 | 4 | 2 | - |
|  | Skip containers | 22 | 22 | - | - |
|  | Compactor truck | - | - | - | 4 |
|  | Street sweeper | - | - | - | 2 |
|  | Tipper for sand removal | - | - | - | 2 |
|  | Supervision car | - | - | - | 2 |
|  | Bajaj | 1 | 1 | - | 1 |
|  | Wheel loader | 1 | 1 | - | 1 |

Source: Strategic Plan for Cleanliness of TMC

Note: The above equipment and tools are very important to increase the coverage of SW collection in municipality.

Disposal Site

Currently, Temeke Municipality is using Pugu Kinyamwezi dump site.

## Kigamboni Municipality

### Environmental Baseline

#### Location

Kigamboni Municipal Council was established by subdividing Temeke Municipal Council into two councils namely Temeke Municipal Council and Kigamboni Municipal Council. It is one of the new LGAs formulated in 2016 due to the population increase and to facilitate the aims of the Government to record comprehensively the major achievements in provision of social services. It borders with Indian Ocean in the East, Mkuranga District in the South and Indian Ocean and Temeke Municipal Council in the Northern. The Kigamboni Municipal Council has an area of 577.86 km² with a coastal line of 65km length with a population of 317,902 based on the population census, 2022.

Administratively, Kigamboni Municipal Council is comprised of three divisions divided into 9 wards and 67 sub wards (‘Mitaa’).

#### Hydrology and Water Resources

Municipality receives moderate rainfall from November to December, and heavy rainfall between March and May. Rainfall patterns are however, extremely variable and unpredictable. The rainfall ranges over 1000 mm per year. Water distribution system is owned by Dar es Salaam Water and Sewerage Authority (DAWASA) and managed by Dar es Salaam Water and Sanitation Corporation (DAWASCO). Further ton this, the Kigamboni Municipal has different water bodies including ocean, streams, rivers, bore holes, wetlands and swamps.

#### Storm Water Drainage

Like other places of Dar es Salaam, Kigamboni is suffering poor drainage system for management of storm water. The drainage systems are the responsibility of the municipal council except those along the road that are managed by the road authorities (TANROADS and TARURA).

#### Biodiversity

Tanzania has a coastal line of about 800 kilometers out of which 65 kilometers is found in Kigamboni. The Municipal is endowed with world-class coastal natural attractions and large expanses of unspoiled coastal habitats. The availability of the longest coast shore make Kigamboni to harbor a lot of ecological important flora and fauna. Other ecological important features include mangrove forest reserve, small islands of Kendwa, Makatube, Fungu Baraka and Sinda Island.

### Socioeconomic Baseline

#### Road Network

Kigamboni Municipal transport is relying on both roads and water (ferry) which connects Kigamboni with other Dar es Salaam Municipals. Roads connect Kigamboni with Temeke Municipal while water way (ferry) connects Kigamboni with Kinondoni Municipal (Road network map). The dominant mode of transport used in Kigamboni Municipal is the road network, whereby 76% of Kigamboni inhabitants use roads which include Nyerere Bridge while 18% uses both road and ferry and the rest (6) use water (ferry) only.

The Kigamboni Municipal has a total road network of 1,035.30km (managed by TARURA). Out of this only 5.47 km (about 0.53%) is paved making it among the municipalities with least paved roads. The municipality has 325.00 gravel, 694.03 engineered earth and 10.80 un-engineered earth roads. Only 14.63km of gravel road are in good condition and are at least accessible throughout a year. Poor roads are associated with poor drainage that increases a risk of urban flooding. Generally, the road network in Kigamboni Municipality is Poor.

#### Health Services Situation

Health facilities in Kigamboni include hospitals, Health Centres and Dispensaries both private and public. There is one hospital that operates in the Municipal which is publicly owned and located at Vijibweni, 4 health centers, 3 of them are owned by the Government, 34 dispensaries, 19 of them are publicly owned and 15 owned by Private Sector. As compared to the growing population of Kigamboni, studies suggest that, purposive effort is required to either build health centers or increase number of dispensaries in Kigamboni Municipality. The most prevent diseases are Upper respiratory Infection, Urynary tract Infection, Diarhoea with no dehydration and Malaria for all age groups.

#### Solid waste Management

Solid waste generation is at average of 228 tonnage per day, while the capacity of collection and transportation up to dumpsite is approximately 145 tonnes per day which is equivalent to 63% of all solid waste generated in municipality are collected. Waste separation/diversion and recycling is at average of 15 tonnes per day which is equivalent to 6.6% of waste generated in Municipality (Kigamboni Municipality solid waste Management survey report, March, 2020).

Table 4‑2: Types of Waste Generated in Kigamboni Municipality

|  |  |
| --- | --- |
| **Source** | **Solid Waste Generation in Tones** |
| Households | 219.2 |
| Institutions | 0.5 |
| Markets | 4.6 |
| Street sweepings | 1.9 |
| Industries | 2 |
| Total | 228.2 |

Table 4‑3: Solid Waste Composition and Characteristics

| **Type of Waste** | **Weight (ton)** | **%** |
| --- | --- | --- |
| Organic waste | 156.2 | 68.5 |
| Paper | 9.04 | 4 |
| Glass/bottles | 3.9 | 1.7 |
| Electronic waste | 0.3 | 0.1 |
| Metals | 7.06 | 3.1 |
| Grass/Wood | 15.02 | 6.6 |
| Plastic | 19.2 | 8.4 |
| Ceramic and stones | 7.8 | 3.4 |
| Leather and rubber | 3.3 | 1.4 |
| Textiles | 4 | 1.8 |
| Others | 2.2 | 1 |
| TOTAL | 228 | 100 |

Mode of Solid Waste Collection and Transportation

Solid waste from households and business establishment are collected by using eight (8) CBOs with hand carts and TOYOs and sent waste to designated collection point and then after the two (2) contracted contactor/franchisee they collect and transport to dumpsite. Most solid waste contractors are prefer to provide more frequent service to business premises such as restaurants, hotels, Institutions and shops due to collection charges are more readily payable than in households.

Disposal site

Currently, Municipality is relying using Pugu Kinyamwezi dump site, which is too far from Kigamboni. This situation creates a high cost for transportation of solid waste. Also, this situation sometimes forced solid waste contractors/CBOs to dispose illegally along the river and sand quarries.

Table 4‑4: Challenges Facing Kigamboni Municipal to Deliver Proper Solid Waste Services

| **No** | **Faced Challenges** | **Solution to Mitigate Challenges** |
| --- | --- | --- |
| 1. | High transportation cost to transport waste from Kigamboni to Pugu dumpsite (100+ kms to and flow) | KMC to identify site for construction modern landfill site  KMC to identify site for collection points and Material Recovery Facility  Increase awareness to community to separate, divert and recycle waste at the point of generation  Establishment of compost unit at Mtaa level in order to recycle organic waste and make a good organic compost |
| 2. | Lack of designated disposal site | KMC to identify site for construction modern landfill site |
| 3. | Accumulation of dust and sand at tarmac road | KMC to recruit CBOs to clean the tarmac roads at least twice a week |
| 4. | Illegal dumping of waste inside the roadside drains | Each Ward Developing Committee should take care the surveillance of illegal dumping at its area of administration |
| 5. | Illegal dumping of waste into river banks, open spaces and at the sea shore | Each Ward Developing Committee should take care the surveillance of illegal dumping at its area of administration |
| 6. | Inadequate equipment and tools to deliver solid waste services | KMC to encourage PPP in SWM delivery  KMC to allocate funds for procuring of trucks and other machine for SWM service delivery |

## Kinondoni Municipality

Kinondoni Municipal Council is bordered to the north by Bagamoyo District and Kibaha of Pwani Region, to the east by the Indian Ocean, the west by Ubungo District, and to the south by the Ilala District with a total land area of 321 km2. Administratively, it is divided into twenty (20) wards and 106 sub-wards with Kawe and Kinondoni being the electoral districts that make up the Municipal. According to the population census of 2022, the Kinondoni district has a population of 982,328 people.

### Environmental Baseline

#### Hydrology and Water Resources

There are two distinct rainy seasons: a short period from October to December and a longer one from March to May. 1,300 mm of rain falls annually on average. About 81% of the water used daily comes from DAWASA systems, with the other 45% coming from deep wells that are both privately and collectively owned. There are 123 boreholes, and 366 water points, and involves approximately 400 privately owned boreholes. It is estimated that, about 81% of the Kinondoni population have direct access to clean and safe water within 400 meters.

#### Storm Water Drainage

Generally, the drainage system is not adequate to handle storm water during the events of heavy rains. The municipal has a sewer system that was installed in 1960’s and 70’s where a small number of the population is connected with majority using septic tanks. As mentioned in the Dar es Salaam Master plan, the sewer and drainage systems are clogged by solid wastes that results to flooding during rainy season. Areas that indudates mostly are Kinindoni B, Kinondoni A, Msasani area, Mikocheni and Mwananyamala. According to the study done by COWI and Procels, 2014[[18]](#footnote-18), The existing drainage infrastructure is constituted by the Sinza River (Mto Ng’ombe) which is an open channel drain with a generally undersized cross section with its final section downstream (Kawawa Road) which is mainly influenced by Msimbazi river levels. As indicated by Kinondoni, 2018[[19]](#footnote-19), many infrastructure development problems including spontaneous flooding in the old and new developed areas are brought about by the inadequacy for sewerage services in the city. Improvement of drainage and sewage system is paramount due to the pressurizing factors such as increased urban population and construction of the multistory buildings in the city.

#### Vegetation

Both natural and man-made forests exist in Kinondoni. [Old-growth forests](https://en.wikipedia.org/wiki/Old-growth_forest) consists of lowland vegetation with sporadic dominant trees, bushes, tall grasses, and mangrove forests, particularly near the shore and river estuaries, whereas man-made forests are composed of trees that have been planted by the National Forest department and are overseen by Kinondoni ward governments. According to Myers et al., 2000[[20]](#footnote-20), Kinondoni Municipality is located in one of the biodiversity hotspots for conservation – the Coastal Forest of Tanzania/Kenya). However, these areas are not envisaged to be affected by the implementation of DMDP II. Assessment of subprojects will determine the extent of the impact if any.

### Socioeconomic Environment

#### Kinondoni Road Network

The Kinondoni Municipal has a total road network of 1,694.18km (managed by TARURA). Out of this only 171.99 km (about 10.15%) is paved. out of that 56.35km is in poor condition that requires immediate repair. The municipality has 623.24km gravel and 898.95km engineered earth roads. Only 43.42km of gravel road are in good condition and are at least accessible throughout a year.

#### Health Services

The Kinondoni Municipal has both private owned and government owned health facilities. There are 188 health institutions in the Council, 27 of which are held by the government while 161 are privately operated. The largest hospital is the Kinondoni Municipal Hospital in Mabwepande.

#### Solid waste Management

The amount of waste generated per day is at average of 982 tons per day. The collection of solid waste to dumpsite is at average of 75% of total waste generated per day. Waste recycling is around 20-25 tons per day which is organic waste processed at Mabwepande compost plant.

Table 4‑5: Profile of Solid Waste Service Providers at KMC

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Type of Service Providers** | **No. of Service Provider** | **Serviced Wards** | **Number of Trucks** |
| 1 | Franchisee/ waste contractors | 6 | 13 | 33 |
| 2 | Community Based Organization (CBOs) | 3 | 3 | 4 |
| 3 | WDCs – using KMC trucks /skip containers | 2 | 2 | 5 |
| 4 | WDCs using Waste Franchisees and Contractors | 2 | 2 | 2 |

Table 4‑6: Names of SW Contractors and Wards Serviced

|  |  |  |
| --- | --- | --- |
| **No** | **Name of Contractor** | **Serviced Wards** |
| 1 | Abby Environmental | Msasani, Kigogo na Mzimuni |
| 2 | GIN investment | Mikocheni, Kinondoni, Hananasifu na Kunduchi |
| 3 | Ngalawa Investment | Kawe, Bunju na Mitaa mitano ya Wazo na Mitaa miwili ya Ndughumbi |
| 4 | BUSAE | Kijitonyama na Mitaa miwili ya Ndughumbi |
| 5 | NIMA | Mbezi Juu |
| 6 | SG MSENGI | Makongo |
| 7 | Magomeni Taka Group | Magomeni |
| 8 | Peramiho Group | Makumbusho |
| 9 | KIUWA KMC | Mitaa mitatu ya Wazo |
| 10 | DAR SAFI | Mbweni |
| 11 | Serikali ya Kata Mabwepande | Mitaa miwili ya Mabwepande |
| 12 | Serikali ya Kata Tandale | Tandale |
| 13 | Serikali ya Kata Mwananyamala | Mwananyamala |

Table 4‑7: Requirements of SW Trucks and Equipment

|  |  |  |  |
| --- | --- | --- | --- |
| **Type of Truck** | **Requirement** | **Present** | **Deficit** |
| Compactor truck | 24 | 14 | 10 |
| Open Truck | 92 | 76 | 16 |
| Skip loaders | 10 | 5 | 5 |
| Tractor | - | - | - |
| Toyo | 10 | 4 | 6 |

Table 4‑8: Challenges Facing Kinondoni Municipal to Deliver Proper Solid Waste Services

| No | Faced Challenges | Solution to Mitigate Challenges |
| --- | --- | --- |
| 1. | High transportation cost to transport waste from Kinondoni to Pugu dumpsite (80+ kms to and flow) | KMC to identify site for construction modern landfill site  KMC to identify site for collection points and Material Recovery Facility  Increase awareness to community to separate, divert and recycle waste at the point of generation  Establishment of compost unit at Mtaa level in order to recycle organic waste and make a good organic compost |
| 2. | Lack of designated disposal site | KMC to identify site for construction modern landfill site |
| 3. | Accumulation of dust and sand at tarmac road | KMC to recruit CBOs to clean the tarmac roads at least twice a week |
| 4. | Illegal dumping of waste inside the roadside drains | Each Ward Developing Committee should take care the surveillance of illegal dumping at its area of administration |
| 5. | Illegal dumping of waste into river banks, open spaces and at the sea shore | Each Ward Developing Committee should take care the surveillance of illegal dumping at its area of administration |
| 6. | Inadequate equipment and tools to deliver solid waste services | KMC to encourage PPP in SWM investments and service delivery  KMC to allocate funds for procuring of trucks and other machine for SWM service delivery |

Note: Challenges facing Kinondoni are quite the same as reported in Kigamboni MC

## Ubungo Municipality

The Ubungo Municipality is bordered by the Kibaha District to the North, Kinondoni District to the South-East, and Kisarawe District to the West. It is well linked by roads and other communication network with the rest of the city and other parts of the country. It is the major gateway to Dar es Salaam city and the port of Dar es Salaam. It is divided into two majpor divisions of Kibamba and Magomeni and fourteen (14) wards, and 91 Mitaa. The municipality has a total area of 260.40 square kilometres with a population of 1,086,912 people as per population census of 2022.

### Environmental Baseline

#### Hydrology and Water Resources

There are two distinct rainy seasons: a short period from October to December and a longer one from March to May. 1,300 mm of rain falls annually on average. The main source of water for Ubungo residents is from Lower and Upper Ruvu which managed by Dar-es-salaam Water and Sewerage Authority (DAWASA) that contributes 68% of water being consumed the rest is contributed by shallow and deep wells which owned by both private and community. The mean water table lies at a depth of approximately 3m. The prominent surface water resources are two rivers which are Kibangu river and Ng’ombe River. Both the rivers are seasonal.

#### Storm Water Drainage

The Ubungo Municipality being among the densely populated Municipalities is suffering from floodings due to lack of adequate drainage and clogging of existing drains by solid waste. Unplanned settlement is also one of the major cause of floods due to blockage of water ways and burying of the existing drains.

#### Vegetation

The municipal does not feature extensive vegetation cover but has patches of sparse trees, shrubs and grasslands that are common to the rest of Dar es Salaam. There are no forest reserves in Ubungo, and only a few vegetated parks within the university area. Most of the fauna existing are domestic animals.

### Socioeconomic Baseline

#### Ubungo Road Network

Ubungo Municipal has a total road network of 576.79km managed by TARURA. Out of these 52.58 km about 9% is paved while the rest are in different standards of gravel (209.02km) and engineered earth standard (315.19km). This makes access difficulties especially during rainy season. Unimproved roads lacks drains which conveys storm water in the event of heavy rains hence floods mainly in the areas of Sinza and Manzese.

#### Solid Waste Management

Ubungo Municipality is estimated to generate about 827.4 tons of waste per day (equivalent to 302,001 tons/year) which gives about 0.9kg/per capital per day according to the current generation projections based on the other informal sectors comprise this amount. With regard to where the source originates, household account for almost 80% followed by market waste (2%). Since waste generated in these areas are mainly organic, it explains why the main fraction of the waste being generated in Ubungo being Organic. Table 1.4 summarizes waste generators in Ubungo Municipality.

Table 4‑9: Solid Waste Generators

|  |  |  |
| --- | --- | --- |
| **No** | **Source of Waste** | **Tons/day** |
| 1. | Household waste | 661 |
| 2. | Commercial waste | 12.4 |
| 3. | Institutional waste | 4.9 |
| 4. | Market waste | 16.5 |
| 5. | Streets waste | 0.74 |
| 6. | Informal sector waste | 131.6 |
| **TOTAL** | | **827.4** |

Solid Wastes Composition

Organic waste constitutes a large proportion of the solid waste stream in the Municipality. The Calorific (Heating) value of the waste is estimated to be as low as 10,000 to 12,000 kJ/kg which is too low to be considered for Refuse Derived Fuel (RDF). Moisture contents ranges from 30 to 40% depending on the time of year and the waste density average at 390kg/m3. Table 4-10 summarizes the composition and trends of changes of the waste.

Table 4‑10: Waste Composition and Trend of Changes in the Composition

|  |  |  |
| --- | --- | --- |
| **Type of waste** | **JICA 1997 (%)** | **ERC 2004 (%)** |
| Kitchen waste | 45 | 39 |
| Textile | 17 | 6 |
| Grass and woods | 24 | 10 |
| Metal | 2 | 5 |
| Ceramic and stones | 1 | 5 |
| Paper | 4 | 8 |
| Plastic | 2 | 16 |
| Leather and rubber | 1 | 6 |
| Glass | 3 | 2 |
| Other | 1 | 3 |

Waste storage

Waste storage is under the direct responsibility of the waste producer; waste is stored in different types of containers, e.g. dustbin, plastic bags, old plastic buckets, baskets, boxes, open piles, but invariably some people discharge waste without even any storage facility, indiscriminately dump waste in open spaces, storm water drains, valleys and along the roads.

Waste Collection and Transportation

In Ubungo, waste management services are delivered in two system. Firstly, at Municipal level through Department of Environment and Solid Waste Management with the use of available resources it carries out the activities of cleaning, waste collection, transportation and fee collection in public areas i.e main roads, markets, hospitals, and open spaces. Market waste is usually collected in skip bins which are collected by trucks and transferred to the disposal site. Currently, Ubungo municipal council has three tipper trucks, two skip container truck and six skip bin containers for collection and transportation of solid waste.

Secondly, through the engagement of private operators at subward (mtaa) level. Private operators which could be a company, NGOs or CBOs are selected via competitive tender processes managed by Mtaa/Ward Executive offices. Waste management fees commonly called Refuse collection fee provided within the bylaws are sometimes determined and agreed in the Mtaa formal meetings with stakeholders and stipulated in the service contracts. The fees are collected by Mtaa Executive Office electronically using Point of Sales, POS machine. The sub ward (mtaa) Mtaa Executive Officer are responsible for cleaning, waste collection, transportation at the households, private sectors, commercial centers and institutions.

Currently there are no transfer stations within Ubungo municipality and generally speaking, waste is collected at curbside from households, commercial establishments, institutions, markets, and street sweeping collection points. Types of vehicles used for waste transportation are such as such as lories, compactor trucks, pushcarts and wheelbarrows. Where access by collection vehicle is impractical, collected waste from these areas is taken initially to neighborhoods collection sites by handcarts for secondary storage before transportation to the dumpsite. In planned and unplanned areas of the municipality where the populations are less affluent and the neighborhoods more congested, waste is collected using handcarts for delivery to neighborhoods collection sites or taken directly to these sites by householders.

Size of Population Served by Current Waste Collection

Based on the surveys and investigations conducted in 2020, the population that is served by the waste collection service is 360,972 which is 35% of the total population while the remaining 670,000 people (equal to 65% of the total) are not served by the municipal council waste collection system.

Solid Waste Disposal

Currently Ubungo Municipality does not have a sanitary landfill or any other disposal facility and so the collected solid waste has to be transported to Pugu-Kinyamwezi dump site which is the only authorized waste disposal site in Dar es Salaam. The dumpsite is located about 40 km from the center of Ubungo municipality and this makes the round trip to be about 80 km long.

## Dar es Salaam City Council

The Ilala.Municipal now Dar es Salaam City Council (DCC) is bordered to the north and northeast by Kinondoni District and Ubungo District, to the east by the Zanzibar Channel, the west by Pwani Region, and to the south by the Temeke District. It covers an area of 365 km2. Administratively it is organized into three administrative divisions: Ilala, Ukonga, and Kariakoo. The district is divided into 36 wards, which are further subdivided into159 mitaa. According to the population’s census of 2022, Ilala has a total population of 1,649,612 people that makes the highly populated municipality in the Dar es Salaam region. It is the center of business in the country with the major market of Kariakoo.

### Environmental Baseline

#### Hydrology and Water Resources

Like the rest of Dar es Salaam Region, rainfall in the DCC are two seasons: March – June and October – December, and the annual rainfall ranges between 1 000 and 1200 mm. the main source of water is piped water by DAWASCO about 60% from lower and upper Ruvu water sources along with deep and shallow wells. The municipality has two major rivers of Msimbazi and Yombo. Msimbazi river basin has a length of approximately 60 km and a basin area of 240 km2 and Yombo river has a basin area of 24.9 km2. As pointed out by COWI and Pocesl Yombo River is heavily polluted by industrial wastewater discharges from industries located to the north of the informal settlements. According to the Dar es Salaam Master Plan (2012 – 2032) heavy metal contamination has been reported in several areas of Dar es Salaam. Especially in the Msimbazi river. According to Mato, 2002[[21]](#footnote-21), indiscriminate waste disposal present in Dar es Salaam poses a great danger of polluting the Groundwater as there are high nitrate levels and bacterial contamination in boreholes located in high residential areas like Buguruni, Manzese and Mabibo.

#### Storm Water Drainage in DCC

Storm water management is the responsibility of the municipality except those along the roads that are managed by road authorities of TANROADS and TARURA. The city drainage is broken down into two components. The first comprises the main drainage system and flood protection structures that are managed by the Dar es Salaam City Council (DCC). The second component is street and local drainage, which is provided by individual landowners (Dar es Salaam Master Plan (2012 – 2032)).

#### Vegetation

The natural flora/vegetation of Ilala Municipal includes various species of disturbed bushland and woodland species comprising of coastal shrubs, Miombo woodland, vegetation in coastal swamps and mangrove trees (URT, 1984). Common tree species include Coconut palm (Cocos nucifera), Neem tree (Azadirachta indica), tropical mango trees (belonging to the genus Mangifera) and Ashoka tree (Polyalthia longifolia) (which are among the most commonly planted trees in Tanzania) and a few African teaks (Milicia excelsa).

On the fauna, the most common are domestic animals, some bird species such as the Indian Crow; Corvus splendens, and reptiles such as lizards and rats as well as flies

### Socioeconomic Baseline

#### Health Facilities Situation

There are 23public health facilities and about 115 private health centers and dispensaries do refer their patients to Amana District hospital which is the only public referral facility in the Municipality. Due to its affordability about 70% of the population in Ilala Municipality utilizes health services in public facilities. According to the Dar es Salaam Master plan, over 30% of residences walk up to 1km to access a health facility which is way above the recommended standard of 0.5km by the town planning standards and regulations.

#### DCC Road Network

Ilala Municipality has a total road network of 1,136.25km managed by TARURA. Only 142.11 km are paved with the majority of them being in Kariakoo division. The rest of the roads are 346.25km gravel roads and 647.89 km engineered earth roads majority of them in Ukonga division.

#### Solid Waste Management in DCC

Ilala Municipality is estimated to generate about 1,100 tons of solid waste per day, based on a generation rate of 0.7kg per person per day. The solid waste collection rate is around 550-600 tons per day, or approximately, 50% to 54% of all solid waste generated per day is collected and transported to the dumpsite and about 176 (16%) tones of recyclables are diverted from the waste generated to recycling activities. Solid waste collection services are provided both by the council and by private companies and Community Based Organization groups.

#### Mode of Solid Waste Collection and Transportation

Residents in ten wards are provided with door-to-door collection services using compactor, tipper trucks and standby storage containers (wheeled bins and metal static bins); the rest of wards have a combination service comprising of door-to-door collection as well as communal point collection with trucks, trailers, and handcarts. Basically, the handcarts deliver solid waste to the collection points where by either trailers or skip containers have been stationed or these are towed later to dumpsite using trucks or tractors or using skip master truck available.

It is estimated that about 60% of solid waste is collected by trucks providing door to door services while 40% is collected by handcarts, more often handcarts are used for daily collection from restaurants and households.

It should be noted that eleven wards are above all high and middle-income residential and commercial areas. The collection point is often an open area from which solid waste is cleared on specific days, once or twice per week. In most cases, the CBOs/Contractors who operate in low-income wards use hired trucks for the transportation of solid waste to the dumpsite. Most service providers (contractors) provide more frequent service to business premises such as restaurants as they generate more solid waste and where collection charges are more readily payable than in dwelling houses.

Disposal site

The Pugu dumpsite is located approximately 30 km from the city center Dar es Salaam. The infrastructure leading to facility is poorly due to lack of maintenance of approach road and internal dumpsite roads, the former constructed concrete road is currently covered by the huge amount of pilled waste. In rainy season, it can be very difficult to approach the dumpsite and often it is also impossible to access it for the waste trucks to move easily during tipping and turning back.

Generally, the condition of Pugu Kinyamwezi dumpsite is in bad condition and need the urgent intervention to rescue the situation by removing the piled waste, speeded and compacted by using either landfill compactor/bulldozers in order to allow free movement of trucks to tip and back to continue working. To continue operating the equipment on an unstable dumpsite platform is dangerous and can lead to accidents of trucks and machines at site.

.

# IDENTIFICATION OF POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS

## Overview

This Chapter discusses the general assessment of the potential environmental and social impacts and risks that DMDP II components, subcomponents and activities could generate based on:

1. the described overall environmental and social conditions of the general project areas in the baseline information as presented in Chapter 4;
2. the nature of the project activities (civil works, solid waste management, institutional strengthening, etc);
3. the extent and duration of change, the potential number of people or resource affected; and
4. the sensitivity to the changes.

Potential impacts can be both negative and positive (beneficial), and the methodology defined below will be applied to define both beneficial and adverse potential impacts. The criteria for determining significance are generally specific for each environmental and social aspect but generally the magnitude of each potential impact is defined along with the sensitivity of the receptor.

## Key Sub-projects Potential Environmental and Social Impacts

The overall impact assessment of the DMDP II proposed activities reveals that most of the likely adverse impacts are ranked as High to Low and these can be avoided, prevented, mitigated or compensated by implementing the measures and actions plans to be proposed in this ESMF and later assessment in more detail by implementing ESIA/ESMPs. The project interventions will also generate important beneficial impacts to the beneficiary communities.

In order to estimate the main risks on the project proposed intervention, the project proposed components and subcomponent have been assessed with potential risks as indicated in Tables 5-1.

In the subsequent sections, these potential impacts of the project (components, subcomponents and activities) are discussed in more detail and measures are describe to avoid, prevent, mitigate and compensate the impacts and risks that will be acceptable for the World Bank and applicable with Tanzanian laws and regulations.

Table 4‑1: Preliminary Summary of Generic List of Environmental and Social Impacts of the DMDP II Components and Subcomponents and Proposed Activities.

| Subproject | Potential Impacts per phase |
| --- | --- |
| **Component 1: Climate-Smart Priority Infrastructure** |  |
| *Sub-Component 1.1: Resilient Transport Infrastructure* |  |
| 1. Upgrading and construction of priority sections of the local and feeder road network; | Construction   * Impact on land, structures, flora and fauna * Impact on air, noise, water and biodiversity * Waste generation, disposal and related pollution impacts * Temporary economic displacement * Impact on livelihoods, Health and safety of the workers and communities * Impact on schools, religious places, health centers, local markets etc. * Degradation and alteration of the natural environment * Flooding, landslides, erosion, and sediments deposition * Impact on cultural property and chance finds * Management and restoration of material sites and supporting facilities   Operation and maintenance phases.   * Induced developments including urban sprawl. * Flooding, landslides, erosion, and sediments deposition * Impacts on women mobility * Increase of traffic * Risk of increased GBV * Risk of road accidents * Climate risk * Income generation through maintenance * resource utilization (water and energy * primary supplis eg road base materials, etc.), * impacts on receiving waters * potential change in landuse * addressing existing environmental liabilities along roads (wastes, etc) * impacts on utilities |
| 1. Upgrading and construction of bridges; |
| 1. Construction of pedestrian paths, cycle lanes and paths, solar street lighting, street trees, roadside drains, greening and erosion control infrastructure. |
| *Sub-Component 1.2: Resilient and Green drainage Systems* |  |
| 1. construction of stand-alone drains using a combination of grey and green drainage infrastructure; | **Construction**   * Impact on the flows of the rivers and streams ecosystems; * Degradation of habitats * Delays caused to business due to temporal restrictions in access to business and livelihood activities * Depletion/ pollution of ground water sources * Soil erosion * Stream and surface water pollution downstream * Air and noise pollution * Health and safety of workers * Community health and safety including traffic impacts * Impacts on flora and fauna   **Operation**   * Impacts on water abstraction for watering * Income generation due to employment in maintenance of the facility * Increased demand for more trees for planting * Waste generation * Temporary restriction in access and   Economic impacts on business (formal and informal) |
| 1. water detention, retention, and infiltration basins; |
| 1. sediment traps; |
| 1. sustainable urban drainage system features (soakaways, tree planting, swales, berms, green roofs, filter drains, riprap, and other erosion control structures). |
| ***Sub-Component 1.3: Parks and Open Space*** | |
| 1. landscaping and greening; | **Construction**   * Impact on land and vegetation land possible change in landuse, impact on fauna * Impact on air, noise, water supply wastewater disposal, and biodiversity * Waste generation   **Operation and maintenance**   * Temporary economic displacement * Impact on livelihoods, Health and safety of the workers and communities * Risk of increased GBV * Risk of road accidents * Waste generation in the use of these facilities * More water demand to cater for maintenance |
| 1. recreational features; |
| 1. utilities and buildings; |
| 1. paths for cycling and walking; |
| 1. sustainable urban drainage system features (soakaways, tree planting, swales, berms, green roofs, filter drains, riprap and other erosion control structures). |
| ***Sub-Component 1.4 Area Based Urban Development*** | |
| 1. local roads, drainage, street lighting, public spaces, landscaping, and utilities services; | * Impact on land, structures and vegetation * Impact on air, water and biodiversity * Waste generation * Existing environmental and social liabilities, markets, health clinics, * Changes in landuse * Indirect impacts/risks due to developments in areas adjourning/ near these facilities * Infrastructure design and safety issues, safety of services, traffic and road safety, community exposure to health issues, management and safety of hazardous materials, emergency incidents   **Construction**   * Temporary economic displacement * Impact on livelihoods, Health and safety of the workers and communities * Impact on schools, religious places, health centers, local markets etc. * Impacts on women mobility * Impacts on income generation   **Operation and Maintenance**   * Increase of traffic * Risk of increased GBV * Risk of road accidents * Climate risk * Impacts on income generation * Impact on the standard of living improvement |
| 1. upgrading and construction of public markets; |
| 1. bus stands; |
| 1. health clinics, childcare centers, and government services. |
| **Component 2: Metropolitan Solid Waste Management Infrastructure and Services** | |
| 1. construction of new landfills; | **Construction**   * Livelihood impacts on informal recyclers (waste pickers) * Air Pollution * Streams and surface Water Contamination through runoff * Soil degradation * Diseases transmission * Aesthetic and Visual Impact * Fire Hazard * Greenhouse Gas Emissions * Traffic congestion due to construction activities * Medical and toxic wastes impacts * Change in landuse * Indirect impacts to land and areas near landfill * Workers and Community health and safety * Resource utilization * Need for soild and other materials for landfill construction * Impacts on flora and fauna * Land-use conflicts when landfills are not well located   **Operation and Maintenance**   * Occupational health and safety of workers * Contamination of ground water from leachate * Soil contamination and risk of biological uptake of toxic chemicals (e.g. heavy metals) * Traffic congestion * Noise and Odor * Smoke from open burning of uncollected waste * Loss of employment * Littering and waste clogging drains * Illegal dumping * decreased property values * Exposure to Hazardous Substances * Waterborne diseases * Equipment damage * Safety concerns * Lack of residents cooperation with collection systems |
| 1. closure of dumpsites considering feasible options for solar energy production or landfill gas capture; |
| 1. construction of transfer stations; |
| 1. construction of recycling, composting or other waste treatment systems and financing of programs to support them; |
| 1. results based financing for solid waste collection, disposal and recycling systems; |
| 1. institutional strengthening and legal reform to support the development of an inter-municipal solid waste management organization for Dar es Salaam; |
| 1. Support to informal waste sector integration and alternative livelihoods. |
| **Component 3: Strengthening Urban Institutions** | |
| 1. Strengthening of service delivery and sustainability for municipal and city-wide services targeted under components 1 and 2. This will review and reform human resources, organization, protocols and procedures, IT systems; revenue and billing, asset management and maintenance arrangements; | * Improving national capacity on service delivery * Increase effectiveness of the institutions * Promoting sustainability of the projects * Improving institutional management * Improvement of operational plans * Improved information management * Provides flexibility and response to the changes * Early recognition gaps on existing and future demand * Identification of priorities * Setting up implementation goals * Enhance population linked infrastructure * Facilitate management and mitigation of risks associated with changing climate * Assured sustainability * Balancing of conflicting demands * Increased economic growth * Aesthetic appealing of urban areas * Facilitates social changes * Improved governance * Facilitates creation of long term development strategies * Assured timely, efficient and effective response to events * Protected lives, environment and property   Negative Impacts   * Electronic waste * Failure to provide adequate financing for proper EHS operation and maintenance phase budgets. * risk of indirect impacts/risks due to additional development due to project and associated EHS impacts, risks * Add negative impact and risk due to ERP operations including equipment maintenance, disposal of contaminated wastes, etc. |
| 1. Strategic Service and Infrastructure Planning and Standards would be undertaken, |
| * financing the updating of existing infrastructure and service plans (drainage, roads, green spaces, markets) |
| * Improving mechanisms of infrastructure coordination and design of new investments that incorporate climate change and related innovations proposed under component 1 and 2. |
| * It will also finance the updating or establishment of infrastructure and design standards to incorporate these elements including updating by-laws, guidelines and other legal instruments; |
| 1. Strengthening urban planning through preparation of urban plans (land use plans and surveys, hazard informed planning);. |
| * improving organization, by-laws and regulations, procedures and processes and IT tools for urban development controls |
| * It would also finance strengthening of the city-wide master planning process; |
| 1. Emergency Response Planning would be strengthened through support of the operation of regional government’s emergency response team and community level emergency plans. |
| Component 4: Project Management |  |
|  | * Successful implementation of the project * Assured project’s sustainability |

## Potential Environmental Impacts during Project Phases

In this ESMF, environment is broadly defined to include the physical environment (air, water and land) and the natural and social environment (ecosystems, humans, socio-economics and health and safety), including the probability of certain environmental and social hazards occurring and the likely severity of impacts resulting from such occurrences. This section of the ESMF outlines how DMDP II can respond to the needs for environmental and social management. The section provides generalized guidance on the management of potential environmental and social impacts inclusive of mitigation measures.

Potential direct and cumulative environmental and social impacts and risks are a result of interactions between the activities of DMDP II with the relevant baseline aspects. WBCU at the PO-RALG with the support of consultants as needed, will undertake specific impacts identification for each subproject to be supported by DMDP II guided by the following:

Impacts identification linking causes of impacts and identification (cause-effect interactions); and

All valued receptors–physical, chemical, biological, built or human on the project sites, both direct and indirect area of project (subproject) influence or off-site locations–need to be considered as required during the preparation of the DMDP II project.

The potential impacts of projects are outlined in the next section categorized as Social and Environmental. The source of most impacts will be the construction activities undertaken by DMDP II, while others will arise during the operational phase. The list of impacts are generic to capture the set of impacts possible for subprojects located in the five LGAs. Suggestions are also provided on some possible mitigation measures as well as required ESS guidance during assessment and preparation of specific measures. The specific mitigation measures for each subproject will be included in ESMPs.

### Project Siting/Planning Phase

#### Positive Impacts

##### Risks Management

Environmental and Social Screening at this phase shall help in creating a sound foundation for effective environmental management of a project. ESIAs for subprojects shall be conducted in accordance to the requirements of ESS1.

#### Negative Impacts

##### Environmental Consequences

Negative impacts on environment during project preparation/design leads to several undesirable consequences, which ultimately jeopardize the very objectives of growth and development for which the project was proposed. Improper planning at this stage will result in non-sustainability of greening initiatives. Assessment of impacts and preparation of measures to reduce/avoid impacts shall be guided by the requirements stipulated in the World Bank’s ESS1 and ESS3.  Landfill siting assessment which is a fundamental study that needs to be done prior to any ESIA. This would also apply to Transfer stations or other waste treatment operation. Facility siting needs to conform to land-use plans, providing a buffer zone to minimize aesthetic impacts, considering proximity of residential developments (because of noise, traffic and impacts of gas migration), prevailing wind direction (because of dust, odor & smoke), and ground water flow (because of water supply wells and receiving surface waters). During planning, it is also important to take into consideration appropriate alternatives and undertaken proper technical assessment of alternatives for solid waste disposal and waste treatment, and for addressing existing dump sites (e.g., in-situ closure, removal, etc.), considering aspects such as technologies, operating methods, location and the neighborhoods (markets, schools, health clinics) or method of rehabilitation of existing ones (including the need for dealing with existing environmental liabilities), etc. During conduct of ESIAs, there is need to assess potential indirect and cumulative impacts/risks due to numerous and various types of subprojects. The project should sequence the construction of the new waste landfills in such way that the closure of the existing dumps sites does not cause additional stress on the existing Dar Es Salaam waste management system. Locations of the new landfills and transfer stations should first be properly identified. Sitting options should be discussed in the ESIA as part of the analysis of alternatives.

### Project Construction Phase

The following section presents the potential environmental impacts that the DMDP II project might generate according to the agreed subcomponents and activities to be supported (investments).

#### Negative Impacts and Risks

#### 

##### -Impact to Biodiversity

Construction of culverts-bridges and roads, cement plant, camp areas and solid waste management facilities may potentially disturb aquatic habitats by increasing water pollution and affecting nitrate concentration, oxygen concentration, water turbidity, among other parameters. Some sensitive and important habitats exist in the DMDP II sites such as water bodies where the urban drains discharge the water collected, existing native vegetation which are important habitat for migratory birds, amphibians and fish species. However, construction activities are not likely to have any direct impact on terrestrial or aquatic wildlife or their habitat since no sensitive ecological hot spots have been identified at this ESMF stage. However, any accidental leakage, spillage of contaminants, or dumping of solid waste/debris on land or in water bodies can potentially affect these habitats. These can cause injuries and even fatalities to these species.

Construction activities can also unnecessarily destroy, scar, or deface the natural surroundings in the vicinity of the construction site. Dust will be generated during earthwork and deposited on the leaves of nearby trees; this will obstruct the growth of trees. Construction activities will increase sediment loading of streams and changes in turbidity will impact adversely upon fishes and aquatic animals. Diversion at bridge site will act as barriers to the migration of fishes and aquatic animals. Noise generation from the construction vehicles and equipment can create disturbance for birds and wildlife in the project areas.

Assessment of impacts and preparation of measures to reduce/avoid impacts to biodiversity shall be guided by the requirements stipulated in the World Bank’s ESS1 ESS3 and ESS6.

.

The following generic E&S mitigation measures are suggested to be customized as appropriate:

* Careful route selection and siting of all project components, with advice from biodiversity authorities/wildlife specialists.
* Wherever feasible, establishment of buffer zones around conservation areas, watercourses, and other locations identified as ecologically sensitive and avoidance or minimisation 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.
* Sensitive planning of road alignments.
* Wildlife crossings for terrestrial animals, and design of culverts/ crossing structures to avoid impacts on animal movement.
* Construction impacts on habitats and species (e.g. from changes in drainage, soil erosion, pollution of water, soils or air, introduction of invasive species, and general human disturbance), including in sensitive areas where development cannot be avoided may be mitigated using the following measures: 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.
* Invasive Species Management Plan, which should be developed and implemented in consultation with authorities, including appropriate eradication measures for different species/groups of species.
* Staff training and awareness raising in communities.
* No introduction of exotic species (e.g. for site rehabilitation) without specialist vetting and government approval.

##### Impact on Land

Contractors’ camps can cause land encroachment and pollution in the neighbourhood from mismanaged solid and liquid waste from the camp. Contractors’ camps should be small sized only to include areas for eating, hygiene and sanitation, storage of belongings, etc.

Construction camps should be located in areas approved by the Engineers and the Environmental Management Officers (EMOs) for the respective LGAs. There are also impacts due to primary material suppliers operations for the project (gravel, soil, etc). These shall be managed through E&S due diligence undertaken as part of the procurement process for such materials, ensuring they are operating in compliance with relevant National Statutory requirements and applicable ESSs. Assessment of impacts and preparation of measures to reduce/avoid impacts shall be guided by the requirements stipulated in the World Bank’s ESS1 and ESS3.

##### Impact to Air Quality

Activities of Component 1: the construction of feeder and local roads (sub-component 1.1), storm-water drainage infrastructure (sub-component 1.2), parks and open spaces (sub-component 1.3), and area based urban development sub-component 1.4). and activities of Component 2: (i) construction of new landfills; (ii) closure of dumpsites considering feasible options for solar energy production or landfill gas capture; (ii) construction of transfer stations; (iii) construction of recycling, composting or other waste treatment systems and financing of programs to support them; will include pedestrian walkways, streetlights and earthworks for wetland might generate emissions from excavation equipment, other machinery and construction traffic. The emissions may also include greenhouse gases (GHGs) from engine fuel combustion (exhaust emissions) and evaporation and leaks from vehicles (fugitive emissions) and emissions from asphalt works. The emissions from construction activities will deteriorate the ambient air quality and affect the public health. The densely populated urban settlement areas are particularly vulnerable to these impacts. In addition, dust generated from the above activities will also have impacts on people in the project’s surrounding communities.

Assessment of impacts and preparation of measures to reduce/avoid impacts to air quality shall be guided by the requirements stipulated in the World Bank’s ESS1 and ESS3. The following generic E&S mitigation measures are suggested to be customized as appropriate:

* Sensitive local route selection and siting of construction facilities.
* Dust control and suppression measures.
* Modern equipment with meeting appropriate emissions standards, and regular preventative maintenance.
* No use of ozone depleting substances during construction.
* Speed controls and other traffic calming measures to reduce excessive acceleration around towns.

##### Noise and Vibration Impacts

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). This may be managed through the use of the following mitigation measures:

* Sensitive local route selection, grading of inclines, etc. and siting 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.

##### Impact to Water Quality and Resource Utilization (Water, Energy)

During the construction phase activities can potentially cause some localized increase in water turbidity to streams and rivers and entail use of water and energy. Surface water can be polluted when it receives groundwater or surface runoff contaminated with leachate from landfill areas. However, increase in turbidity is not likely to have any significant impact on overall water quality and the aquatic fauna primarily because of its temporary and localized nature. The construction camps and other site facilities such as offices and warehouses will also generate waste effluents. Other possible causes of land or water contamination include accidental leakage or spillage of fuels, oils, and other chemicals, as well as waste effluents released from construction sites. These effluents can potentially contaminate the drinking water sources of the area and can also be harmful for the natural vegetation, water bodies, and aquatic flora and fauna.

Assessment of impacts and preparation of measures to reduce/avoid impacts to water quality shall be guided by the requirements stipulated in the World Bank’s ESS1 and ESS3. The following generic E&S mitigation measures are suggested to be customized as appropriate:

* Installation of sewage treatment to meet required standards; hygiene training for workforce.
* Materials handling and control procedures..
* Control of construction vehicle movements and prohibition of vehicle washing in watercourses, and similar practices.
* Emergency response plans during construction (contractors and local authorities) and operation (local authorities).

##### Impact to Soil

Soils in the construction area will be prone to pollution in a similar manner to water pollution from the construction activities, construction sites, workers camps and other construction areas. Fuel and hazardous material storage sites and their handling are also potential sources for soil and water pollution. Improper siting, storage and handling of fuels, lubricants, chemicals and hazardous materials, and potential spills from these will severely impact the soil and water quality and also cause safety and health hazards.

Solid waste generated during the construction phase will include excess construction materials such as sand and soil, damaged parts, metal scraps, cardboard boxes and containers and cotton swaths from workshops and waste from construction offices and camps. Furthermore, small quantities of hazardous waste will also be generated mainly from the vehicle maintenance activities (liquid fuels; lubricants, hydraulic oils; machine/engine filter cartridges; oily rags, spent filters, contaminated soil, and others). It is important that such waste is responsibly disposed to avoid adverse environmental, human health and aesthetic impacts. Inappropriate disposal of these wastes can lead to soil and water contamination as well as health hazards for the local communities, livestock, and aquatic as well as terrestrial fauna.

During construction, soil organic layer will be removed and during raining periods runoff will carry sediments to streams and houses entrances. Other aggregates such as sand, base and other materials will cause erosion and siltation issues. Also, after the completion of the construction activities, construction material, debris, spoils, scraps and other wastes from workshops, and camp sites can potentially create hazards and hindrances for the local communities in addition to blocking natural drainage and or irrigation channels.

Assessment of impacts and preparation of measures to reduce/avoid impacts to soil shall be guided by the requirements stipulated in the World Bank’s ESS1 and ESS3. The following generic E&S mitigation measures are suggested to be customized as appropriate:

* 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 authorised contractors for hazardous and any other wastes which the project cannot dispose of safely.
* Minimisation of cleared areas and soil disturbance, with revegetation as soon as feasible, with native species.
* No vehicle use to be used outside designated areas.
* Early installation and regular maintenance of drainage and diversion structures, silt traps, etc; drainage outlets to discharge into vegetated areas if possible; vegetation along watercourses and drainage lines to be retained if possible.
* Avoidance of areas liable to flooding, slope instability, and water crossings where possible.
* Retention of topsoil for restoration (including tilling and revegetation) as soon as practicable.
* Restrictions on work and other activities around waterbodies (e.g. vehicle washing), and minimisation measures around water crossings where this not possible.
* Careful design: e.g. alignment, minimal diversion, timing of works (overall duration and seasonality)

##### Cultural Heritage

Displacement or damage to cultural heritage sites by construction activities, harm to the setting, amenity value, etc. of the site due to road construction or operation. This can be managed though use of the following measures:

* Careful route selection 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.

### Project Operation Phase

#### Positive Impacts

Improved traffic signalization, availability of pedestrian footways, and improved road features (roundabouts, and so on) will reduce the risk of road user hazards. Traffic flow may be fast and result in accidents. Upgrading of health facilities, bus stands, markets e.t.c shall improve communities’ access to the services.

#### Negative Impacts

Potential environmental impacts are listed under Table 4.1 and shall further be considered in Contractor’s ESIAs while taking into consideration guidance provided in the following, as applicable: WB EHSG for Waste Management Facilities, WB EHSG for Health Care Facilities, WB EHSG for Toll roads, WB EHSG for Water Supply and Wastewater, WB Good Practice Note on Dam Safety.

A summary of operation phase environmental impacts and risks include the following, among others: Noise and Odor, Contamination of ground water from leachate, Soil contamination and risk of biological uptake of toxic chemicals (e.g. heavy metals), Occupational health and safety of workers, Traffic congestion, Smoke from open burning of uncollected waste, Loss of employment, Littering and waste clogging drains, Illegal dumping, decreased property values, Exposure to Hazardous Substances, Waterborne diseases, Equipment damage, Safety concerns, Lack of residents cooperation with collection systems. These are further elaborated below.

##### Impact to Air Quality

Emissions from local roads’ traffic along the residential areas, public institutions and other infrastructures may affect the ambient air quality. Road traffic will be increased due to improvement of these infrastructures in the project areas. Assessment of impacts and preparation of measures to reduce/avoid impacts to air quality shall be guided by the requirements stipulated in the World Bank’s ESS1 and ESS3.

##### Impact to Water Quality

Increased paved roads shall increase the amount of impermeable surface area, which increases the rate of surface water runoff. Increased storm water flow rates can lead to streams’ erosion and flooding downstream, cause soil erosion, channel modification and siltation of streams. During the operation phase, some localized increase in turbidity may take place during any maintenance works of the constructed infrastructure. Similarly, maintenance works can also generate some quantity of waste effluents.

Storm drains also receive domestic wastewater, which causes unwanted deterioration of the storm water discharges. Wastewater discharges from schools, health clinics and markets, including leachate from landfills and waste operations will pose negative impacts on the surrounding environments.

Assessment of impacts and preparation of management measures to be included in the ESMPs shall conform to the requirements of World Bank’s ESS1 and ESS3, and WBG EHSGs, listed above.

##### Impacts from Solid Waste Management

Remaining construction materials may be washed away by the rain into the water sources and lead to sedimentation and increase turbidity. Solid waste will be generated from recreational places, markets and other amenities and also during regular operation and maintenance activities of the constructed infrastructures. Hazardous waste will also be generated from access road maintenance. This waste if not appropriately disposed has a potential to contaminate soil and water resources, thus negatively affecting communities as well as natural habitat.

Assessment of impacts and preparation of management measures to be included in the ESMPs shall conform to the requirements of World Bank’s ESS1 and ESS3.

##### Impact from Solid Waste Management Facilities

###### Management of Solid Waste Facilities will follow and make use of guidance provided in the WB EHSG General Guidelines and those for Waste Management Facilities. The applicability of the EHS Guidelines should be tailored to the hazards and risks established for each subproject on the basis of the results of an environmental assessment in which site-specific variables, such as local context, assimilative capacity of the environment, and other project factors, are taken into account. The EHS Guidelines for Waste Management cover facilities or projects dedicated to the management of municipal solid waste and industrial waste, including waste collection and transport; waste receipt, unloading, processing, and storage; landfill disposal; physico-chemical and biological treatment; and incineration projects. Industry-specific waste management activities applicable, for example, to medical waste, municipal sewage, cement kilns, and others are covered in the relevant industry-sector EHS Guidelines, as is the minimization and reuse of waste at the source, requiring consideration and use of EHSGs for Health Care facilities.

###### **The Site Design and Location of Solid Waste Facilities**

Facilities like collection point, transfer stations, recycling centers, and landfill can have significant impacts on the environment. Below are some of the key impacts associated with site design and location:

* Environmental Impact:
* Air Quality:
* Water Contamination:

Landfill Siting will be guided by the following factors lsited in the WB EHSGs for Waste Management Facilities, taking into account potential impacts associated with releases of polluting substances including the following:

* ***Proximity to residential, recreation, agricultural, natural protected areas, or wildlife habitat*** and areas prone to scavenging wildlife, as well as other potentially incompatible land uses; Residential development should be typically further than 250 meters from the perimeter of the proposed landfill cell development to minimize the potential for migration of underground gaseous emissions; Visual impacts should be minimized by evaluating locational alternatives; Siting should be further than 3 km of a turbojet airport and 1.6 km of a piston-type airport or as permitted by the aviation authority fully considering potential threats to air safety due to attraction and presence of birds;
* ***Proximity and use of groundwater and surface water resources;*** Private or public drinking, irrigation, or livestock water supply wells located downgradient of the landfill boundaries should be further than 500 meters from the site perimeter, unless alternative water supply sources are readily and economically available and their development is acceptable to regulatory authorities and local communities o Areas within the landfill boundaries should be located outside of the 10-year groundwater recharge area for existing or pending water supply development; Perennial stream should not be located within 300 meters downgradient of the proposed landfill cell development, unless diversion, culverting or channeling is economically and environmentally feasible to protect the stream from potential contamination.
* ***Site geology and hydrogeology;*** Landfills should be located in gently sloped topography, amenable to development using the cell (bund) method), with slopes which minimize the need for earthmoving to obtain the correct leachate drainage slope of about 2%; Groundwater's seasonally high table level (i.e., 10 year high) should be at least 1.5 meters below the proposed base of any excavation or site preparation to enable landfill cell development; Suitable soil cover material should be available on-site to meet the needs for intermediate (minimum of 30 cm depth) and final cover (minimum of 60 cm depth), as well as bund construction (for the cell method of landfill operation). Preferably, the site would have adequate soil to also meet required cover needs (usually a minimum of 15 cm depth of soil).
* ***Potential threats to landfill site integrity from natural hazards such as floods, landslides, and earthquakes:*** Landfills should be sited outside of a floodplain subject to 10-year floods and, if within areas subject to a 100- year flood, amenable to an economic design which would eliminate the potential for washout; There should be no significant seismic risk within the region of the landfill which could cause destruction of berms, drains or other civil works, or require unnecessarily costly engineering measures; otherwise, side slopes should be adjusted accordingly to prevent failure in the event of seismic activity; No fault lines or significantly fractured geologic structure should be present within 500 meters of the perimeter of the proposed landfill cell development which would allow unpredictable movement of gas or leachate; There should be no underlying limestone, carbonate, fissured or other porous rock formations which would be incompetent as barriers to leachate and gas migration, where the formations are more than 1.5 meter in thickness and present as the uppermost geologic unit above sensitive groundwaters.

Assessment of impacts and preparation of measures to reduce/avoid impacts resulting from design and sitting of solid waste management facilities shall be guided by the requirements stipulated in the World Bank’s ESS1, ESS3, .

###### Solid Waste Handling and Storage

This can have several impacts on the environment. Here are some of the key impacts associated with solid waste handling and storage:

Air Pollution: Improper handling and storage of solid waste can lead to the emission of air pollutants such as methane, Methane is a potent greenhouse gas that contributes to climate change, health, causing respiratory problems and other illnesses. Include landfill gas collection system designed and operated in accordance with applicable national requirements and recognized international standards including recovery and pre-use processing or thermal destruction through an efficient flaring facility. It is recommended to prevent condensation from accumulating in extraction systems by arranging the pipe work to fall to a removal point such as a knock out-pot. Use landfill gas as fuel if practical, or treat before discharge (e.g., by using enclosed flare or thermal oxidation if methane content is less than about 3 percent by volume). It is also recommended to use gas blowers (boosters) of sufficient capacity for the predicted gas yield and constructed of materials appropriate for landfill gas duty; blowers should be protected by flame arrestors at both gas inlet and outlet. Finally, it is recommended to install and regularly sample boreholes surrounding the landfill to monitor for migration of landfill gas.

Recommended methods to control dust and odor emissions include the following: · Compact and cover waste promptly after discharge from the vehicle delivering the waste; Minimize open tipping face area; Dispose of odorous sludge in covered trenches; Restrict acceptance of loads known to be particularly odorous; Restrict tipping activities during periods of adverse weather (e.g., wind toward sensitive receptors); Seal sump covers; and Aerate leachate storage areas.

Water Contamination: Inadequate waste handling and storage practices can result in the leaching of pollutants into soil and groundwater. Harmful chemicals, heavy metals, and hazardous substances present in solid waste can contaminate water sources, posing risks to ecosystems, drinking water supplies, and aquatic life.

Soil Degradation: Improper disposal and storage of solid waste can lead to soil degradation. Contaminants present in waste can adversely affect soil quality, reducing its fertility and ability to support plant growth. This can have long-term impacts on agricultural productivity and ecosystem health.

Greenhouse Gas Emissions: When organic waste decomposes in landfills or other storage areas without proper management, it produces methane, a potent greenhouse gas. Methane contributes to climate change and exacerbates global warming.

Other aspects which need to be managed closely during the operation phase, include but not limited to the following:

***Leachate Generation:*** The following measures are recommended to prevent, minimize, and control leachate generation from MSW landfills: ·

* Site landfills in areas with stable geology and avoid siting near particularly vulnerable or sensitive ecosystems and groundwater and surface water resources;
* Design and operate the landfill in accordance with applicable national requirements and internationally recognized standards to minimize leachate generation, including the use of low-permeability landfill liners to prevent migration of leachate as well as landfill gas, a leachate drainage and collection system, and landfill cover (daily, intermediate, and final) to minimize infiltration;
* Treat leachate onsite and/or discharge to municipal wastewater system. Potential treatment methods include aerated lagoons, activated sludge, anaerobic digestion, artificial wetlands, re-circulation, membrane filtration, ozone treatment, peat beds, sand filters, and methane stripping;
* Minimize the daily exposed working face and use perimeter drains and landfill cell compaction, slopes and daily cover materials to reduce infiltration of rainfall into the deposited waste;
* Prevent run-on of precipitation into the active area of the landfill (e.g., by use of berms or other diversions); systems should be designed to handle the peak discharge from a 25-year storm;
* Collect and control run-off from the active area of the landfill; the system should be designed to handle the discharge from a 24-hour, 25-year storm. Runoff is typically treated together with leachate from the site.

***Groundwater and Leachate Monitoring***: Recommended measures for groundwater and leachate monitoring include the following:

* Measure and record the quantity and quality of leachate generated. Changes in leachate quantity or quality not attributable to weather or other factors may indicate changes in the liner, leachate collection, or landfill cover systems;
* Install groundwater monitoring wells outside the landfill perimeter at locations and depths sufficient to evaluate whether leachate is migrating from the landfill into the uppermost groundwater unit. This groundwater monitoring network should usually include, at a minimum, one monitoring well located in the upgradient groundwater flow direction from the landfill and two monitoring wells located in the down gradient direction. The groundwater monitoring system should be consistent with applicable national regulations and internationally recognized standards.
* Regularly sample the monitoring wells and analyze for constituents, selected based on: The types, quantities, and concentrations of constituents in wastes managed in the landfill; The mobility, stability, and persistence of waste constituents their reaction products in the unsaturated zone beneath the waste management area; The detectability of indicator parameters, waste constituents, and reaction products in ground water; and The constituent concentrations in the groundwater background.

***Litter Management:*** The following measures are recommended to prevent, minimize, and control dispersal of litter:

* Avoid siting of facilities in particularly exposed, windy areas;
* Provide perimeter planting, landscaping, or fences to reduce wind;
* Pin waste by use of dozers and landfill compactors immediately after discharge from the vehicles delivering the waste;
* Use soil or artificial cover materials so that deposited waste is held in place. More frequent application of cover may be required during high winds or in exposed areas;
* Use scaring techniques or natural predators to control scavenging birds;
* Provide an emergency tipping area/foul weather cell for lightweight wastes such as paper;
* Construct temporary banks and bunds immediately adjacent to the tipping area, install strategically placed mobile catch fences close to the tipping area or on the nearest downwind crest, and/or fully enclose of the tipping area within a mobile litter net system;
* Install wind fencing upwind of the tipping area to reduce the wind strength as it crosses the facility;
* Temporarily close the facility to specific or all waste or vehicle types when weather conditions are particularly adverse.

***Closure and Post-Closure:*** Landfill facility operators should plan for the closure and post closure care of the facility. Such planning should take place as early as possible in the project cycle so that potential closure and post-closure issues are incorporated in the financial and technical planning. Closure and post-closure planning activities should include the following elements:

* Development of a closure plan which specifies the necessary environmental objectives and controls (including technical specifications), future landuse (as defined in consultation with local communities and government agencies), closure schedule, financial resources, and monitoring arrangements;
* Evaluation, selection, and application of closure methods consistent with post- closure use and which should include the placement of a final cover to prevent further impacts to human health and the environment;
* Application of final cover components that are consistent with post closure use and local climatic conditions. The final cover should provide long term environmental protection by preventing direct or indirect contact of living organisms with the waste materials and their constituents; minimize infiltration of precipitation into the waste and the subsequent generation of leachate; control landfill gas migration; and minimize long term maintenance needs.
* Financial instruments in place to cover the costs of closure and post-closure care and monitoring.

***Industrial Hazardous Waste:***

Hazardous wastes may be so defined because they share the properties of a hazardous material (e.g. ignitability, corrosivity, reactivity, or toxicity), or other physical, chemical, or biological characteristics which may pose a potential risk to human health or the environment if improperly managed. The Municipal Waste Management Sites are not designed to handle such wastes and should not be allowed to be disposed of there. The respective LGAs shall be required to institute monitoring measures to avoid such waste being delivered to the sites, including undertaking follow-up investigations of incidents when such waste may be delivered at the Landfill/s.

Contractor’s Assessment of subprojects impacts and preparation of measures to reduce/avoid impacts resulting from solid waste handling shall be guided by the requirements stipulated in the World Bank’s ESS1 and ESS3.

###### Impact of Solid Waste Transfer Stations

Air Pollution: Transfer stations can generate air pollution through the emission of dust, odors, and vehicle exhaust. These emissions can have negative health effects on nearby residents and workers if not controlled through appropriate measures such as dust suppression systems and proper waste handling techniques.

Water Contamination: Improper handling of solid waste at transfer stations can lead to water contamination if pollutants, such as chemicals or hazardous substances, are not contained or managed correctly. Proper containment measures and wastewater treatment systems are essential to prevent contamination of nearby water bodies.

Assessment of impacts and preparation of measures to reduce/avoid impacts resulting from transfer stations shall be guided by the requirements stipulated in the World Bank’s ESS1 and ESS3.

###### Impact of Solid Waste Collection and Transportation

Inadequate practices in solid waste collection and transportation can have significant impacts on the environment. Three specific impacts are littering and illegal dumping:

* Littering: Improperly collected or poorly secured solid waste can result in littering. When waste collection vehicles are not properly covered or secured, wind or other factors can cause waste to scatter along collection routes. Littered waste can end up in streets, parks, water bodies, and other public spaces. Littering not only contributes to visual pollution but also poses risks to wildlife, ecosystems, and public health.
* Air Pollution: Solid vehicles emit pollutants such as nitrogen oxides (NOx), carbon monoxide (CO), volatile organic compounds (VOCs), and particulate matter (PM) during combustion. These pollutants contribute to air pollution and are associated with respiratory diseases, smog formation, and climate change.
* Greenhouse Gas Emissions: Solid vehicles are a major source of carbon dioxide (CO2) emissions, a greenhouse gas responsible for global warming and climate change. The combustion of fossil fuels in these vehicles releases CO2 into the atmosphere, contributing to the greenhouse effect.

Assessment of impacts and preparation of measures to reduce/avoid impacts resulting from solid waste collection and transportation shall be guided by the requirements stipulated in the World Bank’s ESS1 and ESS3.

Bottom of Form

###### Landfill/Disposal Siting Facilities

The siting and operation of landfills can have significant environmental impacts. Here below are some key points regarding these impacts:

* *Air Pollution:* Landfills can release various gases, including methane and volatile organic compounds, which contribute to air pollution and odors. These emissions can have adverse effects on air quality and human health.
* *Water Contamination:* Improperly managed disposal/landfills sites can contaminate groundwater and surface water with hazardous substances, leachate, and other pollutants. This contamination can affect drinking water sources and other aquatic ecosystems. Litter can be carried by wind or rainwater runoff into nearby water bodies, leading to water pollution. Plastics and other non-biodegradable materials can persist in the environment for a long time, causing harm to aquatic organisms and ecosystems.
* *Soil Degradation*: Improperly constructed or managed disposal/landfills sites can lead to soil degradation due to the deposition of solid waste and leachate. This can affect soil fertility and the ability of the land to support vegetation and agricultural activities.

Assessment of impacts and preparation of measures to reduce/avoid impacts resulting from design and sitting of solid waste management facilities shall be guided by the requirements stipulated in the World Bank’s ESS1 and ESS3.

## Potential Social Impacts during Project Phases

### Project Siting/Planning Phase

#### Positive Impacts

##### Risks Management

Enables evidence-based identification of risks, and of risk controls that are logical, predictable, and effective, thereby reducing uncertainty during designs. Design Consultants should be guided by local and international design standards as required by ESS1, ESS2, ESS4, ESS5, and ESS10.

#### Negative Impacts

##### Impacts associated with involuntary resettlement

DMDP II will ensure avoidance of involuntary resettlement and avoid any physical displacement of residents for activities under the project. Most of the works in targeted unplanned settlements will be entail upgrade of existing substandard project’s roads and unlined stormwater drains. Construction of other project’s infrastructure i.e. markets, bus stand, health facilities shall be done on land parcels for existing facilities. Solid waste management facilities/infrastructure are likely to involve acquisition of private lands/dwellings as well as economic or livelihood assets in some areas.

Therefore, ESS5 on involuntary resettlement is relevant to the project and a Resettlement Policy Framework (RPF) has been prepared for DMDP II. Site-specific Resettlement Action Plans (RAPs)/Due Diligence Reports (DDRs)/Temporary Relocation Plans (TRPs) will be developed if and as necessary during the project implementation. The RPF and any RAP will ensure the proper calculation and recording of the involuntary displacement impacts as well as identification of the affected people and mitigation of their losses and impacts. The purpose of the RPF and implementation of the RAPs is to ensure that there are no adverse effects on the living conditions and livelihoods of the affected people as a result of the project. The costing of RAPs will be covered with funding from the Government of the United Republic of Tanzania(URT).

##### Compliance with Local and International Engineering Standards and Guidelines

Failure to comply with stipulated standards and guidelines will amount to noncompliance with detrimental occupational, and social effects. Design of infrastructures shall observe the requirements of ESS2 and ESS4.

##### Exclusion of Gender, Disability and Children Considerations in Design

There may be a tendency to ignore the special needs of women, the disabled, and children in the design. The design of markets, bus stand, health facilities shall observe the requirements of ESS4.

### Project Construction Phase

The following section presents the potential social impacts that the DMDP II project might generate according to the agreed subcomponents and activities to be supported (investments).

#### Positive Impacts

##### Impact on Employment

Sub-projects under DMDP II will also generate positive impacts when providing employment to a significant number of labor force during construction. The majority of labor will be locally hired, with the exception of skilled workers who may not be found in the project site areas. It is expected that at least 30% de of the workforce will be women so they can benefit from the project the same as men.

LMP has been prepared to minimize the risk associated with labor during implementation of DMDP II as stipulated in ESS2.

#### Negative Impacts

##### Air Pollution

Dust pollution in the construction sites is a health hazard for the workers and surrounding communities during dismantling works in preparation of project activities. In managing air pollution impacts ESMPs for subprojects shall include measures required under ESS3 and ESS4.

##### Increased Noise and Vibration

Noise levels and vibration will tend to increase during construction of the project with effects to project workers and communities surrounding of the project area. In managing noise and vibration impacts ESMPs for subprojects shall include measures required under ESS3.

##### Impacts on Local Livelihoods

The project is likely to cause impacts on income and livelihoods, the project will try to avoid acquisition of land and involuntary displacement of people. A detailed examination to identify key groups that will be affected by the project should be done, these could be women food vendors, waste pickers, metal fabricators. These may in one way or another see their livelihood affected.

Baseline socio-economic data will be collected in order to ensure restoration of livelihoods and to monitor implementation of mitigation measures. The potential for indirect and/or cumulative social impacts should be assessed as part of the ESIA.

For existing facilities that are to be rehabilitated, details of the process of temporary relocation, any compensation for the temporary loss of income due to relocation, registering traders and their interest in relocating to the new facility following the completion of the upgrade and a fair and transparent procedures for assigning spaces to traders and other operators will be needed and will be covered by the RAP/TRP. This process will be established in consultation with the identified PAPs. The RAP/TRP will need to explicitly describe how vulnerable women (pregnant women, women with young children) were consulted and how any needs related to security, sanitation and assignment of stalls were addressed.

Measures to manage impacts on the local livelihoods shall follow the requirements of RPF prepared under the guidance of ESS5.

##### Impacts on Vulnerable Individuals

Disabled people, old, women and children often face barriers to ensuring effective access to and use of facilities. Women and children are especially exposed to the risks arising from construction and to being disadvantaged during the reassignment of trading spaces during rehabilitation of facilities. Women constitute a large proportion of traders at markets and other facilities to be supported under DMDP II. Since the project is associated with GBV, risk assessment tool and measures to address risks associated with safety, security and harassment including gender-based violence (GBV) are needed.

Project design will need to take into consideration accessibility for all potential users, including disabled people, the old, women and children. Special attention should be paid to ensuring women and children have equal access to benefits and safety and security. In order to limit the risk of GBV and human trafficking, a code of conduct should be in place which addresses GBV. Should GBV risks become apparent during preparation, procurement and implementation of the DMDP II, mitigations measures should be escalated, such as by hiring specialist GBV advisors or service providers.

Analysis of gender inequalities which is part of the ESCP should be based on: the identification and management of the potential for increased vulnerability of women or men caused by the project; their ability to take advantage of project benefits and opportunities, including employment and; the need to include them in the information disclosure, consultation and grievance redress process in a meaningful way. DMDP II preparation should identify opportunities to incorporate inclusivity measures in the project design if risks and impacts relevant to gender equality have been identified as part of potential project impacts.

In relation to GBV, the DMDP II will:

* Identify and assess the risks of GBV, including through the conduct of social and capacity assessments, and measures for their mitigation, and include them in the ESIAs/ESMP and CESMP, in accordance with the guidance provided in the based on the World Bank’s note “Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) in Investment Project Financing involving Major Civil Works”;
* Establish GBV risk assessment as a continuous process to be carried out as part of DMDP II preparation, procurement and implementation proceeds;
* Ensure that the Contactors include appropriate mitigation actions in their bid and implementation plans;
* Implement the appropriate GBV risk mitigation and monitoring measures on an ongoing basis during project implementation; and
* Responding to any identified GBV incidents, provide for M&E, report incidents and to monitor follow up.

The social management strategy should, as relevant, address GBV actions, Code of Conduct, public consultation, employment creation opportunities, minimizing social disturbance, GRM, HIV/AIDs and GBV training and awareness as required by ESS6.

##### Child Labor and Abuse

Children and students within the project area may end up involved in wage labor activities for example, fulfilling various construction activities, petty trading and vending. This situation will potentially increase truancy and school drop-outs especially for schools that are located along roads and airports’ subprojects. Involvement of child labor in food vending and other activities related to services provided to project staff by local community members could also occur. This problem can result in high rates of truancy and involvement of children in sexual relationships due to their undue interactions with construction workers associated with the projects. Cumulatively, this will affect education attainment especially for girls who are mostly vulnerable, exacerbate unwanted and/or early pregnancies etc.

Assessment of impacts and preparation of management measures to be included in the LMP, which will include a code of conduct for project workers, GRMs, and community engagement, operationalized in the ESMPs, which shall conform to the requirements of World Bank’s ESS2, ESS4, and ESS10, among others, as applicable.

##### Occupational Health and Safety Impacts

Workers will be exposed to health and safety hazards for example during welding, placing asphalt and road bases, scaffolding works, excavations, manipulating hazardous substances, lifting and handling of heavy equipment, operating machinery and electrical equipment, working near water or at height, etc. The Project will need fuels, oils, and asphalt during the construction phase. Inappropriate handling or accidental spillage/leakage of these substances can potentially lead to safety and health hazards for the construction workers as well as the local community. Workers can also be exposed to inadequate, health and first aid, insurance and clean and safe drinking water and transportation to the project sites.

Potential risks associated with hired skilled and non-skilled workers especially during construction period includes health hazards, poor living condition, accidental hazards risks, etc. Hiring labor from external areas may cause social risk on the local communities including gender-based violence, price hiking of commodities prices etc. Substantial risks are associated with hiring child labor or forced labor.

Through resident engineers, the PO-RALG-WBCU and LGAs Environmental and Social Teams are responsible to ensure the safety and health of workers and a treatment as regulated by the national legislation as well as World Bank’s ESS2, including implementation of OHS measures in subprojects ESMPs and Contractors’ ESMPs.

In line with the WBG EHSG – General, the project will through subprojects ESIAs, include OHS measures in their respective ESMPs. These preventive and protective measures should be introduced according to the following order of priority:

* Eliminating the hazard by removing the activity from the work process.
* Controlling the hazard at its source through use of engineering controls.
* Minimizing the hazard through design of safe work systems and administrative or institutional control measures. Examples include job rotation, training safe work procedures, lock-out and tag-out, workplace monitoring, limiting exposure or work duration, etc.
* Providing appropriate personal protective equipment (PPE) in conjunction with training, use, and maintenance of the PPE.

Occupational health and safety impacts during the construction and decommissioning of waste management facilities are common to other large industrial projects and are addressed in the General EHS Guidelines. The most significant occupational health and safety impacts typically associated with workers at waste management facilities occur during the operational phase and include:

* Accidents and injuries;
* Chemical exposure;
* Exposure to pathogens and vectors.

Occupational health and safety performance should be evaluated against internationally published exposure guidelines, of which examples include the Threshold Limit Value (TLV®) occupational exposure guidelines and Biological Exposure.

Occupational health and safety issues associated with the construction and operation of roads primarily include the following: ·

* ***Physical hazards*** · principally from operating machinery and moving vehicles but also working at elevation on bridges and overpasses. Other physical hazards (e.g. exposure to weather elements, noise, work in confined spaces, trenching, contact with overhead power lines, falls from machinery or structures, and risk of falling objects). ***Management practices to prevent and control physical hazards include:*** *Development of a transportation management plan for road repairs that includes measures to ensure work zone safety for construction workers and the traveling public; Establishment of work zones to separate workers on foot from traffic and equipment; Reduction of maximum vehicle speeds in work zones; Training of workers in safety issues related to their activities; The area around which elevated work is taking place should be barricaded to prevent unauthorized access; including other measures for* Elevated and Overhead Work and Fall Protection measures, *etc.*
* ***Chemical hazards ·*** in road construction, operations, and maintenance activities may be principally associated with exposures to dust during construction and paving activities; exhaust emissions from heavy equipment and motor vehicles during all construction and maintenance activities. *General recommendations for hazardous materials management and chemicals hazard management are provided in the General EHS Guidelines. These should be made use of when preparing Contractor’s ESIAs/ESMPs and the Contractors’ ESMPs.*
* ***Noise:*** Construction and maintenance personnel may be potentially exposed to extremely high levels of noise from heavy equipment operation and from working in proximity to vehicular traffic. As most of these noise sources cannot be prevented, *control measures should include the use of personal hearing protection by exposed personnel and implementation of work rotation programs to reduce cumulative exposure.*

##### Impacts to Community Health and Safety

One of the key potential risks associated with the infrastructure upgrade sub-projects is the increased risk of road accidents due to increased traffic of construction vehicles and congestion as a result of diversions. The risk is particularly higher for children where works are taking place near existing schools. Accidents can result in severe injuries including fatalities affecting both the community and workers. Excavations, open ditches and slope cutting over long periods can cause accidents to local resident. However, substantial road safety measures and facilities will be put in place under to minimize the accidents.

Some of the measures to address significant community health and safety issues associated with road projects may also include: (to be assessed in detail and included in the subprojects ESIAs and Contractors’ ESMPs):

* Infrastructure and Equipment Design and Safety: - *Government will design, construct, operate, and decommission the structural elements of the project in accordance with national legal requirements, the EHSGs and other GIIP, taking into consideration safety risks to third parties and affected communities. Structural elements of a project will be designed and constructed by competent professionals and certified or approved by competent authorities or professionals.*
* Safety of Services: - *The project will ensure proper management of services supported by the project, especially Waste disposal to avoid and/or mitigate impacts related to toxicity, waste dump collapse, or air pollution;*
* Pedestrian safety: - *Provision of safe corridors along the road alignment and construction areas; Installation of barriers (e.g. fencing, plantings) to deter pedestrian access to the roadway except at designated crossing points; installation and maintenance of speed control and traffic calming devices at pedestrian crossing areas.*
* Traffic and Road safety: - *Development and implementation of a Traffic Management Plan as part of the subprojects ESIA and Contractors’ ESMP, including measures such as installation and maintenance of all signs, signals, markings, and other devices used to regulate traffic, including posted speed limits, warnings of sharp turns, or other special road conditions;*
* Community exposure to Health Issues: - *the project shall put in place Standard Operating Procedures to avoid and/or reduce the risk of spreading contagious diseases in the host community;*
* Management and Safety of Hazardous Materials:- *Develop a Waste Management Plan, covering among others handling and disposal of hazardous materials during construction phase and O&M phase;*
* Emergency preparedness: *Emergency Response Plan shall be drawn as part of subprojects ESIAs and Contractors’ ESMPs to facilitate handling of community emergency cases caused by project operations.*

Noise will be generated by vehicular movement, construction machinery, concrete mixing, and other construction activities. The schools, religious places and health facilities areas are particularly vulnerable to the increased noise levels. No blasting activities will be allowed in the project in the project areas. All rocks conformations will be done using mechanical drilling means.

Contractors will be enforce to comply with the LMP and the ESMPs to be prepared for each subproject under DMDP II in the five (5) districts of Dar es Salaam shall comply to the requirements of World Bank’s ESS2 and ESS4.

Community health and safety issues related to the construction of waste management projects may include emissions from the solid wastes and construction site issues which are addressed in the General EHS Guidelines. Community health and safety impacts which occur during the operational and decommissioning phases of waste management facilities may include: General occupational and environmental health issues associated with waste scavenging; Physical, chemical, and biological hazards, Litter; Noise; Dust and odors. These can be managed as follows:

* Restrict access to waste management facilities by implementing security procedures, such as: Perimeter fencing of adequate height and suitable material, e.g. chain link, stock proof palisade; Lockable site access gate and buildings; Security cameras at key access points linked to recording equipment and remote access CCTV, where required; Security alarms fitted to buildings and storage areas; Review of site security measures annually or whenever a security breach is reported; Use of a site visitor register; and Immediate repair of fencing/access points if damaged; and Lighting of site during night time where necessary. As this may cause light nuisance to neighbors, the lighting installations should be selected to minimize ambient light pollution.
* Uncollected garbage and litter spread beyond the waste management facility boundaries by wind, vermin, and vehicles can directly spread disease; attract rats, flies, and other vectors; and expose the community to hazardous substances. Scavenging birds, such as gulls and crows, commonly congregate on landfill sites accepting household waste. They disturb newly tipped and partially covered waste whilst searching for food, and lead to complaints from adjoining residents and landowners about food scraps, excreta and other waste dropped away from the landfill. Litter control is addressed in Section above.
* Noise is typically generated by waste processing and treatment equipment as well as vehicular traffic on the site and bringing waste and materials to and from the facility. Sources of noise and abatement measures are addressed in Section above, and the General EHS Guideline. In addition, facility operators should coordinate hours of operation with adjacent land uses.
* Dust and odors from waste management facilities can be a nuisance to the neighboring community. Organic dust can also carry disease-causing microorganisms. Dust and odor controls are addressed in Section and in the General EHS Guidelines. In addition, the following measures are recommended to prevent, minimize, and control community exposure to dust and odors from waste management facilities: Provide adequate buffer area, such as hills, trees, or fences, between processing areas and potential receptors. Avoid siting facilities near densely populated neighborhoods and installations with potentially sensitive receptors, such as hospitals and schools. Site facilities downwind from potential receptors, if possible.

##### Labour Influx

The rapid migration to and settlement of workers can affect project areas negatively in terms of public infrastructure, utilities, housing, sustainable resource management and social dynamics. The influx of workers and followers can lead to adverse social and environmental impacts on local communities.

Assessment of impacts and preparation of management measures to be included in the ESMPs shall conform to the requirements of World Bank’s ESS4.

##### Impact to Archaeological/Historical/ Social/ Cultural/ Religious Sites

There may be some places of worship, graveyards or other cultural places in the proposed sub-projects’ sites which may be affected by project works. Should the ESIA process find such places, they will have to be relocated and will be included in the RAP prepared for the project. Chance-find Procedures will be included in the ESMP and chance-find clause will be included in works contracts requiring contractors to stop construction if cultural heritage phenomena are encountered during construction activities to coordinate with the relevant authority for the salvaging, restoration or other appropriate action of such cultural heritage.

Construction works may cause air and dust pollution to historical, social, cultural, religious sites. Noise levels may create discomfort for the local communities whereas vibration can also cause negative effects on social, cultural, religious sites.

Assessment and management of these impacts shall be guided by the World Bank’s ESS8.

##### Damages of Public Infrastructures

Construction activities will likely disrupt communities’ infrastructures such as water supply systems, electric poles, telephone lines, schools e.t.c. Such situations may lead to inconvenience to the surrounding communities in terms of carrying out their routine lifestyle due to disruption of facilities. This can potentially cause social conflicts and will affect smooth progress of works. Assessment of impacts and preparation of management measures to be included in the ESMPs shall conform to the requirements of World Bank’s ESS1, ESS4 and ESS10.

**Damages to Houses**

Construction activities will likely damage houses due to vibration impacts; prior to civil works contractors will be required to video recording all the houses/structures in their sites to establish baseline data that will be used to determine magnitude of impacts and compensation measures whether in cash or in-kind. The assessment of impact and management measures will be included in ESMP and C-ESMP.

### Project Operation Phase

#### Positive Impacts

Interventions to reduce traffic congestion through upgrading of roads will result in shorter traffic delays and reduced incidence of vehicle idling. This will improve air quality within these communities and also reduce the GHG effect on ozone depletion.

#### Negative Impacts

##### Community Health and Safety Impact

One of the key potential risks associated with the infrastructure upgrade of road sub-projects is the increased risk of road accidents due to increased traffic. However, substantial road safety measures and facilities will be put in place under to minimize the accidents.

Miscellaneous risks to the public in relation to vehicular traffic and unfamiliarity with traffic systems (for example, traffic lights), which could result in injuries and deaths.

In poorly drained areas, urban runoff mixes with sewage from overflowing latrines and sewers, causing pollution and a wide range of problems associated with waterborne diseases. Poor drainage of rainwater leads to the creation of breeding sites for disease vectors. Solid waste blocks the drainage system and creates flooding in the streets resulting in increase mosquitoes, bad odour, and inconvenience.

Disruption of traffic movement is also an impact which arises due to the traditional water logging problem created from improper drainage system. Due to inadequate drainage facilities, storm water cannot convey properly, as a result water logging is created in low-laying and flood prone areas. The logged water of rainfall seriously disrupts normal life and it has direct impacts on the poor inhabitants. Unsuitable drainage system traffic accident occurs when roads are submerged.

Assessment of impacts and preparation of management measures to be included in the O&M ESMPs shall conform to the requirements of World Bank’s ESS4, specifically taking into consideration the following aspects: Infrastructure and equipment design and safety, safety of services, traffic and road safety, community exposure to health issues, management and safety of hazardous materials and put in place Emergency Preparedness and Response measures as part of the O&M Plan. The O&M ESMP shall include OHS aspects assessed in line with requirements of ESS-2 and applicable WB EHSGs (Waste Management Facilities, Toll Roads, Health Care Facilities, etc. WB small dam guidance, WB guidance on life safety.

##### Noise Pollution

During operation, noise levels along the project’s roads will be increased due to the higher traffic volume and mass gatherings. Traffic noise will be a significant nuisance to the sensitive receptors such as schools, health centers and religious places located close to the roads and also to children and aged persons. Assessment of impacts and preparation of management measures to be included in the ESMPs shall conform to the requirements of World Bank’s ESS4.

##### Ribbon Development along the Roads

Once the roads are completed there are likely chances of growing ribbon developments. Apart from land-use and other social conflicts, this will cause congestions to road users and increased accident risks.

Good governance to discourage and/or remove such newly upcoming development along the roads shall be used in conjunction with the requirements of World Bank’s ESS3, ESS5 and ESS10

##### The Site Design and Location of Solid Waste Facilities

Facilities like collection point, transfer stations, recycling centers, and landfill can have significant impacts on the public health, and surrounding communities. Below are some of the key impacts associated with site design and location:

* Odor and Noise
* Visual Impact
* Traffic and Transportation:
* Community Health and Well-being
* Land Acquisition/Resettlement
* Smoke and Fire explosion
* Visual and scenic nuisance such as flies, rodents and other pests, litter
* Depressed land Value

Assessment of impacts and preparation of measures to reduce/avoid impacts resulting from transfer stations shall be guided by the requirements stipulated in the World Bank’s ESS1, ESS3, ESS4 and ESS10.

##### Solid Waste Handling and Storage

This can have several impacts on the public health, and overall quality of life. Here are some of the key impacts associated with solid waste handling and storage:

* Disease Transmission: Improperly managed solid waste can attract disease vectors such as flies, rodents, and stray animals, creating a breeding ground for pathogens. This increases the risk of disease transmission to humans, leading to outbreaks of vector-borne diseases like dengue fever, malaria, and leptospirosis.
* Aesthetic and Visual Impact: Improperly stored solid waste, especially if it is visible or not properly contained, can have a negative aesthetic impact on the surrounding area. Accumulated waste can create an eyesore, reduce property values, and deter tourism and economic development.
* Fire Hazard: If solid waste is not managed and stored appropriately, it can become a fire hazard. Waste fires release toxic fumes into the air, pose risks to human health, and can be challenging to extinguish, potentially causing damage to property and the environment.
* Dispersed solid waste from the illegal dumping often blocks the drains and sewers and ultimately these blockages are creating flooding and unhygienic conditions.
* Potential impacts due to the disposal of end of life/dysfunctional solar panels

Assessment of impacts and preparation of measures to reduce/avoid impacts resulting from transfer stations shall be guided by the requirements stipulated in the World Bank’s ESS1, ESS3, ESS4 and ESS10.

##### Impact of Solid Waste Transfer Stations

* Traffic Congestion: Transfer stations often receive large volumes of solid waste from collection vehicles, leading to increased traffic in the surrounding area. This can result in congestion, noise pollution, and potential safety hazards if not properly managed.
* Noise and Odor: Transfer stations can produce noise and odors due to the movement and storage of waste, particularly if waste is not properly covered or contained. These nuisances can impact the quality of life for nearby residents if not effectively mitigated.
* Aesthetic Impact: Transfer stations may have negative aesthetic impacts on the surrounding area, affecting property values and overall visual appeal. Implementing appropriate design elements, such as landscaping and architectural features, can help minimize these impacts.
* Employment and Economic Benefits: Transfer stations can create employment opportunities in solid waste management and related industries.

Assessment of impacts and preparation of measures to reduce/avoid impacts resulting from transfer stations shall be guided by the requirements stipulated in the World Bank’s ESS1, ESS3, ESS4 and ESS5

##### Impact of Solid Waste Collection and Transportation

Inadequate practices in solid waste collection and transportation can have significant impacts on the communities. Two specific impacts are littering and illegal dumping:

* Littering: Improperly collected or poorly secured solid waste can result in littering. When waste collection vehicles are not properly covered or secured, wind or other factors can cause waste to scatter along collection routes. Littered waste can end up in streets, parks, water bodies, and other public spaces. Littering not only contributes to visual pollution but also poses risks to wildlife, ecosystems, and public health.
* Illegal Dumping: Inadequate solid waste collection services or limited access to proper disposal facilities can lead to illegal dumping.
* Respiratory Issues: The air pollutants emitted by solid vehicles, including particulate matter and nitrogen oxides, can cause or worsen respiratory problems such as asthma, bronchitis, and other respiratory diseases.
* Noise Pollution: Solid vehicles, especially in densely populated areas, contribute to noise pollution, which can have detrimental effects on human health. Prolonged exposure to high noise levels can lead to stress, sleep disturbances, hearing problems, and impaired cognitive function.
* Littering of solid waste during transporting to disposal/landfill site

Assessment of impacts and preparation of measures to reduce/avoid impacts resulting from collection and transportation of solid waste shall be guided by the requirements stipulated in the World Bank’s ESS3 and ESS4.

Bottom of Form

##### Landfill/Disposal Siting Facilities

The siting and operation of landfills can have significant environmental, health and social impacts on surrounding communities. Here below are some key points regarding these impacts:

* Environmental Impact:
* *Wildlife Hazards:* Litter, especially plastic materials, can pose risks to wildlife. Animals may mistake litter for food or become entangled in it, leading to injuries, suffocation, or death.
* *Airborne Debris:* Wind can scatter lightweight litter from landfill sites, resulting in the dispersal of debris into surrounding areas. This can contribute to visual pollution, as well as potential risks to public health and safety if litter is blown onto roadways or infrastructure
* Health Impact:
* *Respiratory Issues:* Landfills can release noxious gases, particulate matter, and unpleasant odors, which can cause or exacerbate respiratory problems such as asthma, bronchitis, and other respiratory diseases. The disposal of solar panel needs to be handled properly to avoid risks of cancer and other diseases.
* *Waterborne Diseases:* Contamination of groundwater and surface water from disposal/landfill leachate can lead to the spread of waterborne diseases, including gastrointestinal illnesses and infections.
* *Exposure to Hazardous Substances:* Disposal/Landfills may receive various types of solid waste, including hazardous materials. If not properly managed, these substances can pose health risks to nearby communities through leachate migration, accidental spills, or fires.
* Socioeconomic Impact:
* *Property Values:* The presence of disposal/landfills facilities near residential areas can lead to decreased property values, impacting the economic well-being of nearby communities.
* *Land Use and Aesthetics:* Disposal/Landfills sites can have negative visual impacts, altering the landscape and natural surroundings. This can affect the aesthetics of the area and recreational opportunities, potentially leading to decreased quality of life for nearby residents.
* *Community Well-being:* The perception of living near a disposal/landfill sites can cause stress and anxiety among residents due to concerns about health risks, odors, and other environmental issues. This can impact the overall well-being and social fabric of the community.
* *Visual Pollution:* Accumulation of litter at landfill and disposal sites contributes to visual pollution, detracting from the natural or built environment's aesthetic value. This can negatively impact the perception of the facility and the surrounding area.
* *Public Perception:* The presence of litter at landfill sites can create a negative public perception, reflecting poorly on waste management practices. It may lead to concerns about environmental responsibility and the effectiveness of waste management systems.
* Operational Implications:
* *Equipment Damage:* Litter can damage landfill equipment, such as vehicles, machinery, and landfill liners, if it gets caught in moving parts or interferes with operations. This can lead to increased maintenance costs and operational disruptions.
* *Efficiency and Safety Issues:* Excessive litter can impede the movement of vehicles and personnel within the landfill site, hindering operational efficiency. It may also pose safety hazards, such as tripping or slipping risks for workers and visitors.

Assessment of impacts and preparation of measures to reduce/avoid impacts resulting from landfill sitting shall be guided by the requirements stipulated in the World Bank’s ESS3, ESS4, ESS5 and ESS10,

Potential mitigation measures provided as annex 2.

# PROCEDURES FOR ENVIRONMENTAL AND SOCIAL ASSESSMENT OF SUB-PROJECTS

## Overview

This chapter provides specific stages to be undertaken for E&S screening process, review and approval of DMDP II project activities. Once the project components have been identified and locations selected, the LGAs’ project implementing units (PIUs) will have to use this section as the guideline for screening project subprojects, TA activities and implementing the appropriate measures while ensuring compliance to all respective WB E&S framework (ESF) and Tanzania legislative requirements for screening E&S impacts for development projects as stipulated in Environmental Impact Assessment and Audit 2005 (Amendment) Regulations, 2018. The procedures presented in this section are established as a framework to ensure compliance throughout project cycle i.e. preparation/assessment and design of subprojects and during implementation.

## Screening Criteria and Screening Checklist by the Executing Agency for Sub-Projects

E&S screening process helps to foresee whether the future project activities are likely to have potential adverse impacts. The process identifies impacts and proposed mitigation measures; incorporates mitigation measures into project design; and reviews and approves project components proposal. In addition, the screening process and other procedures specified in the ESMF will apply to all project components financed under DMDP II.

PO-RALG jointly with implementing DLA PITs (LGAs PITs), through their respective E&S specialists will fill the screening form by using E&S Screening Form Appendix 1 for guidance on the type of E&S instruments and action plans that must be developed for subproject activities. This exercise will involve identifying the preliminary potential E&S impacts, determining their significance and assigning the appropriate environmental risky category. E&S Safeguards Specialist at PO-RALG will have the mandate to clear the project sub-components designs and proposals that comply with E&S management and then submitting to World Bank for approval. Generally, the project document is accompanied with the copy of completed E&S screening forms. During the approval processes the following documents must be submitted for considerations; a) Environmental and Social Screening results, b) Environmental and Social Scoping Report and TORs for detailed ESIA (if required) c) project proposal, designs and implementation schedule, The NEMC and World Bank will review and clear subprojects TORs for conduct of ESIA/s. Contractor’s

Once the project component has been screened and ESIA TORs approved by World Bank, PO-RALG will hire an environmental consultant who will conduct the environmental and Social Impact Assessment. The assessment will be based on WB E&S framework (ESF), applicable ESSs, guidance in this ESMF, project ESCP as well as Environmental Management Act, 2004; EIA and Audit Regulations 2005 as amended in 2018, in which upon submission to NEMC, the environmental authority shall advise on the nature of information and instrument required for approval decision of the sub-project.

Table 6-1 shows categories of the project identified in EIA and Audit Regulations 2005, as amended in 2018. Two outcomes of screening at NEMC are possible; No ESIA required or ESIA required.

Table 6‑1: Projects’ Categories and Instrument as per Tanzanian Environmental Laws and Regulations

|  |  |  |
| --- | --- | --- |
| **Category** | **Required Submissions for Screening** | **Instrument** |
| A- Mandatory project | Scoping | ESIA (Includes ESMP) |
| B1- Borderline project | Scoping report | ESIA (includes ESMP) |
| B2- Non-mandatory | Project brief | ESMP |
| Special category | Scoping | ESIA (Includes ESMP) |

Schedule I of EIA and Audit regulations have listed Road and Municipal Solid Waste projects in Type A projects which ESIAis mandatory, therefore not all subprojects for DMDP II are Type A.

## Consultation during the Screening Process

Stakeholder consultation and public participation is very important during screening process. Relevant stakeholders shall be consulted particularly when using the subproject screening checklists. Local stakeholders including women and vulnerable persons should be involved in reaching consensus about the subproject site; identifying E&S issues of concern; agreeing on the measures that should be taken to address these issues and mitigate against negative impacts. Stakeholder consultation will be done with people affected by land acquisition, utility service providers, Districts/municipalities, wards, vulnerable groups and other interested parties. Participation needs to be meaningful and inclusive of all stakeholders and communities, with emphasis on gender, ethnicity, income groups, minorities and vulnerable people. Stakeholder Engagement Plan (SEP) prepared for DMDP II is the overarching guiding document that will be used for engagement activities.

EIA and Audit regulations (Amendments) of 2018 have categorized the Road and Municipal Solid Waste projects as Type A (EIA Mandatory Projects) therefore stakeholder’s consultation is needed at key stages of the ESIA process.

## Determination of the Impacts and Risks Analysis of Sub-Projects

Table 6-2 shows project risk category and the type of tool to be prepared as per the WB ESF and EIA and Audit Amended Regulations of 2018.

The World Bank ESF (ESS-1) provides an Environmental and Social Risk Classification (ESRC) of projects as ***High, Substantial, Moderate or Low*** Risk and Is subject to regular review including during implementation. The ESRC considers the following aspects associated with the project/s:

* The type, location, sensitivity and scale of the project.
* The nature and magnitude of the potential environmental and social risks and impacts.
* The capacity and commitment of the Borrower to manage such risks and impacts in a manner consistent with the ESSs.
* Other areas of risk that may be relevant to the delivery of environmental and social mitigation measures and outcomes, depending on the specific project and the context in which it is being developed.

Table 5:2 Summary of project categorization based on ESF 2017

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Aspect** | **High Risk** | **Substantial Risk** | **Moderate Risk** | **Low Risk** |
| Project type, location,  sensitivity, scale | Complex large to very large scale in sensitive location(s). | Not as complex; large to medium scale not such sensitive location. | No activities with high potential for harming people or environment; located away from sensitive areas. | Few or no adverse risks and impacts. |
| Nature and magnitude of risks & impacts, available mitigation | Mitigation unproven: unable to entirely address significant risk; high residual value. | Mitigation more reliable: significant risks but possible to avoid or address. | Easily mitigated: site specific, low magnitude risks. | Nothing to mitigate- no further assessment after screening. |
| Borrower capacity and commitment | Challenges and concerns about track record regarding E&S issues, significant stakeholder engagement capacity, commitment, track record concerns. | Some concerns about borrower track record, engagement capacity but readily addressed. | Sufficient borrower experience, track record, stakeholder engagement capacity. | Minimal or negligible risks to and impacts on human populations and/or the environment |
| Context of risk relevant to ES measures | Significant effects on ability to mitigate risk - significant contextual risks outside project control impacting on E&S performance and outcomes. | Some effects on ability to mitigate risk - known and reliable mechanisms to prevent or minimize, enforcement is weak in some respects, some stakeholder engagement concerns but readily addressed. | No effects on ability to mitigate risk–no contextual risks with effects on E&S performance | Negligible risk. |

Table 5‑2: Subproject Categorization based on the WB Risk Criteria, the Tanzania Regulations

| S/No | Proposed Activities | Category based on the WB Risk Classification | Tentative Category based on ESIA and EA Amended Regulations of 2018 |
| --- | --- | --- | --- |
| 1 | Upgrading and construction of priority sections of the local and feeder road network; | Substantial Risk | Type A (Mandatory Project) |
| 2 | Upgrading and construction of bridges; | Substantial Risk | Type A (Mandatory Project) |
| 3 | Construction of pedestrian paths, cycle lanes and paths, solar street lighting, street trees, roadside drains, greening and erosion control infrastructure. | Moderate Risk | Type B2 (Require registration but shall  not require Environmental Impact Assessment) |
| 4 | construction of stand-alone drains using a combination of grey and green drainage infrastructure; | Moderate Risk | Type B2 (Require registration but shall  not require Environmental Impact Assessment) |
| 5 | water detention, retention, and infiltration basins; | Moderate Risk | Type B2 (Require registration but shall  not require Environmental Impact Assessment) |
| 6 | sediment traps; | Low Risk | Type B2 (Require registration but shall  not require Environmental Impact Assessment) |
| 7 | sustainable urban drainage system features (soakaways, tree planting, swales, berms, green roofs, filter drains, riprap, and other erosion control structures | Moderate Risk | Type B2 (Require registration but shall  not require Environmental Impact Assessment) |
| 8 | landscaping and greening; | Low Risk | Type B2 (Require registration but shall  not require Environmental Impact Assessment) |
| 9 | recreational features; | Moderate Risk | Type B1(Medium to high impact, process of Screening shall be used to categorize either Type “A” or “B2” project) |
| 10 | utilities and buildings; | Moderate Risk | Type B1(Medium to high impact, process of Screening shall be used to categorize either Type “A” or “B2” project) |
| 11 | paths for cycling and walking; | Low Risk | Type B2 (Require registration Audibut shall  not require Environmental Impact Assessment) |
| 12 | upgrading and construction of public markets; | Substantial Risk | Type B1(Medium to high impact, process of Screening shall be used to categorize either Type “A” or “B2” project) |
| 13 | bus stands; | Moderate Risk | Type B1(Medium to high impact, process of Screening shall be used to categorize either Type “A” or “B2” project) |
| 14 | health clinics, childcare centers, and government services. | Substantial Risk | Type B2 (Require registration but shall  not require Environmental Impact Assessment) |
| 15 | construction of new landfills; | Substantial Risk | Type A (Mandatory Project) |
| 16 | closure of dumpsites considering feasible options for solar energy production or landfill gas capture; | Substantial Risk | Type A (Mandatory Project) |
| 17 | construction of transfer stations; | Moderate Risk | Type B1(Medium to high impact, process of Screening shall be used to categorize either Type “A” or “B2” project) |
| 18 | construction of recycling, composting or other waste treatment systems and financing of programs to support them; | Substantial Risk | Type B1(Medium to high impact, process of Screening shall be used to categorize either Type “A” or “B2” project) |

Note: Table 6-4 includes the WB clearances procedures

## Determination the Environment and Social Assessment Requirements for Sub-projects

Table 6-3 outlines ESF instruments for High-Risk/Type A projects to be prepared and implemented during project implementation.

Table 6‑3: Subprojects E & S Instruments

| Environmental and Social Standard | Instruments |
| --- | --- |
| ESS1: Assessment and Management of Environmental and Social Risks and Impacts | * ESMF will be applied as an overarching document * ESIA with ESMP * Contractor’s ESMP |
| ESS2: Labor and Working Conditions | * Labor Management Procedure (LMP) * Code of Conducts; ESIAs/ESMPs/CESMPs with GBV mitigation measures |
| ESS3: Resource Efficiency and Pollution Prevention and Management | * Contractor’s ESMP (which will develop dedicated management plans) |
| ESS4: Community Health and Safety | * Site-specific ESMP * Code of Conduct, ESMPs with GBV mitigation measures |
| ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement | * Apply Resettlement Policy Framework (RPF) as an overarching document * Resettlement Action Plan (RAP) |
| ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources | * Contractor’s ESMP |
| ESS7: Sub-Saharan African Historically Underserved Traditional Local Communities | * N/A |
| ESS8: Cultural Heritage | * Chance Find Procedures included in this ESMF * Contractor’s ESMP (which will develop dedicated management plans) |
| ESS10: Stakeholders Engagement and Information Disclosure | * Stakeholder Engagement Plan (SEP) for the DMDP II * Stakeholder engagement activities in ESMPs |

## Development of E&S Risk Management Documents

### Environmental and Social Impact assessment and Environmental and Social Management Plans

Consultants have the responsibility for preparations of ESIAs and ESMPs under the supervision of PO-RALG and subsequently be approved by the World Bank and NEMC prior to implementation of the subprojects.

ESIAs will address direct, indirect, induced and cumulative impacts. Preparation of ESIA/ESMP includes stakeholder’s engagement and public consultation processes as detailed in the SEP to be documented in the reports and reflected in the project design. Feedback from the consultations shall be taken into account in the ESIA study processes. Mitigation measures shall be included in the bidding documents and civil works contracts. No civil works can start at project sites prior to getting certification from NEMC (Appendix II) . Preceded by a Scoping Report (Appendix IV), an ESIA along with an ESMP shall be prepared based on the outlines given in the ***Appendix III***.

.

### Resettlement Action Plans (RAP), Temporary Relocation Plans (TRPs) and Due Diligence Reports (DDRs)

Project components will be mostly sited on the current location of existing infrastructure. Where land is required, i.e. expansion or extension, the project will utilize land acquired from individuals. Compensation procedures and payment of compensation costs for physical and economic displacement will be in accordance with RAPs prepared and approved for respective subprojects in accordance with the Resettlement Policy Framework (RPF) developed in parallel with this ESMF. Temporary relocations as well as due diligence of the LGAs’ owned sites shall be in accordance with the RPF.

### Contractors’ Environmental and Social Management Plans (C-ESMP)

Based on requirements of the ESMPs reflected in the approved ESIA documents, Contractors are required to develop Contractors’ ESMPs (C-ESMPs) for all issues of E&S aspects which are relevant to the activities under the contract. The purpose of the projects’ C-ESMP is to outline how the contractors will avoid, minimize or mitigate effects on the environment and surrounding areas during project implementation. Contractors ESMPs are 'live' documents that should be reviewed and updated at regular intervals throughout the project life cycle. The C-ESMPs shall be approved by the Supervision Engineer/Consultant and PO-RALG. Recommended contents of the C-ESMP have been provided as ***Appendix VI***

Ensuring of compliance among workers, Contractors shall also provide regular trainings to workers on various topics such as Environmental, Health and Safety, ESF requirements, code of conduct and GBV/SEA, labor issues, occupational health and safety, emergence preparedness and response, HIV/AIDS and COVID-19 throughout the project cycle.

### Undertaking Environmental and Social Audit

Since the project has not mentioned financing existing facilities (e.g. solid waste infrastructure) and given the nature of the project, should at any stage be deemed necessary to involve existing facilities, then Environmental and Social Audit (ESA) shall be undertaken for such facilities and confirm only those with no significant outstanding issues are eligible for the project support. The aim of the audit is to identify significant environmental and social issues in the existing project or activities, and assess their current status, specifically in terms of meeting the requirements of the ESSs. As per the requirements of ESS1 and Tanzania’s EIA and Audit Regulations 2005 and its amendments of 2018. Conducting ESA is the responsibility of the respective LGAs, including integrating the recommendations in their respective O&M manuals, and needs to be approved by the World Bank NEMC prior to the financing of existing facilities.

### E&S Specifications for Contractors

The E&S specifications for contractors are meant to guide the contractor to follow good environmental and social practices during construction. WBCU and the design consultants are responsible for including these specifications in the special conditions of contract, and ensuring that they are built into unit rates or listed as items in the BOQs. For Substantial and Moderate risk sub-projects, , Contractors should follow ESHS Terms and Conditions in Contract, Subproject Environmental and Social Management Plans and ESIA (if developed), Develop and Implement C-ESMP in line with Section 5.6.3 above and World Bank Group Environment, Health and Safety Guidelines (EHS). For all Low risk sub-projects, contractors should follow these Environmental and Social Specifications, WB EHSG, ESHS Standard Terms and Conditions in WB Procurement for Works Construction, and measrues provided in Appendix II Generic ESMP.

### Review and Clearance of Safeguards Documents Including Information Disclosure

The WB ESF requires that DMDP II E&S safeguards’ reports be reviewed and approved by the WB as well as the country’s authorities and made available to project affected groups, local NGOs, and the public at large. Review and approval of ESIA and provision of environmental certificate/permit will be the mandate of the NEMC at national level. At the WB level, review and approval for public disclosure of ESMF, ESIA and other safeguard documents such as the SEP, LMP and RPF will be the mandate of the PO-RALG and conducted in both the WB website and PO-RALG website. Disclosure will be conducted to reach as wide range of stakeholders as possible. TANROADS will disclose this ESMF and other safeguard documents such LMP, RPF and SEP by:

1. Publication in a government newspaper;
2. On its website;
3. Making copies available at project’s LGAs and TARURA District offices,
4. Making copies available to the local government agencies and other stakeholders.
5. PO-RALG will also authorize the WB to disclose this ESMF and other safeguard documents on the WB website.

Table 6‑4: Summary of Procedures for Environment and Social Assessment (ESA) of Sub-projects.

Table 5‑5 : Summary of Procedures for Environment and Social Assessment (ESA) of Sub-projects.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/No** | **Subproject** | **Proposed E&S instruments** | **Consultation and Information Disclosure Requirements** | **Review and Clearance Requirement** |
|  | **Substantial Risk Subprojects** | | | |
| 1 | Upgrading and construction of priority sections of the local and feeder road network; | ESMF, RPF, ESIA, ESMP, GRM, RAP, LMP, TMP, SEP, Site Specific ESMP | PO-RALG and WB Website | EIA Certificate by NEMC and WB Clearance\* |
| 2 | Upgrading and construction of bridges; | ESMF, RPF, ESIA, ESMP, GRM, RAP, LMP, TMP, SEP, Site Specific ESMP | PO-RALG and WB Websites | EIA Certificate by NEMC and WB Clearance\* |
| 3 | upgrading and construction of public markets; | ESMF, RPF, ESIA, ESMP, GRM, RAP/TRP/DDR, LMP, SEP, Site Specific ESMP | PO-RALG and WB Websites | EIA Certificate by NEMC and WB Clearance\* |
| 4 | health clinics, childcare centers, and government services. | ESMF, RPF, ESIA, ESMP, GRM, RAP/TRP/DDR, LMP, SEP, Site Specific ESMP | PO-RALG and WB Websites | EIA Certificate by NEMC and WB Clearance\* |
| 5 | construction of new landfills; | ESMF, RPF, ESIA, ESMP, GRM, RAP, LMP, SEP, GBVAP, Site Specific ESMP | PO-RALG and WB Websites | EIA Certificate by NEMC and WB Clearance\* |
| 6 | closure of dumpsites considering feasible options for solar energy production or landfill gas capture; | ESMF, RPF, ESIA, ESMP, GRM, RAP, LMP, SEP, Site Specific ESMP | PO-RALG and WB Websites | EIA Certificate by NEMC and WB Clearance\* |
| 7 | construction of recycling, composting or other waste treatment systems and financing of programs to support them; | ESMF, RPF, ESIA, ESMP, GRM, RAP, LMP, SEP, Site Specific ESMP | PO-RALG and WB Websites | EIA Certificate by NEMC and WB Clearance\* |
|  | **Moderate Risk Subprojects** | | | |
| 8 | Construction of pedestrian paths, cycle lanes and paths, solar street lighting, street trees, roadside drains, greening and erosion control infrastructure. | Generic ESMP Incorporated with all Necessary Mitigation Plans, RAP, TRP, DDR | PO-RALG and WB Websites | NEMC and WB Clearance\* |
| 9 | construction of stand-alone drains using a combination of grey and green drainage infrastructure; | Generic ESMP Incorporated with all Necessary Mitigation Plans, RAP, TRP, DDR | PO-RALG and WB Websites | NEMC and WB Clearance\* |
| 10 | water detention, retention, and infiltration basins | Generic ESMP Incorporated with all Necessary Mitigation Plans, RAP, TRP, DDR | PO-RALG and WB Websites | NEMC and WB Clearance\* |
| 11 | sustainable urban drainage system features (soakaways, tree planting, swales, berms, green roofs, filter drains, riprap, and other erosion control structures | Generic ESMP Incorporated with all Necessary Mitigation Plans, RAP, TRP, DDR | PO-RALG and WB Websites | NEMC and WB Clearance\* |
| 12 | recreational features; | Generic ESMP Incorporated with all Necessary Mitigation Plans, RAP, TRP, DDR | PO-RALG and WB Websites | NEMC and WB Clearance\* |
| 13 | utilities and buildings | ESIA, RAP, TRP, DDR[[22]](#footnote-22) | PO-RALG and WB Websites | EIA Certificate by NEMC and WB Clearance\* |
| 14 | bus stands; | ESIA, RAP, TRP, DDR[[23]](#footnote-23) | PO-RALG and WB Websites | EIA Certificate by NEMC and WB Clearance\* |
| 15 | construction of transfer stations; | ESIA, Generic ESMP Incorporated with all Necessary Mitigation Plans, RAP, TRP, DDR | PO-RALG and WB Websites | EIA Certificate by NEMC and WB Clearance\* |
|  | **Low Risk Subprojects** | | | |
| 16 | sediment traps; | Generic ESMP Incorporated with all Necessary Mitigation Plans, RAP, TRP, DDR | PO-RALG and WB Websites | NEMC and WB Clearance\* |
| 17 | landscaping and greening; | Generic ESMP Incorporated with all Necessary Mitigation Plans, RAP, TRP, DDR | PO-RALG and WB Websites | NEMC and WB Clearance\* |
| 18 | paths for cycling and walking; | Generic ESMP Incorporated with all Necessary Mitigation Plans, RAP, TRP, DDR | PO-RALG and WB Websites | NEMC and WB Clearance\* |

\* Note: WB clearance only in specific situations as described below.

As the main implementing agency of the Project, PO-RALG will be responsible for ensuring that all environmental and social risk management instruments are consistent with the ESF. This includes the systematic screening of all operations to make sure they include and adhere to the applicable provisions of the relevant ESS. However, the clearing of some instruments will be also carried out by the World Bank, particularly in the following cases:

* All high risk projects will be reviewed and cleared by the Bank prior to the NEMC certification then disclosed in both WB and PORALG websites
* All RAPs and LRPs will be reviewed and cleared by the Bank, disclosed in both WB and PORALG websites
* For Substantial risk subprojects, will be reviewed and cleared by the Bank prior to the NEMC certification then disclosed in both WB and PORALG websites …
* For Moderate risk subprojects, 3 documents to be used as templates will be reviewed and cleared by the Bank certified by NEMC and disclosed in both WB and PORALG websites …
* For Low risk subprojects, the first 3 ESMPs will be reviewed by PORALG and later cleared by the Bank

Construction works bids and contracts will use the World Bank Standard Bidding Documents which includes provision of ESF requirements to be implemented by the contractor.

### Monitoring and Project Supervision

The PO-RALG/WBCU and LGAs’ PIUs will have dedicated teams for monitoring and supervision of compliance with safeguard requirements at different levels. Monitoring shall focus on two main areas:

1. Compliance monitoring by the LGAs’ PIUs in close collaboration and engagement with the host communities to measure the effectiveness of subproject ESMPs, assess compliance with E&S requirements, evaluate compliance with monitoring indicators, and to verify the measures identified in the ESMP, including any unmitigated EHS risks and impacts and ensuring their inclusion in the clauses for contractors are being implemented; and
2. Ensuring that measures have been taken to include public participation in the decision making process. Such measures include that subproject implementation staff and communities should ensure that mitigation measures as outlined in of subproject E&S requirements including requirements of ESMPs Contractor’s ESMPs are effectively implemented to address identified issues and concerns.

DMDP-2 being a High-Risk Project, will be subjected to Independent Third Party EHS Monitoring by EHS Consultants.

Good supervision practice should focus on ensuring that in selected sub-projects:

1. there is timely and efficient implementation of agreed ESSs measures;
2. staff at the subproject level have received adequate and appropriate training and technical support;
3. the subprojects’ ESMPs are implemented in conformity of the ESSs and loan agreement (and the Environmental and Social Commitment Plan, ESCP);
4. sub-project staff and the communities “own” the subprojects and are actively participating in or monitoring subproject implementation;
5. channels for complaints and seeking redress are well- understood and are dealt with promptly and fairly in order.

### Reporting Arrangements

A series of E&S safeguard tools have been designed for the use during DMDP II implementation, specifically for ensuring implementation of environment, social, health and safety (ESHS) during sub-projects implementation throughout the project cycle. EHS reporting will also be conducted by LGAs and other entities responsible for operation and maintenance of the constructed infrastructures.

The tools or instruments that should be utilized to oversee E&S issues during the project cycle are: a) ESMF, RPF, LMP, SEP, ESCP as well as ESIA and ESMPs and RAPs at project levels. The proposed E&S instruments shall include all necessary measures for GBV/SEA.

The ESIA and ESMPs are among the safeguard tools at project level that entail the following three level outputs: (a) Contractor’s Environmental and Social Management Plan (C-ESMP); (b) Contractors’ Environmental and Social Progress Reports (ESPR); (c) Environmental and Social Monitoring Report (C-ESMR); and (d) Environmental and Social Completion Report (ESCR).

#### Contractor’s Environmental and Social Management Plan (C-ESMP)

The Contractor’s ESMP is the first level of E&S report during project implementation. The contractor shall prepare and submit Contractors’ Environmental and Social Management Plan (C-ESMP) and Health and Safety Plan within 60days upon notification of contract award. The plan shall describe measures to be followed to protect the environment, public, local communities, workers, and ecological habitat in proximity to the project working areas.

#### Contractors’ Environmental and Social Progress Reports (C-ESPR)

The ESPR is the second level of E&S progress reports as per contractual obligations that should be developed by Contractors during works execution (monthly and quarterly progress reports) for the whole project periods for the Supervision Consultants, PO-RALG-WBCU and LGAs’ PIUs to be able to follow up and monitor the Contractors’ implementation of the E&S mitigation measures identified in the Contractor’s ESMPs (C-ESMPs) and other safeguards instruments which are prepared for the specific projects. The ESPR 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, according to the requirements of ESCP of this project.

Monthly and Quarterly Progress Report (C-ESPR) shall be prepared by contractors explaining the compliance status of the Project with the ESMP in their scope. Details will include status on:

1. Contractor’s ESMP implementation work plan and summary of implementation progress
2. Implementation of Contractor’s ESMP (ESMP and related plans such as OHS Management Plan, , Workers’ Camp Management Plan, Community Health and Safety Plan, Biodiversity management plan, Waste Management Plan (Solid & Liquid; Hazardous and Non-Hazardous),etc.)
3. Status of Compliance with E&S statutory and WB ESSs requirements (including licenses for construction material sources, work permits, water use and discharge permits, waste collection and disposal, insurance, etc.)
4. Status on actions indicated in the Labor Management Procedure
5. ESHS incidents & supervision
6. Usage (no. required, distributed and ensure used) of Personal Protective Equipment (PPE) such as hard hats, safety shoes and safety vests by workers
7. Safety at work sites like providing traffic signage, barriers/delineator, management of traffic, drainage and pliable road surface etc.
8. Training conducted, and workers participation (submit reports with statistics of training and worker’s participation)
9. Functioning of GRM relating to communities and labor aspects (Separately), including summary details of Workers and Communities’ grievances
10. Corrective Actions and planned E&S activities for next month

#### Environmental and Social Monitoring Report (C-ESMR)

The ESMR is third level and among the crucial project monitoring reports to be prepared by PO-RALG/WBCU after review of Contractors’ Environmental and Social Progress Report (ESPR) and undertaking site monitoring. As part of first compliance verification, the WBCU shall develop E&S checklist as management instrument to be used for verification potential E&S risks and determine the relevant mitigation measures to be applied. The C-ESMR will assist WBCU to determine status and levels of Contractors compliance to ESIA, ESMP, ESMF and other national laws and regulations. The report can be shared with the WB and other stakeholders for review on quarterly basis.

#### Project Environmental and Social Completion Reports (P-ESCR)

The ESCR is the fourth level and final E&S management report that should be developed by the Contractors and approved by Supervision Consultants and PO-RALG/WBCU once the works are done, in order to review the compliance of all the E&S measures identified in the ESIA and ESMPs and other safeguards instruments developed for the specific projects. The ESCR will contain project ESHS strengths and weaknesses, lesson learned, recommendations and conclusion. The report can be shared with the WB and other stakeholders for review.

# INSTITUTIONAL ARRANGEMENTS AND CAPACITY BUILDING

## Project Implementation Arrangements

The DMDP 2 project will be implemented by President’s Office, Regional Administration and Local Government (PO-RALG) together with TARURA and all five implementing District Local Authorities.

PO-RALG and TARURA have gained vast knowledge and experience on implementation of Urban World Bank funded project through DMDP 1 project implementation in then Kinondoni, Ilala and Temeke Municipalities. The LGAs will be responsible to implement the work, including sub-project safeguards and project reporting to WBCU. Each LGA will establish a full-time PIU staffed with a dedicated team of officers to carry out safeguard responsibilities.

The Project implementing arrangement includes Environment and Social Staff at the PO-RALG WBCU; these includes social expert, RAP experts and Environment experts. PO-RALG also has a Environmental and Social Advisor who also provides support to the team.

Each LGA implementing DMDP 2 will also have a Project implementing team that among others will comprise of an environmental expert, social expert and grievance handling expert. During project implementation, each contractor and consultant will have Environment and Social experts that includes Environment, Social and Occupation health and safety expert.

## Assessment of The Institutional Capacities to Manage Environmental and Social Risks and Impacts

The same specialists will continue to support the proposed DMDP2 Project. However, a training needs assessment will be undertaken during the implementation stage after constituting the project implementation E&S teams at both PO-RALG and TARURA (WBCU) might need capacity building and strengthening in project management and knowledge enhancement in handling of new World Bank ESF/ESS requirements.

## Requirements for Training and Capacity Building

Capacity building is mandatory for successful implementation of DMDP 2 projects, all participating parties will be trained, and these include the following:

* Participating LGAs
* Training of Design Consultants, interaction and mentoring with and by ESIA/ESMP Consultants and Third-Party Monitoring and Supervision Consultants
* Contractors and Supervision Engineers/Consultants
* Operation and Maintenance Teams

All project implementing LGAs will be responsible to implement the work, including sub-projects safeguards and project reporting to WBCU. Each LGA will establish a full time PIU staffed with dedicated team of officers to carry out safeguard responsibilities. The Bank has worked in the past with most of the participating LGAs (under DMDP 1, TSCP and LGSP) and their capacity for meeting Bank’s ESSs is known to be sufficient though might need some training to enhance their capacity.

The Design engineers, contractors, supervising engineers, entities responsible for Operation and Maintenance Phase of Project subprojects, will also train all workers about environmental, social, health and safety and the site-specific environmental and social measures to be followed. All workers should be trained prior to starting work on site and trainings should be conducted periodically as needed.

The following issues will be covered:

1. World Bank’s ESF;
2. How to use DMDP 2 Project E&S instruments (ESMF, RPF, SEP and LMP);
3. Subproject and site screening;
4. Resettlement issues;
5. Stakeholder Engagement;
6. Waste management;
7. Grievance handling;
8. Occupational health and safety (OHS);
9. Labour issues and Code of Conduct for Workers;
10. Specific aspects of environmental and social assessment and monitoring of the ESIAs, ESMP and ESMF
11. Preparation and implementation of Contractor’s ESMPs;
12. Environmental and social management of construction works;
13. Environmental and social supervision of construction works; and
14. Reporting requirements; etc.
15. Solid waste landfills and dumpsites management of environmental and social risks
16. Gender-based violence/Sexual Exploitation and Abuse and sexual harassment (SEA/SH).

# PUBLIC CONSULTATION AND INFORMATION DISCLOSURE

## Stakeholder Consultations and Participation

The ESMF preparation conducted stakeholders’ consultations in June 2023. Key project stakeholders for DMDP II Project were identified including: Government Ministries, State Agencies / Organizations’ / and Departments, Project offices, non-governmental organization and local communities, both the affected and host communities, including women, the poor and most vulnerable groups.

Meetings were held with key officials to provide them with awareness and involvement with the DMDP II Project, concerns of project implementation, and to obtain relevant documents or baseline information. The consultations and participation also helped to gather information on the mandates and permitting requirements to inform the development of the DMDP II Project Program.

All Stakeholder consultations and information disclosure for DMDP II will be guided by Project Stakeholder Engagement Plan (SEP) as per ESS10 which will guide;

* The stakeholder’s Identification
* The stakeholder’s Analysis
* The stakeholders Engagement Tools

Purposely, SEP involves development of appropriate strategies to effectively engage stakeholders throughout the lifecycle of the project (i.e. planning, design and implementation) in a transparent and inclusive manner.

## Objective of Consultation

The overall objective of the consultation process was to solicit concerns, opinions, views, and attitudes of the stakeholders; disseminate project information and to 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 project process and operations;
* 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 safeguard documents, impact identification, potential sources of cumulative impact and impact mitigation;
* To solicit stakeholders’ questions and concerns from stakeholders and ensure they are addressed in the safeguard;
* To increase long term project sustainability;
* To reduce hitches of institutional coordination; and
* To incorporate the stakeholders' concerns in the project development and project life cycle.

## Consultation Process

Stakeholders’ consultations and site visits were conducted to all 5 LGAs under DMDP II project in June 2023 DMDP II. The consultations involved ward councilors, ward executive officers, Mtaa Chairmen and community representatives.

The consultations were conducted through the use of consultative meetings, public meetings, key informant interviews and focus group discussions. In-depth interviews were held with staff member’s/key informants of the government and private institutions, agencies, regional, district levels depending on the type of data required. The interview also, targeted communities residing in the vicinity of the proposed subprojects’ sites.

These consultations were held to ensure that these groups were informed about the projects and their views are incorporated in the process of the projects’ development. The discussion allowed the community members to present their views concerning the proposed projects. Considering their views and preferences was essential in the identification of the level of project risks and determine the need for further Environmental and Social studies.

The Total number stakeholders consulted during consultative meetings under DMDP II are presented in the table 7-1 below:

Table 7‑1: Number of Stakeholder’s consulted under DMDP II

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Stakeholders** | **Date** | **Numbers** | | | **Total Number** |
|  |  | **Male** | | **Female** |  |
| National Workshop | 01/06/2023 |  | |  |  |
| **DCC-Ilala** |  |  | |  |  |
| Head Quarter Level | 06/06/2023 | 55 | | 39 | 94 |
| Ward Level | 24 | | 16 | 40 |
| Mtaa Level | 28 | | 16 | 44 |
| **Sub-Total** |  | **107** | | **71** | **178** |
| **Kinondoni Mc** | 07/06/2023 |  |  | | |
| Head Quarter Level | 31 | | 14 | 45 |
| Ward Level | 20 | | 16 | 36 |
| Mtaa Level | 78 | | 32 | 110 |
| **Sub-Total** |  | **129** | | **62** | **191** |
| **Temeke Mc** | 08/06/2023 |  | | | |
| Head Quarter Level | 22 | | 25 | 47 |
| Ward Level | 8 | | 10 | 18 |
| Mtaa Level | 5 | | 6 | 11 |
| **Sub-Total** |  | **35** | | **41** | **76** |
| **Kigamboni Mc** | 12/06/2023 |  | | | |
| Head Quarter Level | 48 | | 25 | 73 |
| Ward Level | 19 | | 29 | 48 |
| Mtaa Level | 78 | | 35 | 113 |
| **Sub-Total** |  | **145** | | **89** | **234** |
| **Ubungo Mc** | 13/06/2023 |  | | | |
| Head Quarter Level | 52 | | 28 | 80 |
| Ward Level | 6 | | 5 | 11 |
| Mtaa Level | 15 | | 6 | 21 |
| Preparation Mission | 19-23/06/23 |  | |  |  |
| **Sub-Total** |  | **73** | | **39** | **112** |
| **Grand Total** |  | **489** | | **302** | **791** |

The signed list of stakeholders consulted and their views are presented on the Appendices VII and VI respectively.

### Summary of Stakeholder’s Views

* TARURA’s in each LGA’s shall prepare a separate meeting with all Councilor’s so as to give our recommendation’s concerning on the remained roads for the second phase of 70%
* The Consultant’s team shall revise the border’s road wards so as to avoid the contradiction to the proposed roads during implementations
* The stakeholder’s consultations shall be considering all the people/community within the proposed projects area.
* The government institutions such as TANESCO, DAWASA and TARURA shall have a common coordination’s for utilities relocations before the implementations of DMDP II project
* The proposed project for roads construction under phase1 of the planned 30% shall avoid compensations activities/implemented in the area with small amount of compensation which can be easy compensated.
* The storm water drainages shall be considered under DMDP II so as to avoid flooding effects to our environments
* Employment opportunity priorities shall be given to the surrounding communities

## Recommendations on Stakeholders’ Views

From Stakeholders’ views, this ESMF recommends development of “Local content Plans in ESMPs” for each subproject under DMDP II to ensure that members of local communities are effectively given priority during recruitment of labor and have descent work conditions. Broader stakeholder consultation shall be undertaken during ESIA and RAP preparation for each subproject and their concerns utilized to identify project related impacts and device mitigation measures. *Refer to the A****ppendix XI***

## ESMF Disclosure

In compliance with World Bank ESF (ESS 10 & other relevant ESSs) and the ESIA and Audit Regulations, 2005; disclosure of relevant safeguard documents helps affected communities and other interested parties to understand the scope and associated risks, impacts and opportunities. PO-RALG 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) must be disclosed and made available to the public/communities for review at strategically accessible places (e.g. World Bank website, PO-RALG website, TARURA HQ, respective TARURA District Offices and project’s LGAs offices as well as to the most preferable newspapers.) in a form, manner and understandable language preferable Kiswahili language. This allows the public and other stakeholders to comment on the possible E&S impacts of the roads and airports 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.

# GRIEVANCE REDRESS MECHANISM

## Overview

Grievance redress mechanism (GRM) involves a formal process for receiving, evaluating and redressing program-related grievances from affected communities at the level of project component or activity. Project beneficiaries, project affected people (PAPs) i.e. those who will be and/or are likely to be directly or indirectly affected, positively or negatively, as well as the broader citizens can use the GRM for the purposes of providing complaints about the project. Project affected people include those who will be affected by project induced land acquisition and economic / physical displacement or by any other project related impact.

The DMDP II Project recognizes vulnerability of the different project’s participants to be involved or affected by the project including road users, community members, workers and other beneficiaries.

## Procedures for Grievance Management

Grievances related to land take will be handled following the GRM detailed in the RPF for DMDP II Project while all other types of grievances will be handled as per the details in the SEP and LMP for DMDP II Project. Accordingly, each sub-project will establish a formalized procedure or process for dealing with both workers’ and communities’ grievances. Each should include;

* Assigning a responsible person, team or function to organize the resolution of grievances;
* Defined timeframes for acknowledgement of the receipt of complaints and subsequent resolution;
* Practical arrangements for maintaining confidentiality, reviewing and resolving grievances, including resources and organizational arrangements information on the grievance; and
* A provision for an appeal mechanism including provisions for arbitration in the courts

## Records Keeping

A simple database is often useful to manage and monitor grievances. Good practice is to log all grievances, even recurrent ones or grievances that will eventually be dismissed as unreasonable. Regardless of the actual establishment of such a database, typically documentation on grievances keeps track of the following:

* Nature of complaint;
* The name and contact details of the complainant, if appropriate;
* The date that the complaint was logged;
* Location where the complaint is related to;
* The name of the technical staff charged with addressing the complaint, if appropriate;
* Any follow up actions taken;
* The proposed resolution of the complaint;
* How and when relevant Project decisions were communicated to the complainant;
* Whether longer-term management actions have been taken to avoid the recurrence of similar grievances in the future, if applicable.

## Responsibility for Implementing Grievance Management Procedures

The GRM Committees at Mtaa, Ward, District as well as regional levels, will be established and adequately capacitated. The GRM will also be extended to the WBCU level and be expanded to handle all types of grievances arising from implementation of all projects and sub-projects at each LGA level under the DMDP II Project including work related grievances. At the Regional Coordinator’s Office level a Grievance Committee comprising of DMDP II Project/Project Coordinator, Environmental Officer, and Community Development Officer/Sociologist will be formed to address all grievances related to Project performance. To ensure effectiveness and efficiency of DMDP II Project’s GRM the procedures for handling grievance will be simple and administered by the Mtaa Council and DMDP II Project implementing agency’s GRM focal points. The Mtaa Council and DMDP II Project implementing agency’s GRM focal points shall maintain records where grievances and complaints, including minutes of discussions, recommendations and resolutions made, will be recorded. Targeted communities, workers and other beneficiaries will be notified about the grievance mechanism through sensitization programs and posters placed at implementing agency’s offices, local government authorities such as regional, and district, ward as well as Mtaa levels. As a measure of improving DMDP II Project performance and accountability, a formal channel for project-affected people (community members, members of vulnerable groups, project implementers, civil societies, and the media) to air their grievances will be established. These communication channels will include a toll-free hotline number; email address, face to face communication, media or an uptake form that will be available at villages. People will be encouraged to bring their grievances, complaints and comments to the DMDP II Project implementing agencies.

## Management GBV and SEA Cases in the Workplace for DMDP II

The DMDP II Project will identify potential specific risks and impacts for women and children during subprojects implementation. Due to the influx of workers, Gender Based Violence (GBV) risks for communities where construction is carried out can increase, such as increasing the rates of sexual exploitation and abuse (SEA). The DMDP II Project will put into place different prevention and mitigation measures (including requiring Contractors to establish action plans that will show how GBV and SEA cases will be prevented or handled at their worksites; and collaborate with local authorities and relevant NGOs to deal with GBV and SEA that might be caused by the project implementation) for the specific risks for women and children that the sub-projects can entail and, will be linked to the GRM, both at Project and LGA levels. Contractors’ GBV and SEA Management Plans will be approved by Supervision Consultant before commencement of construction activities.

The Contractors shall be required to prepare their GBV and SEA plans. The GRM will refer survivors to the services (either formal or informal) most capable to provide care. Awareness raising that will be provided to communities on different mechanisms of the project to respond to SEA and on the way to place complaints into the GRM. The bidding documents for contractors will require the development of a Code of Ethical Conduct (CEC), which the PIU will need to approve, regular training for workers on the contents of the CEC and, depending on the level of risk, for a GBV Action Plan with a clear Response and Accountability Framework. Monitoring mechanisms will be put into place to ensure that mitigation and response measures are in place and working accordingly.

For workers hired by contractors, the contractors will be required to prepare their GRM procedures as a prerequisite for tender which at a minimum conform to these requirements. The GRM procedures have to be transparent. After they are engaged, contractor will be required to prove that each employee has been inducted and signed that they have been inducted on the procedure. The details of the workers’ GRM are presented in the LMP under the DMDP II Project.

Specific provisions of the GRM will be prepared for complaints related to Sexual Exploitation and Abuse (SEA) that could be derived from the DMDP II Project to ensure the survivor’s confidentiality and rights. To properly address GBV risks, the GRM needs to be in place prior to contractors mobilizing. The GRM should not ask for, or record, information on more than three aspects related to the GBV incident:

* The nature of the complaint (what the complainant says in her/his own words without direct questioning,
* If, to the best of their knowledge, the culprit was associated with the project, and
* If, possible, the age and sex of the survivors.

Different entry points where survivor can place complaints confidentiality shall be identified and linked to the GRM. The GRM Protocol should have a specific section on GBV related complaints. This shall be developed with the support of specialized organizations in the matter. *Table 7-1 below show a GRM Protocol for DMDP II.*

Table 7-1: Management Guide for Grievances

| STEP | PROCESS | DESCRIPTION | TIME FRAME | OTHER NFORMATONS |
| --- | --- | --- | --- | --- |
| 1 | Identification of grievance | * Face to face * Phone * Letter, * E- mail * Recorded during public/community interaction * Others | 1 Day | * Email address; * Hotline number |
| 2 | Grievance assessing and  recording | * Assessing the significance and recording grievance in a log book | 4-7 Days | **Significance criteria**   * Level 1 – one off event; * Level 2 – complaint is widespread or repeated; * Level 3- any complaint (one off or repeated) that indicates breach of law or policy or the ESMF/RPF provisions |
| 3 | Acknowledging the grievance | * Acknowledgement of grievance through appropriate medium | 7-14 Days | DMDP II implementing team |
| 4 | Development of response | * Grievance assigned to appropriate party for resolution * Response development with input from management/ relevant stakeholders | 10-14 Days | DMDP II implementing team |
| 5 | Signing off the response | * Redress action approved at appropriate levels | 4-7 Days | DMDP II implementing team should  sign off |
| 6 | Implementation and  communication of response | * Redress action implemented and update of progress on resolution communicated to complainant | 10-14 Days | DMDP II implementing team |
| 7 | Complaints Response | * Redress action recorded in grievance log book Confirm with complainant that grievance can be closed or determine what follow up is necessary | 4-7 Days | DMDP II implementing team |
| 8 | Closing the grievance | **Record final sign off of grievance.**   * If grievance cannot be closed, return to step 2 or refer to sector minister or recommend third- party arbitration or resort to court of law | 4-7 Days | DMDP II implementing team |

**Note:** The prevention of this risk will be properly outlined in Subprojects ESIAs, ESMPs and RAPs.

# BUDGET ESTIMATES FOR ESMF IMPLEMENTATION

## Overview

ESMF implementation will require funding to make it successful, there are a number of activities to be done including the following:

* Preparation of ESIAs/ESMPs
* monitoring and supervision,
* institutional development activities,
* training program,
* technical assistance,
* allowances for the review and
* approval of subproject management plans and annual reviews

The above activities will be clustered and detailed in the following sub-sections.

## Training of LGAs Designated Staff

Staff will be selected from all Implementing DLAs, namely; Dar es Salaam City Council, Kigamboni Municipal Council, Temeke Municipal Council, Ubungo Municipal Council, and Kinondoni Municipal Council. It is estimated that about 10 staff from each implementing DLAs will be involved, which means about 50 staff will be trained. The following are the targeted staff:

* City/ Municipal Engineer,
* Environmental Management Officers (EMO),
* Social planning/Community Development,
* Economic Planning,
* Urban Planning, and
* Health Department.

There will be a provision of a contingency budget to accommodate any possible addition of new staff within implementing DLAs, about 15% of the total budget will be adopted.

## Training of Design Consultants

Considering that, designs should accommodate recommendations from ESIAs, and therefore Safeguards and Design teams should be able to communicate based on a common understanding of Safeguard issues. In this regard, Design consultants will also be training on Environmental, Social, Health and Safety management as a key design consideration.

It is estimated that, each DLA will be designed by one design consultant, and from one design team, at least four (4) staff will be trained, this brings total number of 20 staff to be trained.

## Training of Contractors and Supervising Engineers

There will be annual/biannual training workshops on environmental, social, health and safety requirements for Contractors and Supervision Engineers/Consultants to make sure that, all parties do perfume to the required standards of this ESMF.

It is estimated that, from all Five DLAs, each DLA will have one contractor and one supervising engineer. Three staff from the Contractor and two staff from the supervising engineer will participate in the training/ workshop, totaling 25 staff to be trained.

## Community Involvement

The community will be involved through their respective Wards and Streets representatives. The representatives will be given an awareness of the project and Safeguard requirements from both the Tanzanian government and the World Bank guidance. Moreover, the representatives will be taken through available tools to be used for handling complaints and challenges caused by the project.

It is estimated that, for five DLAs, one day for each LA and each LA will have twenty (20) representatives. Therefore, One Hundred (100) members will be involved.

## Cost for ESMF Implementation

The ESMF implementation will involve costs to be incurred for effective implementation. The costing details are presented in Table 10.1, cost for preparation and implementation of other tools such as ESIA, ESMP and RAP are not included and will be presented separately in respective budgets.

| **SN** | **Training Activity/ Workshops** | **1** | **2** | **3** | **4** | **5** | **Total (USD)** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | Training Assessment and preparations | 100,000.00 | 20,000.00 | 20,000.00 | 20,000.00 | 20,000.00 | 180,000.00 |
| 2 | Harmonization meeting WBCU and DLAs | 50,000.00 | 20,000.00 | 20,000.00 | 20,000.00 | 0.00 | 80,000.00 |
| 3 | DLAs training | 200,000.00 | 50,000.00 | 50,000.00 | 50,000.00 | - | 350,000.00 |
| 4 | Training for the Design teams | 20,000.00 |  | 20,000.00 |  |  | 40,000.00 |
| 5 | Training of Contractors and Supervising Engineers | 50,000.00 |  | 50,000.00 |  | 50,000.00 | 150,000.00 |
| 6 | Community leaders awareness raising and sensitization | 100,000.00 | 70,000.00 | 70,000.00 | 70,000.00 | 90,000.00 | 400,000.00 |
| 7 | Contingency for DLAs staff training | 10,000.00 | 10,000.00 | 10,000.00 | 10,000.00 | 10,000.00 | 50,000.00 |
|  | 5% Contingency |  |  |  |  |  | 45,000,00 |
|  | **Total Budget** | | | | | | **945,000.00** |

Table 10‑1: Cost Breakdown for ESMF Implementation

# REFERENCES AND BIBLIOGRAPHY

1. *Dar es salaam City Master plan, (2012 - 203[[24]](#footnote-24))*
2. *Environmental Management Act, 2004*
3. *Kigamboni Municipal Council Socio-Economic Profile 2019*
4. *Kinondoni Municipal Council Socio-Economic Profile 2018*
5. *Population and Housing Census, 2022*
6. *Temeke Municipal Council Socio-Economic Profile (updated), 2021*
7. *Ubungo Municipal Council Strategic Plan (2018/2019-2022/2023)*
8. *Waste Management Strategic Plan for KGMC, 2020*
9. *World Bank’s Environmental and Social Standards, 2018*

# APPENDICES

**APPENDIX I - Screening Form for Potential Environment and Social Issues**

**Screening Form for Potential Environmental and Social Issues**

This form is to be used by the executing agency and/or the Project Implementation Team (PIT) and relevant local institutions to screen potential environmental and social risk levels of a proposed subproject under the Project. The screening will determine the relevance of Bank environmental and social standards (ESS), propose its environment and social risk levels, and the instrument to be prepared for the sub project.

Screening forms will be updated prior to project implementation to have a form for each of the subcomponents in comp 1 and 2

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

| **Questions** | **Answer** | | | **ESS relevance** | **Due diligence / Actions if “yes”** |
| --- | --- | --- | --- | --- | --- |
| **Not**  **Applicable** | **Yes** | **No** |
| 1. Does the subproject involve civil works that include new/upgrading or rehabilitation of infrastructure |  |  |  | ESS 1 | ESIA and ESMP (Specific Environmental & Social Management Plans (C-ESMPs)) |
| 2. Is there sound regulatory framework, institutional capacity in place the sub-project? |  |  |  | ESS 1 | ESMP, SEP[[25]](#footnote-25) |
| 4. Does the subproject area present considerable Gender-Based Violence (GBV), Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH) risks? |  |  |  | ESS 2 | Assessment of risks and GBV/SEA action plan, SEP, ESMP |
| 5. 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 |
| 6. Does the subproject include an independent unit/or group for accountability and grievance and conflict resolution? |  |  |  | ESS 2 | ESMP, SEP, GRM[[26]](#footnote-26) |
| 7. Is the subproject associated with any external waste management facilities such as a sanitary landfill, incinerator, or wastewater treatment plant? |  |  |  | ESS3 | ESMP, WMP[[27]](#footnote-27), SEP |
| 8.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 |
| 9.Does the subproject result in GHG emissions or black carbons |  |  |  | ESS 3 | ESMP, SEP |
| 10. Does the subproject involve transboundary transportation of specimen, samples, infectious and hazardous materials? |  |  |  | ESS 3 | WMP, SEP |
| 11.Does the subproject use pesticides, and herbicides |  |  |  | ESS 3 | IPPMP[[28]](#footnote-28), ESMP |
| 12.Does the subproject has at least the necessary procedures for health and safety of its workers and its project affected people |  |  |  | ESS 4 | ESMP, OSHMP[[29]](#footnote-29), SEP |
|  |  |  |  |  |  |
| 13.Does the subproject require acquisition of land or result in temporary or permanent physical and/or economical displacement |  |  |  | ESS 5 | RAP[[30]](#footnote-30) |
| 15.Was a social assessment conducted or will be conducted to identify and address the potential economic and social impacts of the subproject cause by involuntary land acquisition or resettlement |  |  |  | ESS 5 | RAP |
| 16.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 Management Plan |
| 17. Is the subproject located within or in the vicinity of any ecologically sensitive areas? |  |  |  | ESS 6 | Ecosystem Management Plan, ESMP |
| 18.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 management Plan, ESMP |
| 19. Will the project result in change of land use |  |  |  | ESS 1, ESS 5 |  |
| 20. Will the project affect flora and fauna |  |  |  | ESS 1 |  |
| 21. Does the project involve significant generation of hazardous waste or significant waste water |  |  |  | ESS 1 |  |
| 19. 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 | Vulnerable Groups Planning Framework (VGPF) to inform sub-project Vulnerable Groups Plan (VGP), SEP |
| 20.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 |
| 21. Is the subproject located within or in the vicinity of any known cultural heritage sites? |  |  |  | ESS8 | ESIA/ESMP, SEP |
| 22.Will the subproject ensure that the that physical cultural resources (PCR) are appropriately preserved and their destruction or damage is appropriately avoided |  |  |  | ESS 8 | ESIA/ESMP, SEP and GRM  Apply chance find procedures for construction activities |
| 23.Did the proponent of the subproject carry out regular consultations with a wide range of project stakeholders |  |  |  | ESS10 | ESMP, SEP and GRM |
| 24.Can the stakeholders play a significant role in shaping or affecting the subproject, either positively or negatively |  |  |  | ESS 10 | SEP and GRM |

**Conclusions:**

1. Proposed Environmental and Social Risk Ratings (High, /Substantial, Moderate or Low).
2. Proposed environment and social Instruments.

Date of Report preparation …….

Name of responsible person …………

Date of site visit……...

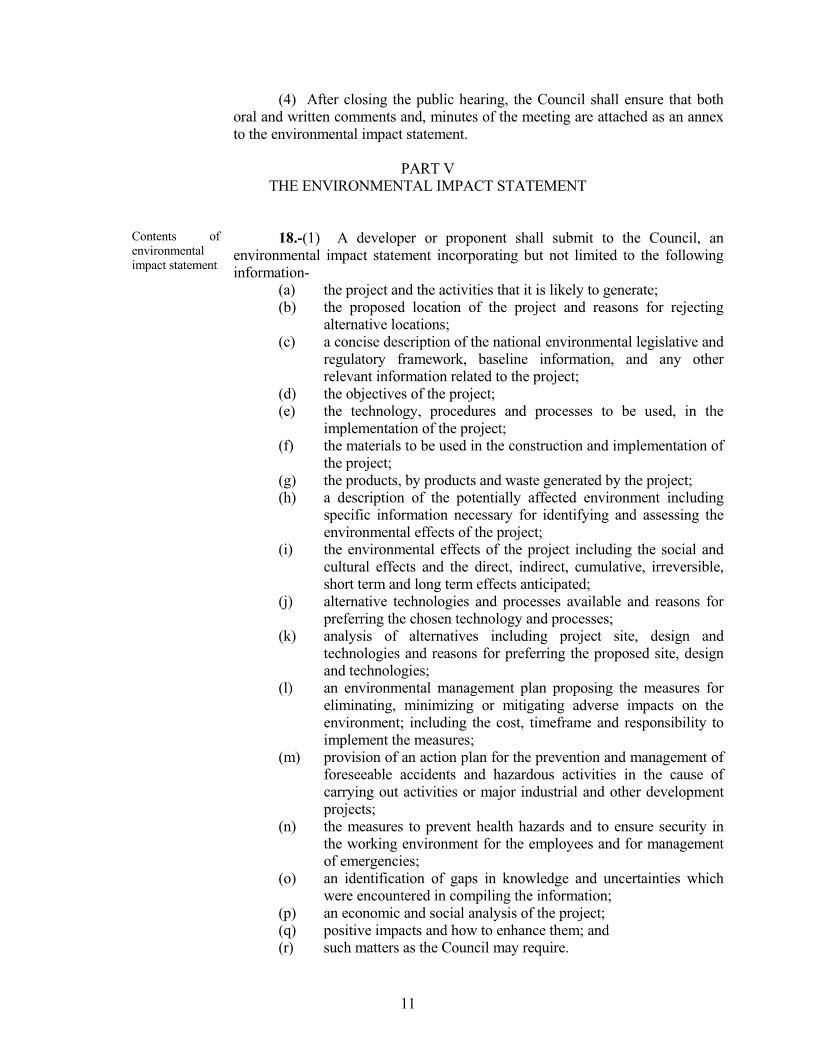
Date and person who approved …….

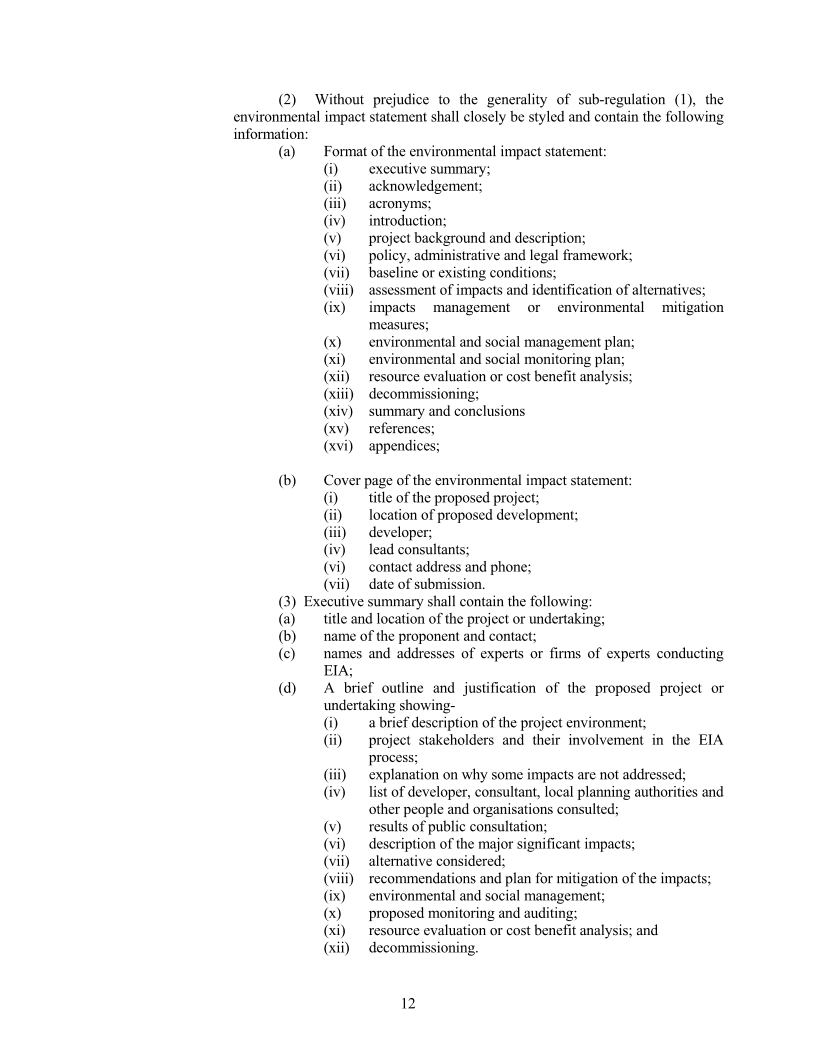
**APPENDIX II - Generic Environmental and Social Management Plan (ESMP) for different types of project activities under the Project**

This generic ESMP is to be only used for a limited set of subprojects and Environmental & Social risk levels.

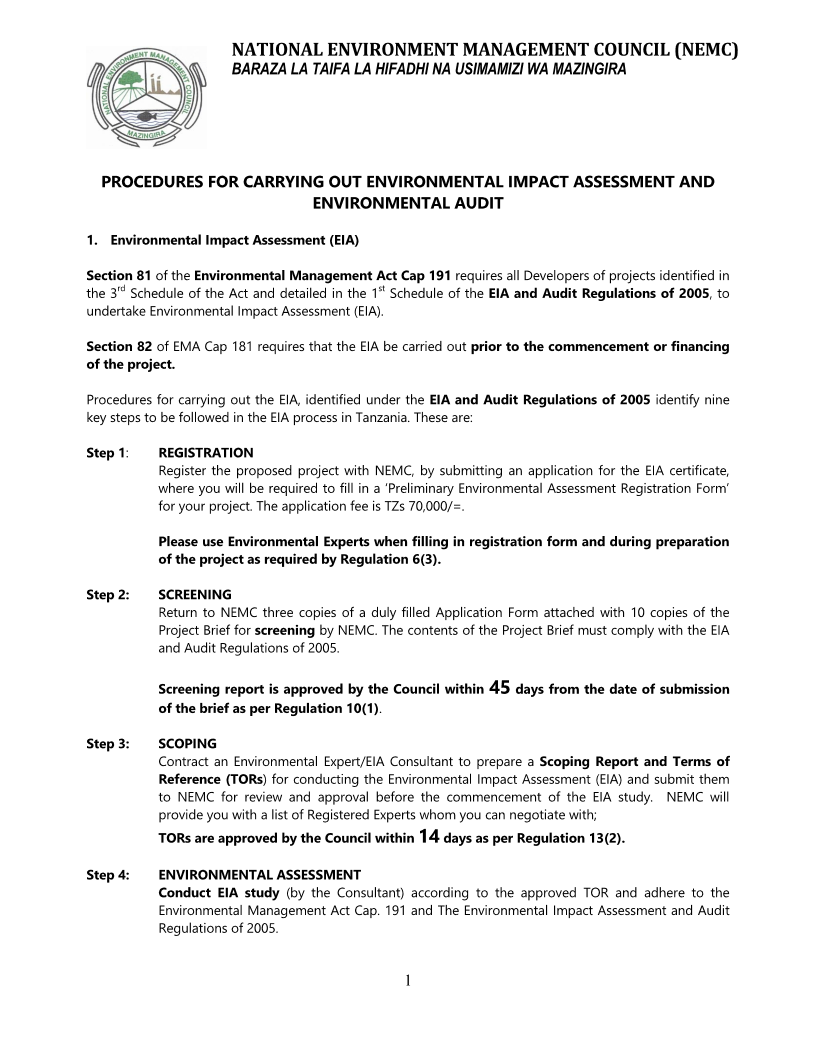
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Possible Impacts** | **Direct/Indirect** | **Cumulative** | **Mitigation Measures** | **Monitoring Measures** |
| **1.** | **Impacts from site design and location of solid waste facilities,**   1. Environmental Impact: 2. Air Quality: 3. Water Contamination: 4. Odor and Noise 5. Visual Impact 6. Traffic and Transportation: 7. Community Health and Well-being | Direct | **√** | * Site Selection Criteria: * Environmental Assessments: * Establish Buffer Zones: * Proper Site Design and Engineering: * Landscaping and Visual Screening: * Traffic Planning and Management: | * Waste composition analysis: * Waste volume monitoring: * Landfill gas monitoring: * Leachate monitoring: * Odor monitoring: |
| **2.** | **Impacts from Solid waste handling and storage**   * Air Pollution: * Water Contamination: * Soil Degradation: * Disease Transmission: * Aesthetic and Visual Impact: * Fire Hazard * Greenhouse Gas Emissions: | Direct | **√** | * Promoting source reduction and recycling * Implementing effective solid waste segregation programs * Educating the public on responsible solid waste disposal practices | 1. Regular Inspections:  2. Sampling and Analysis  3. Documentation and Record-Keeping:  4. Waste Tracking:  5. Environmental Monitoring: |
| **3.** | **Impact of Solid waste Transfer station**   * Traffic Congestion: * Air Pollution: * Water Contamination * Noise and Odor: * Aesthetic Impact: * Employment and Economic Benefits: | Direct | **√** | * Proper Site Selection and Design: * Waste Sorting and Segregation: * Odor and Dust Control: * Waste Handling and Storage: * Traffic Management: * Community Engagement: * Employee Training and Safety: * Environmental Monitoring: * Education and Awareness: * Continuous Improvement: | 1. Weighing Systems:  2. Odor Control:  3. Noise Monitoring:  4. Leachate Management:  5. Hazardous Material Handling:  6. Recycling and Sorting: |
|  | **Impact on Solid waste collection and transportation**   * Inadequate practices in solid waste collection and transportation * Littering * Illegal Dumping: Bottom of Form | Direct | **√** | * Public Awareness and Education:. * Promote responsible waste management practices, * Adequate Waste Collection Services: * Provide sufficient collection trucks, * Enforcement and Penalties: * Infrastructure and Facilities: * Surveillance and Monitoring: * Collaboration with Stakeholders: * Develop comprehensive strategies that involve multiple stakeholders to tackle these issues effectively. | 1. Visual inspections:  2. Weighing and tracking systems:  3. GPS and tracking technology:  4. Environmental monitoring:  5. Compliance audits: |
|  | **Landfill/disposal Siting** **facilities**   * Air Pollution: * Water Contamination: * Soil Degradation: * Respiratory Issues: * Waterborne Diseases: * Exposure to Hazardous Substances: * Decreased Property Values: * Land Use and Aesthetics: * Community Well-being: | Direct | **√** | * Proper Landfill Siting * Conduct Site geology and hydrogeology assessments; * : | 1. Landfill Gas Monitoring:  2. Leachate Monitoring:.  3. Groundwater Monitoring:  4. Surface Water Monitoring:  5. Air Quality Monitoring:  6. Noise and Vibration Monitoring:  7. Ecological Monitoring:  8. Compliance Monitoring: |
|  | **ROADS AND OTHER SUBPROJECTS** | | | | |
| **No** | **Possible Impacts** | **Direct/Indirect** | **Cumulative** | **Mitigation and Measures** | **Monitoring Measures** |
| **1** | Air Pollution | Direct | **√** | * + The appointed contractors will provide a site hoarding of 2.4m height along noise sensitive boundaries, at a minimum, at the Construction Compounds, which will assist in minimizing the potential for dust impacts off-site.   + Trucks will not be loaded over their carrying capacity.   + Truck load will also be covered to avoid the transportation of particulate matter.   + The accumulation of loose will not be allowed.   + Control The speed of motor vehicles and heavy equipment through the installation of signs in visible areas, warning the speed limit. | • The contractor and / or project inspector must outline a plan to make daily inspections.  Monitoring parameters:  Baseline calculations: |
| **2** | Impact from Noise and Vibration | Direct | **√** | * + put in place the most appropriate noise control measures   + fitting muffler or sound reducing equipment to the breaker ‘tool’ and ensuring any leaks in the air lines are sealed;   + Noisy items of plant or equipment will be sited away from noise sensitive boundaries;   + Erection of localized demountable enclosures or screens will be used around breakers or drill bits,   + provide a site hoarding of 2.4m height along noise sensitive boundaries,   + Construction activities will be scheduled | * + carry out noise monitoring at representative communities |
| **3** | Impact on Human Health | Direct | **√** | * + Access to all hospitals and schools will be maintained.   + The appointed contractors will put in place a Communications Plan. |  |
| **4** | Impact on Biodiversity | Direct | **√** | * + · Avoidance or modification of construction activities during the breeding season and other sensitive seasons or times of day to account for potentially negative effects; |  |
| **5** | Impact on Land, Soils, Geology and Hydrogeology | Direct | **√** | Loss or Damage of Topsoil   * + Excavated topsoils will be stockpiled to minimize the effects of weathering.   + All topsoil or subsoil shall be assessed for re-use   + Where practical the removal of topsoil from the project sites will be avoided.   + allow maximum opportunity for the reuse of materials on site. | sample the chemical, physical and biological condition of soils and ground water before start of project activities and regularly |
|  |  |  |  | Pollution of Soil and Groundwater   * + Deploy Good construction management practices   + Ensure that all areas where liquids (including fuel) are stored, are in designated impermeable areas   + Good housekeeping at the site   + Provision of proper containment of potential pollutants according to codes of best practice;   + Spill kit to be provided and to be kept close to the storage area. | sample the chemical, physical and biological condition of soils and ground water before start of project activities and regularly |
| **6** | Traffic Impacts | Direct | **√** | * + Setting of speed limits appropriate to the road and traffic conditions;   + Design of roadways to accommodate anticipated traffic volume and flow; Maintenance of the road to prevent mechanical failure of vehicles due to road conditions;   + Construction of roadside rest areas at strategic locations to minimize driver fatigue;   + Installation of measures to reduce collisions between animals and vehicles (e.g. use of signs to alert drivers on road segments where animals frequently cross; construction of animal crossing structures; installation of fencing along the roadway to direct animals toward crossing structures; and use of reflectors along the roadside to deter animal crossings at night when vehicles are approaching);   + · Targeting elimination of at-grade rail crossings;   + · Targeting the use of a real-time warning system with signage to warn drivers of congestion, accidents, adverse weather or road conditions, and other potential hazards ahead. Emergency Preparedness |  |
| **7** | Risk of Accidents | Direct | **√** | * + Adequate traffic control measures should be taken   + Sign board warning presence of open sewer trench   + Guard rails to protect pedestrians   + Strong safety policy for workers; protective helmets to be provided | Ensure provision of safety signs throughout the project cycle |
| **8** | Land Acquisition | Direct | **√** | * + Advance realistic payments to be made to affected population (estimation for compensation for land and property should be made on the prevailing market rates) | Timely compensation payments and resolution of grievances |
| **9** | OHS Impacts | Direct | **√** | * + All safety measures like use of safety appliances, such as dust masks, helmets, shoes, safety awareness programs, awards, posters, slogans related to safety etc.   + Training of employees for use of safety appliances and first aid in vocational training center.   + Regular maintenance and testing of all equipment as per manufacturers’ guidelines.   + Periodical Medical Examination (PME) of all workers by a medical officer.   + First Aid facility is provided at the mine site.   + Conduct Job safety analysis   + Hazard communication and training programs   + Training should incorporate information from Material Safety Data Sheets (MSDSs)   + Provision of suitable personal protection equipment (PPE)   + Facilities also should be designed and built taking into account the needs of disabled persons.   + Ensure provision of Potable Water Supply ·   + Safe Access · Passageways for pedestrians and vehicles within and outside buildings should be segregated   + Working at Heights Fall prevention and protection measures should be implemented   + The area around which elevated work is taking place should be barricaded to prevent unauthorized access.   + The fall protection system should be appropriate for the structure and necessary movements, including ascent, descent, and moving from point to point;   + · Installation of fixtures on bridge components to facilitate the use of fall protection systems;   + · Safety belts should be not less than 16 millimeters (mm) (5/8 inch) two-in-one nylon or material of equivalent strength. | Close surveillance of the factors in working environment and work practices which may affect environment and worker’s health. |
| **10** | Wastewater Generation | Indirect | **√** | * + Understand the quality, quantity, frequency and sources of liquid effluents in its installations.   + Plan and implement the segregation of liquid effluents   + Identify opportunities to prevent or reduce wastewater such measures as recycle/reuse within their facility,   + Assess compliance of their wastewater discharges with the applicable:   + · Water use efficiency to reduce the amount of wastewater generation | * + · Monitoring parameters: The parameters selected for monitoring should be indicative of the pollutants of concern from the process, and should include parameters that are regulated under compliance requirements;   + · |

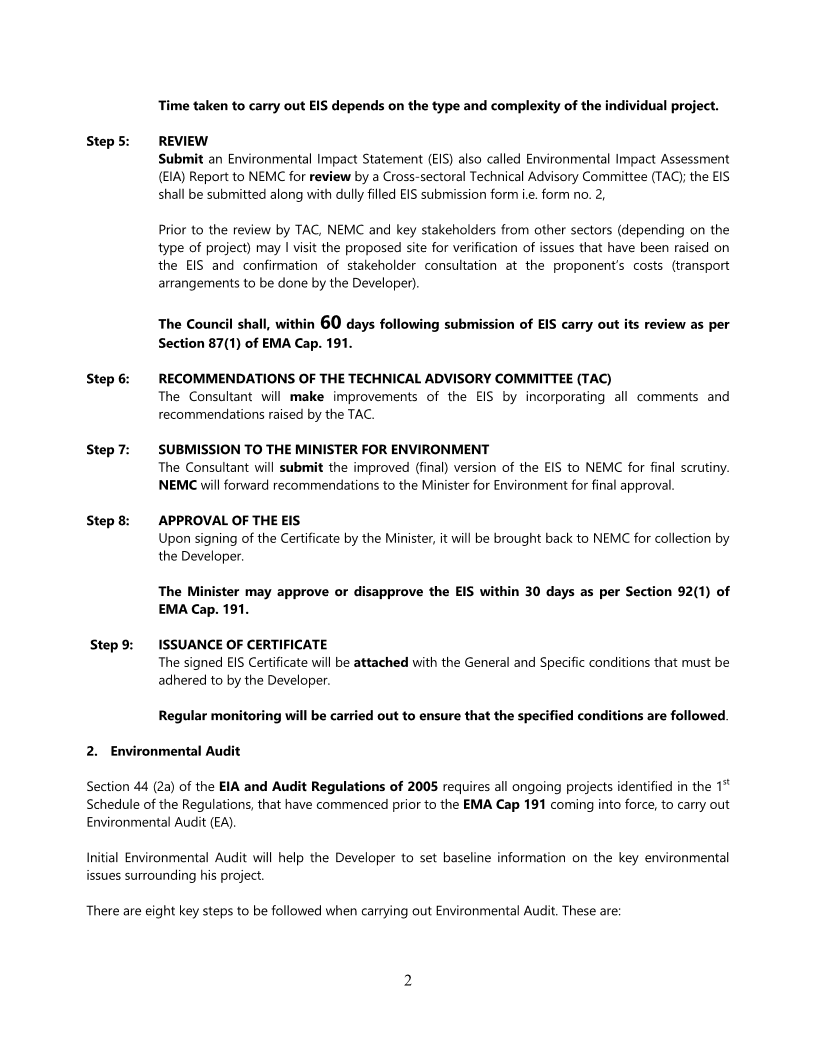
**APPENDIX III - Sample ESIA Outline for Sub-Projects.**

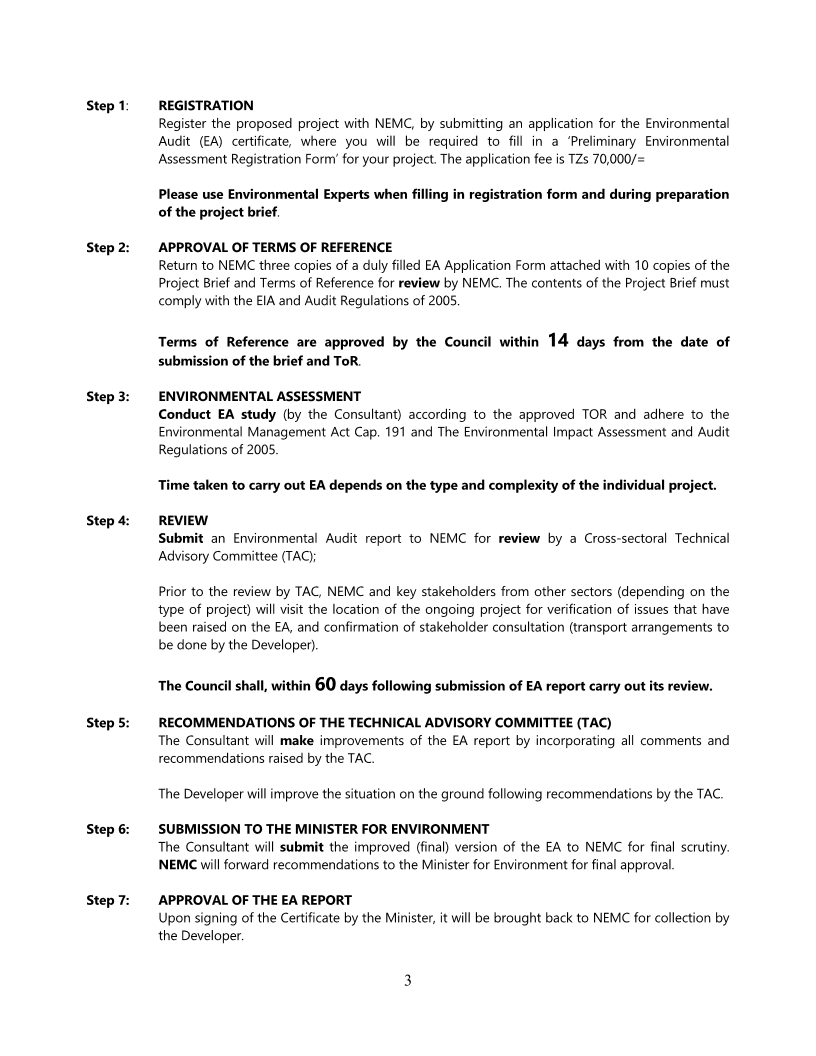


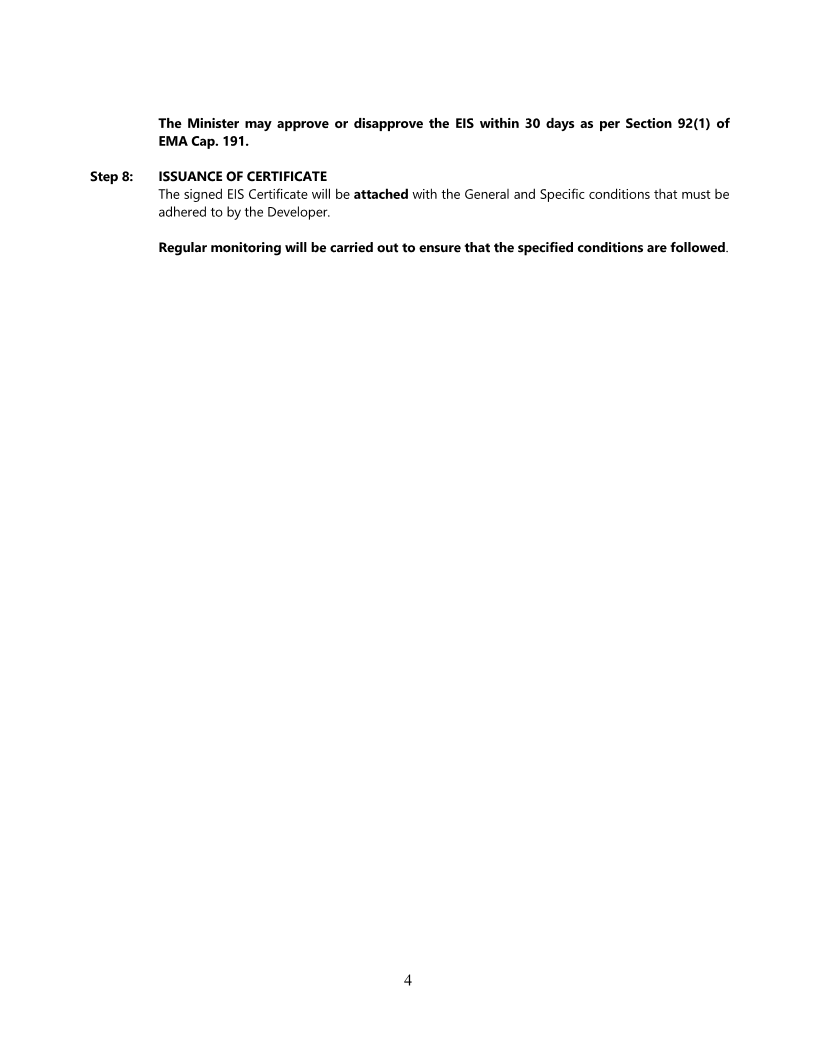


**APPENDIX IV – Procedures for Carrying Out ESIA in Tanzania**









**APPENDIX V - Sample of other Environmental and Social documents required during project implementation (TMP, ESMP etc.)**

**Indicative Outline of NEMC Scoping Report**

**Application Reference No…………………………………..**

**THE ENVIRONMENTAL MANAGEMENT ACT, CAP.191**

**SUBMISSION OF PROJECT BRIEF**

PART A

DETAILS OF PROPONENT/DEVELOPER

Name (Person or Firm)………………………………………………..

TIN ………………………………………………………………………………

Physical

Address……………………………………………………………………………..

Name of contact person……………………………………………………………..

Telephone No. ………………………. Fax No. ………………………………………….

E-mail address ……………………………………………………………………………….

**PART B**

**DETAILS OF THE PROJECT**

1. **PROPOSED UNDERTAKING/DEVELOPMENT**
2. Title of Proposal (general classification of undertaking);
3. description of Proposal (nature of undertaking, unit processes [flow diagram], raw materials, list of chemicals; {source, types and quantities}, storage facilities, wastes/by-products {solid, liquid and gaseous) and their management;
4. scope of Proposed Project (size of labor force and working hours, equipment and machinery, installed/production capacity, product type, area covered facility/proposal, market);
5. project cost; and
6. technology to be used.
7. **PROPOSED SITE DESCRIPTION**
8. proof of land ownership;
9. location : Administrative Location and Latitude and Longitude;
10. attach a site layout plan and location maps;
11. current zoning;
12. distance to nearest residential and/or other facilities;
13. adjacent land uses (existing & proposed);
14. a declaration that the project site is not within or near the sensitive ecosystem/areas (e.g. water bodies, protected areas, schools, public utilities and defense strategic areas); and
15. land Acquisition Process (Relocation or Compensation) attach Resettlement Action Plan.
16. **INFRASTRUCTURE AND UTILITIES**
17. Structures (buildings and other facilities);
18. Land required;
19. Water (source, quantity;
20. Power (type, source & quantity);
21. Road;
22. Other major utilities (e.g. sewerage, etc.).
23. **ENVIRONMENTAL IMPACTS**
24. potential environmental effects of proposed undertaking (both construction, operation and decommission phases);
25. project alternatives (site, design and/or technology).
26. **OTHER ENVIRONMENTAL ISSUES**
27. potential significant risks and hazards associated with the proposed project (including occupational health and safety) and its Emergence Preparedness and Response Plan; and
28. state briefly relevant environmental studies already done and attach copies as appropriate.
29. **METHODOLOGIES OF CONDUCTING THE SCOPING EXERCISE**
30. **SYNTHESIS OF THE RESULTS OF THE SCOPING**
31. **STAKEHOLDERS INVOLVEMENT**
32. **PROJECT ALTERNATIVES**
33. **ENVIRONMENTAL MANAGEMENT PLAN**
34. **MONITORING PLAN**
35. **DECOMMISSIONING PLAN**

**PART C**

**DECLARATION BY THE PROPONENT**

I hereby certify that the particulars given above are correct and true to the best of my knowledge.

Name……………………………..................

Position………………………………………….

Signature…………………………..

On behalf of………………………..

Date……………………………………

(Firm name and Seal)

**PART D**

**DETAILS OF ENVIRONMENTAL IMPACT ASSESSMENT EXPERT**

Name (individual/firm)……………………………………………………………..

Certificate of registration No………………………………………………………..

Address………………………………………………………………………………

Tel……………………..Fax……….…………..….e-mail………………………….

**PART D**

**DETAILS OF ENVIRONMENTAL IMPACT ASSESSMENT EXPERT**

Name (individual/firm)……………………………………………………………..

Certificate of registration No………………………………………………………..

Address………………………………………………………………………………

Tel……………………..Fax……….…………..….e-mail………………………….

**PART E**

**FOR OFFICIAL USE**

Decision of the Council…………………………………………………………..

Comments …………………………………………………………………………...

……………………………………………………………………………………..

………………………………………………………………………………………

Officer…………………………….Sign……………………Date………………….

NB:

1. If the Project Brief does not contain sufficient information required under the Environmental Impact Assessment and Audit Regulations the applicant may be required to conduct an environmental impact assessment study.

2. Any person who fraudulently makes a false statement in a project report or alters the project report commits an offence.

Important notices: Please submit the following:

(a) three copies of the project brief;

(b) the prescribed fee to the Director General, of the National Environment

Management Council, Plot No.28, 29 & 30 Regent Street,

P.O. Box ……………,

11404 Dar es Salaam.

Tel ……………………………….. Fax………………...

e-mail ……………

Form No. 5

Serial No…………………………..

**APPENDIX VI – CONTENTS OF C-ESMP DMDP II Project**

LIST OF ACRONYMS

EXCUTIVE SUMMARY

* Project background
* Project Objective
* Project Components
* Subproject Description

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

* Introduction
* Purpose Of The ESMP
* The ESMP: Aims And Objectives Of The ESMP
* Legislative And Policy Considerations
* Summary Of Environmental And Social Impacts
* Potential Negative Environmental impacts
* Potential Negative Social impacts
* Labour Influx risk assessment

ENVIRONMENTAL AND SOCIAL MANAGEMENT

* ESMP Cost
* Environmental and Social Management Plan
* Pre-Construction Phase
* Construction Phase
* Operational and Maintenance Phase

IMPLEMENTATION OF THE ESMP

STAKEHOLDER ENGAGEMENT ACTIVITIES

GRIEVANCE REDRESS MECHANISM

ESMP MONITORING

* Introduction
* Reporting Procedure

CAPACITY BUILDING

DISCLOSURE

TRAINING

**APPENDIX VII – INDICATIVE ToR FOR E&S SUPERVISING CONSULTANT/ENGINEER**

These terms of reference are for the Supervision Engineer/Consultant as part of the construction of any subproject under the DMDP II Project. Environmental and Social Supervision should be a continuous process during the construction of the Project. The Contractor has the responsibility to comply with the Environmental and Social Management Plan (ESMP) of the Project and contractual requirements while undertaking the works. This is overseen by the Supervision Engineer/Consultant. In order to achieve the goal of minimizing the negative environmental and social impacts of the project, the ESMP has to be integrated in the design of the Project, and in the technical specifications and contract documents. It will need to be closely followed and supervised by the Supervision Engineer/Consultant.

* + 1. Objective of the Assignment

The general services to be provided by the Supervision Engineer/Consultant are:

• Inspect, monitor and audit construction activities to ensure that Environmental and Social Specifications established in the Contractor’s Environmental and Social Management Plan (C-ESMP) of the Project and E&S Specifications for contractors are implemented effectively;

• Ensure that Contractors comply with the laws and regulations of a country and the contractual requirements;

• Ensure that the negative impacts are minimized;

• Provide environmental training to all actors involved in the construction activities.

* + 1. Scope of Services

The Supervision Engineer/Consultant is expected to perform the following duties: Initiation of the Supervision Works and Review of Project Documents The Supervision Engineer/Consultant shall initiate the supervision works at least in advance before the start of the construction activities. The Supervision Engineer/Consultant should use this time to become familiar with the Project designs, the technical specifications, contract documents, the plans to carry out the construction works, the ESMP, the C-ESMPs, the Laws and Regulations of the country and any other document that is relevant to the Project. In general, the objectives of this phase are: (I) review the ESIAs, ESMP, project designs and technical specifications and confirm that there have been no major omissions of mitigation measures; (ii) prepare guidelines for Contractors on implementing the ESMP; and, (iii) develop and execute training programs for all involved in construction activities. The main tasks in this phase are:

**Review of Project Documents**: The Supervision Engineer/Consultant shall review the ESIA, ESMP, project designs, technical specifications and contractual requirements to determine that there have been no major omissions of mitigation measures. Following the review, the Supervision Engineer/Consultant shall prepare a brief report on the potential issues and challenges arising from the implementation of the ESIA/ESMP, condition of contracts and make recommendations to the PIU about how best to improve the implementation of the ESIA/ESMP. Once the changes are approved by the PIU the Supervision Engineer/Consultant shall update the ESMP.

**Environmental Supervision Checklist:** The Supervision Engineer/Consultant shall establish checklists which will be used during the construction of the project to monitor the Contractor’s performance. This shall cover major aspects of the project, required mitigation/control measures and their implementation schedule.

**Log-Book:** The Supervision Engineer/Consultant shall keep a log-book of each and every circumstance or change of circumstances which may affect the E&S management and non-compliance with the recommendations made by the Supervision Engineer/Consultant to remediate the non-compliance. The logbook shall be kept readily available for inspection by all persons assisting in the supervision of the implementation of the recommendations made in the ESIA and ESMP.

**Site Inspections:** The Supervision Engineer/Consultant shall carry out visits of site prior to commencement of construction activities and give its no objection. These sites shall include among others, quarries, stockpiles, borrow pits, disposal sites, location of workers’ camps, access roads, storage of explosives, hazardous materials, fuels, maintenance areas, etc. The Supervision Engineer/Consultant should take advantage of these visits to take pictures of the places visited.

**Blasting (If applicable)**

The Supervision Engineer/Consultant will approve the blasting sites and blasting schedule of the contractor. Supervision Engineer/Consultant will ensure the contractor takes all necessary precautions to prevent damage to special features and the general environment and that he notifies any occupants / owners of surrounding land and adequately addresses any concerns that they may have.

**Environmental and Social Training:** The Supervision Engineer/Consultant shall design and execute a training program for all the Contractor’s workers, PIU, and all staff involved on the environmental and Social requirements of the Project, and how they will be supervised, monitored and audited, giving particular attention to:

• ESMP: The requirements of the ESMP and E&S specifications. Particular attention will be paid to the specific provisions in each contract’s technical specifications indicating how the ESMP is to be complied with.

• Health and Safety: The health and safety requirements of the project shall be clearly identified and communicated (included in environmental specifications for contractors). • Laws and regulations: explanation of the relevant environmental requirements as stipulated in the environmental legislation, standards and regulations of Tanzania and the contract specifications.

• Code of Conduct: All construction workers (permanent or temporary) will have to sign and should be educated on the following issues but not limited to them: firearm possession, traffic regulations, illegal logging and collection of non-timber forestry products, non-disturbance of communities, hunting and fishing restrictions, waste management, protection of surface water, erosion control, all prohibited activities, the Code of Conduct requirements and disciplinary procedures, general information on the environment in which they will be working and living; and establishment of penalties for those who violate the rules.

The training programs shall be carried out before the start of the construction activities and every time new workers or Contractors are hired to inform them of the problems identified and to indicate how to improve environmental and social performance and compliance.

At the conclusion of the training, all attendees shall sign a statement acknowledging their understanding of the environmental regulations, the ESMP, the health and safety obligations and the Code of Conduct. The Supervision Engineer/Consultant shall sign a similar statement confirming their understanding of the supervision responsibilities.

Supervision of Construction Activities

The Supervision Engineer/Consultant shall:

• Review, and inspect in an independent, objective and professional manner in all aspects of the implementation of the ESIA, ESMP and contractor management plans;

• Carry out random monitoring checks, and review records prepared by Contractors; • Conduct regular site inspections;

• Review the status of implementation of environmental and social protection measures against the ESMP, and contract documents;

• Review the effectiveness of environmental and social mitigation measures and project environmental and social performance;

• As needed, review the environmental acceptability of the construction methodology (both temporary and permanent works), relevant design plans and submissions. Where necessary, the Supervision Engineer/Consultant shall seek and recommend the least environmental and social impact alternative in consultation with the designer, the Contractor(s), and the PIU;

• Verify the investigation results of any non-compliance of the environmental and social quality performance and the effectiveness of corrective measures;

• Provide regular feedback audit results to the PIU according to the procedures of non-compliance in the ESMP;

• Instruct the Contractor(s) to take remedial actions within a specified timeframe, and carry out additional monitoring, if required, according to the contractual requirements and procedures in the event of non-compliances or complaints;

• Instruct the Contractor(s) to take actions to reduce impacts and follow the required ESMP procedures in case of non-compliance / discrepancies identified;

• Instruct the Contractor(s) to stop activities which generate adverse impacts, and/or when the Contractor(s) fails to implement the ESMP requirements / remedial actions instructed by the Supervision Engineer/Consultant;

• The Supervision Engineer/Consultant shall also regularly review the contractor’s records to ensure that they are up to date, factual and meet the ESMP reporting requirements (e.g. environmental and social complaint monitoring records).

Review of Site Plans:

The Supervision Engineer/Consultant shall review and finally clear all site plans which may affect the environment. The Supervision Engineer/Consultant shall review and approve the Contractor’s E&S management plans. Where these plans are found not to comply with the ESMP, the Supervision Engineer/Consultant shall work with the PIU and Contractors to find a solution.

Health and Safety:

The Supervision Engineer/Consultant shall review and clear Contractors’ Health and Safety Plans. These Plans shall include procedures such as management of explosions, safety during construction, the prevention of soil erosion during the rainfall season, etc. These plans shall be updated upon change in legislation, change in scope of work, change in management system structure, change after audit findings and at least once a year.

The Supervision Engineer/Consultant shall ensure compliance with requirements of the health and safety clauses in the contract documents and involve Health and Safety Manager/Supervisor in supervising OHS compliance by contractor during construction. This shall include, but not be limited to: (I) construction activities; (ii) HIV/AIDS and COVID-19; (iii) compliance with National Labor Laws; and (iv) road traffic safety.

In case of any incidents or accidents, the Supervision Engineer/Consultant should immediately notify the PIU, which is required to notify the World Bank of the occurrence of the incident within 24 hours.

Site Inspections:

The Supervision Engineer/Consultant shall closely monitor the construction activities through regular site inspections accomplished through daily site visits, walks and visual inspections to identify areas of potential environmental and social problems and concerns. As noted in footnote 1 of this ToR, the area of inspection should cover both the construction areas and the environment outside the site area that could be affected, directly or indirectly, by the contractor’s activities. Inspections should be done independently from the Contractor’s staff. Where definitive monitoring is necessary to resolve contentious issues or to impose penalties, the Supervision Engineer/Consultant may contract third parties to carry out specific monitoring at the locations under review. Where there is infringement of technical specifications, or condition of contracts, or non-compliance with the ESMP, the Supervision Engineer/Consultant shall immediately inform the Contractor. The Supervision Engineer/Consultant shall also report all infringements to the PIU as part of the monthly reporting. Regular joint environmental and social site inspections (e.g. weekly) should be organized by the Supervision Engineer/Consultant with the Contractor’s staff. These should be used as an opportunity for the Supervision Engineer/Consultant to further train the Contractor’s staff.

Complaints:

Complaints could be received by the Contractor’s Site Office from local residents with regard to environmental infractions such as noise, dust, traffic safety, etc. The Contractor’s Environmental Officer shall be responsible for processing, addressing or reaching solutions for complaints brought to them. The Supervision Engineer/Consultant shall be provided with a copy of these complaints and shall confirm that they are properly addressed by the Contractor in the same manner as incidents identified during site inspections.

Unforeseen Impacts:

In the event that an incident arises which was not foreseen in the ESMP, the Supervision Engineer/Consultant shall work closely with Contractors and the PIU to reach a satisfactory resolution to the incident. The Supervision Engineer/Consultant shall then update the ESMP, the implementation guidelines and train the Contractors’ staff accordingly.

Site restoration and Landscaping

Before completion of construction activities, the Contractor shall submit to the Supervision Engineer/Consultant, for its approval, a Site Decommissioning and Restoration Plan including cleaning, landscaping and re-vegetation of areas affected by the Project. The Supervision Engineer/Consultant shall closely monitor all activities related to the restoration, re-vegetation and landscaping of places such as borrow pits, quarries, disposal sites, worker’s camps, storage and maintenance areas, river banks, slopes, erosion-prone areas, etc., to ensure compliance with the ESMP and that the activities are performed according to appropriate and acceptable standards.

Staffing

The Supervision Engineer/Consultant shall retain at all times trained personnel with adequate knowledge on protection of environmental and social issues in construction projects and be able to supervise the Contractor’s performance. One staff member should have specific qualifications and be designated as Health and Safety Supervisor. The personnel should have the qualifications indicated below.

|  |  |  |  |
| --- | --- | --- | --- |
| Position | Qualifications | Total Work Experience (yrs) | Experience in similar works and position |
| Environmental Expert | Degree in environmental Engineering or equivalent and registered with NEMC as a Consulting Environmental Expert | 10 | 5 |
| Social Expert | Degree in social sciences or equivalent and registered with Tanzania Association of Social Workers (TASWO) and/or NEMC. | 10 | 5 |
| Occupational Health and Safety Expert | Degree in environmental health sciences or health and safety engineering or related disciplines with internationally-recognized OHS certification. | 10 | 5 |

Equipment

The Supervision Engineer/Consultant will have their own monitoring equipment such as hand held and portable monitoring equipment, cameras, gas detection equipment, motor vehicles and all resources necessary to carry out supervision of the Project. The Supervision Engineer/Consultant shall also have office equipment such as computers, fax, scanners, etc.

Reporting

As a minimum the Supervision Engineer/Consultant shall prepare the following written reports:

* Weekly report of non-compliance issues;

• Summary monthly report covering key issues and findings from reviewing and supervision activities;

• Consolidated summary report from contractor’s monthly report; and

• Collect and report on data as requested by the PIU

At the end of the project the Supervision Engineer/Consultant shall prepare a final report summarizing the key findings from their work, the number of infringements, resolutions, etc. as well as advice and guidance for how such assignments should be conducted in the future.

**APPENDIX VIII: Indicative Outline of ESA Report**

The aim of the audit is to identify significant environmental and social issues in the existing project or activities, and assess their current status, specifically in terms of meeting the requirements of the ESSs and Tanzania’s EIA and Audit Regulations of 2005 and Amendments of 2018.

* 1. Executive Summary
* Concisely discusses significant findings and sets out recommended measures and actions and timeframes.
  1. Legal and Institutional Framework
* Analyzes the legal and institutional framework for the existing project or activities, including the issues set out in ESS1, paragraph 26, and (where relevant) any applicable environmental and social requirements of existing financiers.
  1. Project Description
* Concisely describes the existing project or activities, and the geographic, environmental, social, and temporal context and any Associated Facilities.
* Identifies the existence of any plans already developed to address specific environmental and social risks and impacts (e.g., land acquisition or resettlement plan, cultural heritage plan, biodiversity plan).
* Includes a map of sufficient detail, showing the site of the existing project or activities and the proposed site for the proposed project.
  1. Environmental and Social Issues Associated with the Existing Project or Activities
* The review will consider the key risks and impacts relating to the existing project or activities. This will cover the risks and impacts identified in ESSs1–10, as relevant to the existing project or activities. The audit will also review issues not covered by the ESSs, to the extent that they represent key risks and impacts in the circumstances of the project.

* 1. Environmental and Social Analysis
* The audit will also assess (i) the potential impacts of the proposed project (taking into account the findings of the audit with regard to the existing project or activities); and (ii) the ability of the proposed project to meet the requirements of the ESSs.
  1. Proposed Environmental and Social Measures
* Based on the findings of the audit, this section will set out the suggested measures to address such findings. These measures will be included in the Environmental and Social Commitment Plan (ESCP) for the proposed Project. Measures typically covered under this section include the following:
* specific actions required to meet the requirements of the ESSs
* corrective measures and actions to mitigate potentially significant environmental and/or social risks and impacts associated with the existing project or activities
* measures to avoid or mitigate any potential adverse environmental and social risks or impacts associated with the proposed project.

**Appendix IX: E&S 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 DMDP II.

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 DMDP II, the Contractor and his employees shall adhere to the mitigation measures set down in:

* ESIA
* Contractor’s ESMP specifications, procedures, and best practices included in this Annex. These specifications complement any technical specifications included in the work quantities and the requirements of Tanzanian regulations
* Contractor’s ESMP: The Contractor is required to submit a construction ESMP (CESMP)) as part of his proposed Construction Method Statements prepared as part of his 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 stage 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 Contractor’s 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 DMDP II 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/village 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 Tanzania;
* 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;

• 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 standards27 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 box 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 arrangement shall be prescribed to make motor transport available to carry 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.
* o 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***

Some 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.

**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 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 chiseling 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;

• 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, night time operations shall be kept to a minimum and banned near sensitive receptors;

• No blasting shall be allowed during night time unless prior approval is obtained from the government authority and the Supervision Engineer/Consultant;

• The Contractor shall maintain the construction equipment in its best operating conditions and lowest noise levels possible. Re-

***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;

• 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; • 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; • 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); • 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; • 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; • 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; • 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; • 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; • 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; • 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 TACTIC 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 musk 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 with regard to 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 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; and • All sites should be cleaned of debris and all excess materials properly disposed; • Borrow pits should be restored prior to formal contract closure.

**Appendix X: GUIDELINES FOR PREPARATION OF TMP FOR CONSTRUCTION PROJECTS**

GENERAL INFORMATION

A Traffic Management Plan (TMP) must be developed and submitted in advance of construction work. In general, a TMP is required for all projects that could have an impact on:

• MOBILITY - including interruptions to pedestrians, cyclists and vehicular traffic; and

• the COMMUNITY - including interruptions to surrounding businesses and residents from construction activity and worker parking needs.

The objective of a TMP is to provide safe passage for pedestrians, cyclists and vehicular traffic around a construction site with as little inconvenience and delay as possible and with minimal on street parking removal.

2. COMPONENTS OF A TMP

2.1 Project Details and Schedule

The purpose of this section is to describe the project from mobilization to completion or demobilization.

• Describe the work to be performed (in case of multiple phases, describe each phase).

• Define scope of area that will be affected by construction activities.

• Describe the location and length of the proposed on-street building zone.

• Provide sequence of construction operations.

• Describe when each phase will commence and finish.

• Provide duration of work.

• Note proposed hours of work activity on the site.

• Provide primary contractor’s name, address, phone number as well as the 24-hour contact for the contact person representing the applicant.

2.2 Mobility Impact

The purpose of this section is to describe how the project will impact road users, and what measures should be provided to mitigate these impacts.

• Describe the impact of construction activities on pedestrians, disabled persons, cyclists, transit service, emergency vehicles, trucks and general-purpose traffic.

• For each impact identified above, describe the mitigation measure(s) that are proposed to minimize inconvenience and delay.

• Include any necessary plans to demonstrate how safety concerns for cyclist and pedestrians will be mitigated with any proposed pedestrian/cycling facilities closure. The North Vancouver Bicycle Plan includes a network of dedicated bicycle routes to encourage cycling. These routes are very important for cyclists and every effort should be made to allow safe passage through construction zones.

• For construction activities that require a road closure and require that transit service and/or emergency vehicle service be rerouted, the applicant must provide written approval from the appropriate agencies on the proposed plan and mitigation measures.

• Describe the number of truck trips that the site will generate on an hourly and daily basis, for each phase of construction.

• Describe the truck route(s) that are proposed to be used to and from the site - designated truck route map can be drawn and annexed.

2.3 Community Impact (Parking)

The purpose of this section is to describe how construction activities will impact parking (loss and/or increased need). The use of on-street parking to accommodate construction site needs is not appropriate, given the associated impact on residents and businesses.

• For each phase of construction, provide an estimate of how many construction worker vehicles (personal vehicles) will be generated by site activity.

• For each phase of construction, describe how the parking demand will be met.

• If parking for construction workers cannot be provided on the project site, alternate strategies must be described in the TMP. Applicant should undertake a review of nearby public parkades and parking lots, private parking lots that may be leased, provision of a vanpool/carpool program for construction workers, shuttle van to off-site parking, etc. TMP must include how the applicant will ensure that construction workers will not impact public street parking. Note that any expense resulting from the parking arrangements will be borne by the applicant.

2.4 Work Zone Traffic Control Devices

• Contractors must prepare a Traffic Control Plan (TCP) drawing by providing a detail map/drawing showing all signage and spacing. The TCP must show applicable pavement markings, vertical signs, delineation devices, channelization devices and traffic control persons. The building zones, site access and wheel wash location should also be shown.

• For projects with multiple phases, separate TCPs must be submitted for each distinct phase and it has to include all types of anticipated street closures.

• The Traffic Control Plan must be in accordance with A Guide to Traffic Signing (URT, 2009).

2.5 Communication Plan

The purpose of this section is to illustrate how the applicant will inform stakeholders of anticipated project impacts. A detailed Communication Plan should include the following elements:

• A list or map describing affected agencies, businesses, residents and property owners that will be contacted and informed about the project.

• A sample letter/notice that will be distributed to stakeholders prior to commencement of construction (a sample letter is given below).

1. The project investments are those under the jurisdiction of local government authorities which include upgrading, rehabilitation and reconstruction of “District Roads” which are secondary roads that include collector roads; feeder roads and community roads. It will not invest in regional or trunk roads which are out of the jurisdiction of the local government authorities. [↑](#footnote-ref-1)
2. “Daladalas” are public mini-buses. [↑](#footnote-ref-2)
3. The project investments are those under the jurisdiction of local government authorities which include upgrading, rehabilitation and reconstruction of “District Roads” which are secondary roads that include collector roads; feeder roads and community roads. It will not invest in regional or trunk roads which are out of the jurisdiction of the local government authorities. [↑](#footnote-ref-3)
4. “Daladalas” are public mini-buses. [↑](#footnote-ref-4)
5. Complete Streets is a road planning and design approach centered around people and sustainability instead of private motor vehicles. Complete Streets accommodate users of different abilities and modes of transport, and provide space for public transit, pedestrians, cyclists, e-mobility, drainage and trees. [↑](#footnote-ref-5)
6. Sustainable urban drainage systems (SUDs) are drainage systems that copy nature, by managing precipitation and surface water where it falls. SUDS slows down surface water to allow it to be stored for reuse, evaporated, or transpired through vegetation, or naturally drain into watercourses and groundwater. [↑](#footnote-ref-6)
7. Drainage and Sanitation Development Plan (DSDP), Presidents Office – Regional Administration and Local Government, 2018. [↑](#footnote-ref-7)
8. Approximately 150 km of stand-alone drains are anticipated to be V-shaped cement channels 2-3 meters in height with natural and green drainage features integrated or included in areas. [↑](#footnote-ref-8)
9. Water detention and infiltration basis are natural detention areas of less than 10 ha with 1-2 meter embankments and and overflow channel or pipe. [↑](#footnote-ref-9)
10. [↑](#footnote-ref-10)
11. A pre-feasibility study covering legal, financial and organizational considerations was undertaken to identify the institutional approach. The institution is proposed to be a public company owned by the Dar es Salaam Local Authorities through an intermunicipal organization. It would have the mandate to operate those services with facilities shared among municipalities (transfer and transfer, disposal, centralized sorting of recyclables and composting) through private sector contracts, undertake planning and establish standards, tariffs and provide capacity building to the Dar es Salaam Local Government Authorities. [↑](#footnote-ref-11)
12. . The Dar es Salaam City Master Plan (2016-2036) identified four landfill sites for development and proposed they be combined with transfer stations and recycling/composting facilities. A preliminary analysis supports the proposal that a combination of transfer stations, recycling/composting facilities and multiple landfills will provide an integrated solid waste management system that will help overcome the transport limitations currently affecting waste collection and disposal services in Dar es Salaam. Before finalization of the sites an assessment of site suitability and transport costs and GHG emissions will be completed using the landfill sites proposed in the Master Plan and additional identified sites and in combination with transfer station and recycling/composting sites. [↑](#footnote-ref-12)
13. A self-organized group of 500 people work collecting recyclables on the Pugu dumpsite, many of which live near the dumpsite. A livelihood program will be developed for these groups as part of the project. Informal recyclers also productively work on the street of Dar es Salaam collecting bottles and other items of value. The collection and recycling system will be designed to incorporate them and their important role in the solid waste system in the city. This will be done in coordination with ongoing initiatives by the government and NGOs on registering informal waste collectors. [↑](#footnote-ref-13)
14. Part 1.1 Background and Part 1.2 Situation Analysis. [↑](#footnote-ref-14)
15. Edson Sanaga and D. Mbisso, 2020; Sense of Place and Placelessness of Urban Open Spaces in Dar es Salaam [↑](#footnote-ref-15)
16. Dar Es Salaam Master Plan 2012 – 2032. Dodi Moss, Buro Happold, Afri Arch, QConsult, March 2012. [↑](#footnote-ref-16)
17. https://www.inaturalist.org/places/temeke-tz-ds-tza [↑](#footnote-ref-17)
18. Tanzania Strategic Cities Project (TSCP) Environmental Impact Statement of the Proposed Rehabilitation/Improvement of Surface Water Drainage System in Kinondoni Municipality, Dar Es Salaam Region [↑](#footnote-ref-18)
19. Kinondoni Municipal Profile, 2018 [↑](#footnote-ref-19)
20. Myers, N., Mittermeier, R.A., Mittermeier, C.G., da Fonseca, G.A.B. & Kent, J., 2000.Biodiversity hotspots for conservation priorities. Nature 403: 853-858. [↑](#footnote-ref-20)
21. Mato R.R.A.M. (2002) – Groundwater Pollution in Urban Dar es Salaam, Tanzania. Assessing Vulnerability and Protection Priorities. Eindhoven University of Technology. ISBN: 90-386-

    2913-3. [↑](#footnote-ref-21)
22. DDR outline is provided in the project RPF [↑](#footnote-ref-22)
23. DDR outline is provided in the project RPF [↑](#footnote-ref-23)
24. Dar Es Salaam Master Plan 2012 – 2032. Dodi Moss, Buro Happold, Afri Arch, QConsult, March 2012. [↑](#footnote-ref-24)
25. SEP: Stakeholder Engagement Plan [↑](#footnote-ref-25)
26. GRM: Grievance and redress Mechanism [↑](#footnote-ref-26)
27. WMP: Waste management Plan [↑](#footnote-ref-27)
28. [↑](#footnote-ref-28)
29. [↑](#footnote-ref-29)
30. [↑](#footnote-ref-30)