THE REVOLUTIONARY GOVERNMENT OF ZANZIBAR



MINISTRY OF HEALTH

DRAFT

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK FOR INVESTING IN PEOPLES' WELL-BEING FOR ECONOMIC DEVELOPMENT (IPW4ED)-PROJECT

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ACRONYMS

PHCU+ - Health Care Unit plus MOH - Ministry of Health

IPW4ED - Investing in Peoples' well-being for Economic Development

PS - Permanent Secretary
PCU - Project Coordination Unit
M&E - Monitoring and Evaluation

RGoZ - Revolutionary Government of Zanzibar

SDGs - Sustainable Development Goals

CEMONC - Comprehensive Emergency Obstetric and Newborn Care

BEMONC - Basic Emergency Obstetric and Newborn Care
PHCforR - Strengthening Primary Health Care for Results
SPHCR - Strengthening Primary Health Care for Results

CHWs - Community Health Workers

ESIA - Environmental and Social Impact Assessment.
ESMP - Environmental and Social Management Plan

ESMF - Environmental and Social Management Framework

HIV - Human Immunodeficiency Virus

AIDS - Acquired Immunodeficiency Syndrome

STIs - Sexually Transmitted Infections

UNESCO - United Nations Educational, Scientific and Cultural Organization

ZEMA - Zanzibar Environmental Management Authority

CCD - Care for Child Development

WB - World Bank

ESS - Environmental and Social Standard

ICT - Information and Communication Technology.

NEMC - National Environmental Management Council

PPE - Personal Protective Equipment.

IMRs - The Infant Mortality Rates

UNESCO - United Nations Educational, Scientific and Cultural Organization

WHO - World Health Organization

EMA - The Environmental Management Act

EXECUTIVE SUMMARY

Introduction

The Revolutionary Government of Zanzibar is in the process of securing funds from World Bank for proposed project of Investing in Peoples' well-being for Economic Development (IPW4ED) through the Ministry of Health (MOH). The project will focus on strengthening provision of quality health services at all levels of health services delivery. Furthermore, the project aims to (i) improve the provision of quality Reproductive, Maternal, Neonatal and Care services in all levels of health care delivery system (ii) ensure the availability of qualified human resource for health (iii) improve availability and application of electronic systems in health care provisions in the country (iv) promote user friendly reproductive health services for adolescents and youths at health facility and community level and (v) improve the community involvement and engagement in the provision of Health Care Services. Among other things, the project will involve rehabilitation and extension of Primary Health Care Unit (PHCU and PHCU+) in various places of Unguja and Pemba in Zanzibar. The ESMF for the project has been prepared to fulfill the requirements of the World Bank to the borrower as it shows how environmental and social risks and impacts will be addressed before implementation.

Objective of the ESMF

The main objective of the ESMF is to establish Environmental and Social screening procedures for identifying, assessing and mitigating potential environmental and social impacts of the subprojects in the proposed project. The specific objectives of the ESMF include to prepare procedures for environmental and social screening, planning, review, approval and implementation of sub-projects, setting up roles and responsibilities, reporting mechanism, procedures for managing and monitoring environmental and social concerns for sub-projects, identify training needs, capacity building, provide institutional arrangement for managing environmental and social impacts, assess potential Environmental and Social risks and impacts and applicable world Bank environmental and Social Standards for the project and to ensure all adverse environmental and social impacts are minimized

Project Description

The project of Investing in Peoples' well-being for Economic Development (IPW4ED) aims at strengthening the provision of quality health services at all levels of health services delivery in Zanzibar. It will involve Health facilities in 5 regions in Zanzibar, that is, 2 regions in Pemba (North Pemba and South Pemba) and 3 regions in Unguja (WesternTown, North Unguja and South Unguja). The Health facilities that will be covered in these regions include 1 Regional Referral

Hospital, 4 District hospitals, 2 Health Centers, 174 Dispensaries and Community based interventions at 388 Shehia in 11 districts of Zanzibar. The IPW4ED project will involve rehabilitation and extension of Primary Health Care Unit (PHCU and PHCU+) in various places of Unguja and Pemba.

The major project activities include (i) strengthening infrastructure to support the provision of quality Maternal and Neonatal care services in all levels of health care delivery system (ii) ensuring the provision of quality Reproductive, Maternal and Neonatal and Child care services are delivered in all levels of health care delivery system (iii) Human Resource for Health Placement & capacity building (iv) improving the quality and use of data for evidence-based planning and decision making (Digitalization of the Heath care systems) (v) strengthening referral system to improve the provision quality health care services (vi) improving community involvement and engagement in health-related interventions (vii) supporting the initiatives to improve the nutrition status of children under-fives years and (viii) promoting user friendly reproductive health services for adolescents and youths at health facility and community level.

World Bank Safeguard Standards

A World Bank (WB) supported project must comply with environmental and social safeguard standards before it is cleared for implementation. Since the proposed IPW4ED Project is likely to have potential adverse risks and impacts on the environment and hence Environmental and Social Standards (ESS) 1,2,3,4,5, 6 and 10 apply to the proposed IPW4ED Project. the ESMF prepared has provided the framework of how potential adverse risks and impacts on social and environment and World Bank ESS will be addressed.

Policy and Legal Framework

The review of the policy and legal framework relevant to the IPW4ED project was provided in this ESMF. This include Zanzibar environmental policy of 2013, Zanzibar disaster management policy of 2011, Zanzibar occupational safety and health policy of 2017, National water policy of 2004, National forest development policy of 1999, Energy sector policy of 2009, Zanzibar HIV/AIDS policy of 2006, Child protection and development policy of 2001, Zanzibar digital health strategy of 2020-2025, Zanzibar development vision of 2050, Zanzibar environmental management Act no.3 of 2015, Environmental Impact Assessment (procedures) Regulation of 2002, Forest resources management and conservation Act of 1996, Town and country planning Act of 1955, Zanzibar Land Tenure Act of 1992, Regional Administration Act, Zanzibar Water Act, Zanzibar Contractors Registration Act No.6 of 2008 and Zanzibar Contractors Registration By-laws of 2010.

Baseline Information

Since the scope of the IPW4ED project covers the whole Zanzibar area (i.e. all 5 regions in total of Unguja and Pemba Islands), the baseline information describes the whole area. The baseline information included aspects regarding Zanzibar climatic condition, topography, soils, population, tourism, Bio-Physical Environment, vegetation, Energy resources, Urban environment, Land resources, Water resources, water resources availability, water resources management, Biodiversity, Socio-Economic Environment, Socio services (water, roads, energy, waste management), Proximity to other services or land uses and existing workplace conditions and status of health centers buildings (i.e. Old PHCU Buildings and Renovated PHCU Buildings)

Potential Environmental and Social Impacts

The ESMF provides potential impacts that are likely to occur during implementation of the IPW4ED project that would require mitigation measures. The potential impacts include employment opportunities, increase of income and growth of local economy, increase of waste generation, noise pollution, air pollution, health and safety risks, disruption of physical environment, disturbance to health services, increase of HIV and STI and other diseases, increase of gender-based violence and sexual abuse, increased resources use such as water resource, increased PHCU+ upgraded from PHCU, reduced distanced for health services, improved workplace environment, increased efficient to health services, reduced mortality rates, growth of local economy, increase of Health care waste generation and air pollution from burning of wastes. However, during this appraisal stage the impacts are not site specific but rather overall impacts within the overall context of the project. In that case therefore, the current ESMF has provided potential mitigation measures and procedures to mitigate the impacts as the sub projects among other activities will involve construction activities and demolition of Primary Health Centers Units (PHCU and PHCU+) for rehabilitation and extension purposes and hence pose potential impacts.

Procedures for addressing environmental and social issues

This section provides guidelines for environmental and social screening of subprojects and the appropriate level of assessment and implementation measures. The screening process and other procedures specified in this ESMF are established as a framework to ensure environmental and social safeguard standards compliance throughout subprojects' life cycles under IPW4ED project. Environmental and social screening process helps to project whether future project activities are likely to have potential adverse impacts on bio-physical and social environment. It involves identifying sensitivity of the subproject site, the scale of civil works to be carried out and risk level of the subproject and incorporates mitigation measures into the project design, review and approval of subprojects in the IPW4ED project.

Project Implementation Arrangements, Responsibilities, Capacity Building, Training and Technical Assistance

This section explains the way the project will be implemented through a set up arranged within the Ministry of Health (MOH). The Permanent Secretary (PS) of the MOH is responsible for overall activities of the IPW4ED project and is assisted by the Director General as well as other Directors in the ministry. The PS will be assisted by the Project Coordination Unit (PCU) at the ministry but the PCU will work in collaboration with other implementing institutions/agencies such as ZEMA, DoE and WB to ensure compliance at various levels. The consultant and the contractor with their respective Environmental and Social Team will also be part of the implementation process. The PCU will consist of personnel like Procurement, Monitoring and Evaluation (M&E), Fiduciary, Engineer and Environmental and Social Team. The Environmental and Social Team at PCU will provide technical assistance in all matters related to environmental and social safeguard management to the top management and requirements for compliance with National and WB. The section also defines capacity building needs that are to be addressed and important trainings required.

Consultations and Disclosure of Environmental and Social Documents

This ESMF requires that, stakeholders' consultations to be undertaken from very initial stages of IPW4ED project planning. On this basis, the preparation of the ESMF involved stakeholders' consultations whereby about 374 people (individuals and institutional) have been consulted in 5 Regions of Zanzibar. Among the consulted a mixture of men and women was considered. The ESMF recommends further stakeholder consultation during the subproject's screening and scoping stage and during undertaking of the ESIA study. Consultations will be done to collect views and concerns to all key stakeholders at different levels depending on the subproject, location, likelihood and magnitude of impacts. These stakeholders shall include individuals, groups, communities, organizations or groups who are directly or indirectly affected by the project. They also should include those who may have an interest in the subprojects and/or have the ability to influence its outcome, positively or negatively. These stakeholders are either affected and/or interested parties who are either formal or informal representatives.

Views and concerns will also be required during disclosure of ESIA and ESMP and during design, construction and operation phases. Participation needs to be meaningful and inclusive of all stakeholders and communities, with emphasis on gender, ethnicity, income groups, minorities and vulnerable people as will be detailed in the stakeholders' engagement plan. This ESMF insists that, consultation process should be a two-way dialogue with provision of project related information and obtaining feedback from participants which shall be used to improve project design and mitigation plans.

Disclosure

Upon final completion of this ESMF and other safeguard documents in the later stages such as ESIA and ESMPs, the MOH of Zanzibar through PCU will disclose the approved documents/reports/information (ESIA, ESMP) to the public. Different ways shall be used to ensure that, the key findings of the ESMF, ESMPs, ESIA and other relevant studies together with mitigation plans are accessible by the public through website, WB info-shop, local notice board, public information point /center, ward, district, etc., for notification and response to issues raised by stakeholders. The PCU will also ensure that, non-technical summaries of the ESIA and ESMP are presented in an understandable form, manner and translated into Swahili language. The Bank will make these safeguards documents available to the public in accordance with Bank's Safeguard Standards on access to information.

Conclusions and Recommendations

The IPW4ED project is expected to comply with all the requirements of WB safeguard standards and the Tanzania environmental and social policies and laws from its implementation stage and throughout its lifecycle. The procedures for undertaking Environmental and Social screening, identifying potential impacts, World Bank safeguard standards triggered by the IPW4ED sub projects, institutional roles and responsibilities, capacity building and training requirements, technical assistance required, specifying how the environmental and social management plan should be prepared, how monitoring and reporting should be carried for the project, were all provided in this Environmental and Social Management Framework (ESMF). The ESMF also specifies how the sub-projects should be reviewed and approved for clearance by implementers. The Ministry of Health (MOH) therefore should ensure compliance to all requirements of the current ESMF as it has provided the framework to be followed.

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1.0 INTRODUCTION

1.1 Background of the Project

The Revolutionary Government of Zanzibar is in the process of securing funds from World Bank for proposed program/project Investing in Peoples' well-being for Economic Development (IPW4ED) through the Ministry of Health (MOH). The project will focus on strengthening provision of quality health services at all levels of health services delivery. Furthermore, the project aims to (i) improve the provision of quality Reproductive, Maternal, Neonatal and Care services in all levels of health care delivery system (ii) ensure the availability of qualified human resource for health (iii) improve availability and application of electronic systems in health care provisions in the country (iv) promote user friendly reproductive health services for adolescents and youths at health facility and community level and (v) improve the community involvement and engagement in the provision of Health Care Services.

The government recognizes the great potential for Investment in health services as a potential tool in fighting diseases and improving the quality of lives of the majority of people in Zanzibar. From this perspective, the Revolutionary Government of Zanzibar (RGoZ) has taken initiative to secure a credit from the World Bank for the proposed project "Investing in peoples' well-being for economic development (IPW4ED)". Among other things, the project will involve rehabilitation and extension of Primary Health Care Unit (PHCU) and Primary Health Care Unit plus (PHCU+) in various places of Unguja and Pemba in Zanzibar. Currently, there is high demand of health services which requires immediate actions to provide adequate solution. The proposed project is expected to improve health sector and service provision to many areas selected for implementation in Zanzibar with an overall objective of strengthening provision of quality health services at all levels of health services delivery.

The Revolutionary Government of Zanzibar has consistently focused its development strategies on combating diseases as well as poverty and ignorance and it has given high priority on the reduction of maternal, newborn and child deaths in the country. This is addressed through among others the fourth Health Sector Strategic Plan 2015-2020 (HSSP IV), Tanzania Vision 2025 and Zanzibar Health Sector Strategic Plan IV 2020-2025 and Zanzibar Development Vision 2050 to guide the health sector in the attainment of Sustainable Development Goals (SDGs). All these initiatives aim at providing essential health and social welfare services and meet as much as possible the expectations of the population, adhere to objective quality standards and apply evidence-informed interventions through efficient channels of service delivery. To achieve this the RGoZ aims at investing in main areas such as maternal health, newborn health, digitalization of

the health services, social accountability mechanisms and community awareness on health care services, emergency services delivery and clinical supervision and audit for quality health care services.

The proposed project will be implemented in 5 regions in Zanzibar and will focus on Health facilities which include 1 Regional Referral Hospital, 4 District hospitals, 2 Health Centers and 174 Dispensaries) and Community based interventions at 388 Shehia in 11 districts of Zanzibar. The IPW4EDproject will involve rehabilitation and extension of Primary Health Care Unit (PHCU) and Primary Health Care Unit plus (PHCU+) in various places of Unguja and Pemba and will have adverse environmental and social risks and impacts that must be addressed before implementation. The Ministry of Health (MOH) secured a consultant for preparation of the ESMF as one of the requirements by the World Bank to be fulfilled by the borrower (the Revolutionary Government of Zanzibar) condition for appraisal processes of the loan for the proposed project. From this context the MOH of Zanzibar has prepared the ESMF for the IPW4ED project according to the WB requirements.

The ESMF prepared provide arrangements to the Ministry of Health for addressing anticipated potential environmental and social issues associated with the implementation of the intended IPW4ED Project in Zanzibar (i.e. covering different places of Pemba and Unguja). The Rehabilitation and extension of Primary Health Care Unit (PHCU and PHCU+) is likely to have adverse environmental and social impacts that the ESMF must address how these will be managed before the IPW4ED Project is approved. It is for this reason the MOH in collaboration with WB Country office calls for preparation of an ESMF which prescribes subproject arrangements for the preparation, review, approval and implementation of environmental and social safeguard instruments.

1.2 The need for IPW4EDProject

The Revolutionary Government of Zanzibar through the MOH is committed to improve health services to its people by strengthening the provision of quality health services at all levels of health services delivery. This is evidenced through implementation of various strategies such as Health Sector Strategic Plan 2015-2020 (HSSP IV), Zanzibar Health Sector Strategic Plan IV 2020-2025, Zanzibar Digital Health Strategy for 2020-2025 and Strengthening Primary Health Care for Results, just to mention the few. The RGoZ has achieved positive progress in improving quality health services through initiatives taken but still there is a high maternal mortality at 166 deaths per 100,000 live births for Zanzibar (according to the MoH performance report of 2019/2020) and

neonatal mortality at 28 deaths per 1,000 live births for Zanzibar (according to Tanzania Demographic Health Survey of 2015/16). These deaths occur in different levels of health care delivery points, most being at the referral hospitals.

As an effort of reducing maternal deaths, the RGoZ through Ministry of Health collaborated with the World Bank to develop the Strengthening Primary Health Care for Results (PHCforR) program to support improvement of quality of primary health care (PHC) services Nationwide. Among others, the main goal of the program has been to improve the quality of Maternal, Neonatal and Child Health (MNCH) care services in all levels of health care delivery in the country. The main emphasis of Strengthening Primary Health Care for Results (SPHCR) program has been on primary level of care by making renovation and equipping primary health care facilities to enable them to provide Comprehensive Emergency Obstetric and Newborn Care (CEmONC) services, quality improvement through performance for results in high rate of Maternal and Perinatal Death.

Despite of the initiatives taken by RGoZ still there are various remaining challenges such as Maternal mortality ratio which is still stagnantly high, high perinatal death, triple burden of malnutrition which is comprised of under nutrition, micronutrient deficiency and over nutrition, weak electronic system in provision of health care services, inadequate emergency medical services in the country and inadequate clinical supervision and clinical audit. In this view the RGoZ seeks to continue to improve further health facilities capacity to be able to deliver more safe, equitable, accessible, efficient and effective health services at all levels in various places in Zanzibar. It is from these efforts the RGoZ seeks to implement IPW4ED Project.

1.3 Objective of the ESMF

The main objective of the ESMF is to establish Environmental and Social screening procedures for identifying, assessing and mitigating potential environmental and social impacts of the subprojects in the main IPW4ED Project in Zanzibar. The screening process will determine whether environmental and social impact assessment for sub-projects is required or not. The ESMF therefore will guide the level of assessments of environmental and social impacts of the subprojects whether simple environmental assessment should be applied by using environmental checklist or detailed Environmental and Social Impact Assessment according to Zanzibar's Environmental Impact Assessment Regulations of 2002. The specific objectives of ESMF are;

- Prepare procedures for environmental and social screening, planning, review, approval and implementation of sub-projects
- Setting up roles and responsibilities, reporting mechanism, procedures for managing and monitoring environmental and social concerns for sub-projects

- Identify training needs, capacity building and technical assistance needs for implementation of the ESMF
- Provide institutional arrangement for managing environmental and social impacts
- Assessing potential Environmental and Social risks and impacts in overall project activities and applicable world Bank environmental and Social Standards for the project
- To ensure all adverse environmental and social impacts from the project activities are minimized

1.4 The need for ESMF for IPW4ED

The basis of the ESMF is to have procedures and modalities for managing and monitoring environmental and social risks and impacts of IPW4ED Project and associated sub-projects within in Zanzibar (Pemba and Unguja). The project has indicated that there will be rehabilitation and extension of Primary Health Care Unit (PHCU and PHCU+) in various places of Unguja and Pemba where some project activities will involve construction activities for extension purposes. These activities are likely require application of WB Environmental and Social Standards (ESS). The ESMF therefore is balanced to ensure national compliance as well as World Bank conditions which determines the level of assessment required and provides procedures for environmental and social impacts assessments. This ESMF will be used as a tool for guidance on how environmental and social issues should be handled, managed and monitored within the overall IPW4ED Project.

1.5 Project Area

The proposed project will take place at various places of Unguja and Pemba whereby 5 regions of Zanzibar will be covered by the IPW4ED Project, these are, 2 regions in Pemba (North Pemba and South Pemba) and 3 regions in Unguja (Western Town, North Unguja and South Unguja). The project is expected to undertake rehabilitation and extension of Health Centers (PHCU and PHCU+) depending on specific requirements of the respective health facility.

1.6 Who will use the ESMF?

The ESMF will be used by a number of key stakeholder particularly the implementing Institution. The project coordination unit (PCU) in the implementing institution for this case the MOH of Zanzibar will use this ESMF as guiding documents on all environmental and social safeguards issues to support the implementation of the IPW4ED project. Other key project stakeholder will be the development partner particularly WB as a guiding document to ensure compliance of environmental and social requirements in project activities. Below is the list of all key stakeholder who will use this ESMF;

- MOH of Zanzibar which is the Project Implementing Institution, this is, the government institutions responsible for implementing project activities and supervision.
- Project Coordination Unit (PCU) of the MOH responsible for planning, review, approval, and supervision of the sub- projects
- Regional and District Authorities responsible to this IPW4ED project
- Development Partners such as WB particularly safeguards Unit
- Environmental and social consultants who provide safeguard services to the project.
- Contractors and service providers involved in subproject design, construction and installation works
- Local Authorities for example Shehia where Health Centers will be implemented
- Any other stakeholder who will in one way or another be engaged on the preparation, or implementation of the project, etc.

2.0 PROJECT DESCRIPTION

The proposed project of Investing in Peoples' well-being for Economic Development (IPW4ED) aims at strengthening the provision of quality health services at all levels of health services delivery in Zanzibar. The strengthening exercise will specifically have the following objectives;

- 1. To improve the provision of quality Reproductive, Maternal, Neonatal and Care services in all levels of health care delivery system
- 2. To ensure the availability of qualified human resource for health
- 3. To improve availability and application of electronic systems in health care provisions in the country
- 4. To promote user friendly reproductive health services for adolescents and youths at health facility and community level
- 5. To improve the community involvement and engagement in the provision of Health Care Services

2.1 Project components

The project will have two main components

Component 1: Strengthen Coordination and Provision of RMNCAH-N Services

This component will involve the following;

- i. Coordination of planning and implementation of quality MCH services.
- ii. Improve health infrastructure to deliver emergency obstetric and newborn care
- iii. Human Resources Development
- iv. Procurement of selected essential MCH commodities and medical equipment.
- v. Support effective emergency and referral systems and services
- vi. Monitoring and supervision of RMNCAH-N implementation (HIS)

Component 2: Enhance Institutional Capacity to Manage Project Supported Activities

This component will involve institutional capacity building, technical assistance and support in the management of project activities. It aims to ensure project implementation well done and focuses on strengthening effective operational environment to ensure sustainability of the project.

2.2 Project activities

The proposed project will involve the following major activities and minor activities;

2.2.1 Strengthening infrastructure to support the provision of quality Maternal and Neonatal care services in all levels of health care delivery system. This activity will involve to:

- a) Rehabilitate and equip 150 Dispensaries to provide BEmONC services.
- b) Upgrade and equip 100 Dispensaries in strategically located areas, to enable them provideCEmONC services
- c) Rehabilitate and equip 50 District Hospitals to provide Maternal and Neonatal services
- d) Establish and equip Emergency and Critical Care department in strategically located 50 District hospitals and all 28 Regional Referral Hospitals
- e) Conduct supportive supervision/Follow-up during rehabilitation/construction of rehabilitated health facilities
- f) Renovate and upgrade of 5 selected health facilities to establish 2 maternal and child health centers, for provision of BEmONC and CEmONC services for Zanzibar
- g) Renovate and equip twin staff houses for 40 rural Health Facilities to provide full time BEmONC services
- h) Provide support to 30 PHCU/PHCU+ on construction of WASH facilities including bore holes, Elevated tanks, Water pumps
- Procure equipment for and maintain theatres, laboratory for 1 tertiary, 1 Regional and 4
 District hospitals
- j) Procure and maintain equipment for cancer screening services to 7 hospitals (1 tertiary, 1 Regional, 4 District hospitals 1 PHCC).
- k) Improve Zanzibar National Blood Transfusion Services including blood collection to support CEmONC services
- Procure essential BeMONC and CEmONC equipment (including mobile USS) and supplies for 6 CEmONC and 34 BEMONC facilities

2.2.2 Ensure the provision of quality Reproductive, Maternal and Neonatal and Child care services are delivered in all levels of health care delivery system

- a) Develop, review and disseminate relevant tools for ensuring quality of health care services
- b) To conduct clinical supervision and clinical audit in all levels of health care deliveries

2.2.3 Human Resource for Health Placement & capacity building

- a) Placement of 1000 skilled staff in Primary Health Care Facilities
- b) Facilitate 300 health care workers to peruse Masters of Medicine in Special specialties and Master of Sciences (e.g. Anaesthesia, Emergence medicine, critical care)

- c) To conduct 1-year training for 200 of Anaesthetic nurses
- d) To support the Health Care Workers to attend the Basic Critical Care Training Courses
- e) Expand enrollment of rare health care cadres i.e. histopathology technicians, biomedical technician
- f) To conduct clinical attachment/ mentorship to 2000 in-service providers to acquire RMNCAH and other relevant skills at all levels
- g) Develop new and review health programmes curricula fitting modern needs
- h) To conduct a management course to Hospital Managers aiming to strengthen Management at all levels from the recognized training Institutions
- i) To conduct a quality improvement and customer care training to Quality Improvement Unit and focal person from health care facilities at all levels of health care provision
- j) Conduct follow-up & supportive supervision to Health care providers attended mentorship and training to ensure improved quality
- k) Hire Staff including PM, Accountant, Procurement and Supply specialist and M&E specialist for project coordination and monitoring of results for Zanzibar
- Support 30 staff to pursue Master of Medicine in special specialist (Pathologist 2, Intensive care physician 2& nurses 2, Neonatologist 2 & Neonatal nurse 2, Emergency Physicians 2 and Nurse 2, Pediatrician 4 & Pediatric Nurse 4, Obs & Gyn 4, Biomedical Eng 2, Nutritionist 2, Anesthesiologists)
- m) Provide incentives and build capacity to 2300 CHVs to provide nutrition, CCD, RMNCAH and WASH services
- n) Establish CCD corners in health facilities
- o) Review and update the health-training curriculum to include prevention and management of DRNCD even for university curricula

2.2.4 Improve the quality and use of data for evidence-based planning and decision making (Digitalization of the Heath care systems)

- a) Digitalization of primary & Secondary health care facilities by strengthening the use of the existing GOTHOMIS and Afya Care Systems
- b) Installation of telemedicine facilities in Regional Referral Hospitals and their respective Zonal and Specialized facilities (Hub)
- c) Capacitate Central, Regional, Council and Facility teams to conduct data analysis & use for evidence-based planning & decision making
- d) Introduce barcode system and strengthen M-supply inventory management for warehouse operations of medicines and other health commodities for Zanzibar
- e) Support development and management of RMNCAH and nutrition dashboards, star rating, CHIS tracker and other ICT solutions on DHIS2

- f) Introduce digital client registry at all levels to enhance utilization information for planning and decision making
- g) Conduct Mid -Term and End-Term project review, operational research on selected approaches and interventions on this project to document lessons and best practices

2.2.5 Strengthen referral system to improve the provision quality health care services

- a) Improve the Referral System to all levels of health care provision in the country by procuring the advanced Life support ambulances for the Regional Referral Hospitals, District Hospitals and Health Centers
- b) Procurement of Critical care medical Equipment for provision of Critical and Emergency Medical services
- c) Develop and implement referral guidelines and protocol for all levels of care
- d) Procure five (5) fully equipped satellite community ambulance managed by CHMTs in Districts without CEmONC facilities

2.2.6 Improve community involvement and engagement in health-related interventions

- a) To strengthen Community Health Workers cadre by training and equipping CHWs to enhance RMNCAH community health services.
- b) To improve RMNCAH data quality by digitalizing Community Information Management System (MTUHA 3)
- c) Decentralization of community social accountability mechanisms (Community Score Card) using national guidelines
- d) To strengthen SBCC RMNCAH materials production by equipping the MoH Audio and Visual studio.
- e) To enhance RMNCAH social mobilization interventions by supporting the procurement roadshow broadcasting trunk
- f) To strengthen School Health Services through roll out of School Health Cards.
- g) To strengthen First Aid services to primary and secondary schools countywide.
- h) Strengthen community based qualitative and quantitative researches

2.2.7 To support the initiatives to improve the nutrition status of children under-fives years

- a) Support procurement of Anthropometric equipment (178 length board, 178 weighing scales)
- b) Procurement of 35,500 copies of New growth standars booklets for 178 Health Facilities
- c) Procurement of 178 Haemocure machines and 20,000 Microcuvate for 178 HF
- d) Procurement of IFA tablets
- e) Procurement of 35 Mil. Mebendazole tablets for Under five children

- f) Procurement of therapeutic food (2000 F75, 1000 F100, 20000 plumpynuts & 300 Resomal, 500 CMV)
- g) Establishment of Nutrition Centre and furnishing of 178 Nutrition Centres (178 chair, 178 table, 178 cupboards, 178 TV screens)
- h) Support quarterly Supportive supervision on nutrition related interventions
- i) Capacity Building to 5 HCW from 178 Health Facilities on GMP, IMAM, MIYCAN, DQA, BFHI, ECD)
- j) To review, develop and disseminate guidelines, protocols, job aids and training orientation packages for CHW and HSP (GMP guideline, IMAM, MYICAN, DQA, QI, NC, ECD)
- k) To develop, design and disseminate documentaries and messages through Mass, Folk and social medias on infant feeding, micronutrients and maternal nutrition
- l) To conduct the advocacy meeting to RHMT & CHMTs on establishment of malnutrition unit for under five children
- m) Support designing and scaling up of School health, WASH. Child Protection and nutrition program
- n) Procure one Van for each Council for provision community outreach services including on DRNCDs, supportive supervision and monitoring of the project interventions by CHMTs.
- o) To procure nutrition supplements to improve the nutrition status of the children under five years of age

2.2.8 Promote user friendly reproductive health services for adolescents and youths at health facility and community level

- a) Capacity building of health care providers on youth friendly service
- b) Promote schools-based health interventions
- c) Establish peer groups at community
- d) Promote the use of birth spacing control measures in the health care facilities
- e) Conduct behavior based coaching sessions to YF service providers and link peer educators to CHVs and other Youth Development /social groups
- f) Engage religious and other community influential leaders in implementing adolescent and youth's responsive health and nutrition programs

2.3 Scope of the project

The proposed project will involve Health facilities in 5 regions in Zanzibar, that is, 2 regions in Pemba (North Pemba and South Pemba) and 3 regions in Unguja (Western Town, North Unguja and South Unguja). The Health facilities that will be covered in these regions include 1 Regional Referral Hospital, 4 District hospitals, 2 Health Centers, 174 Dispensaries and Community based

interventions at 388 Shehia in 11 districts of Zanzibar. The IPW4ED project will involve rehabilitation and extension of Primary Health Care Unit (PHCU) and Primary Health Care Unit plus (PHCU+) in various places of Unguja and Pemba. The subproject activities in the IPW4ED project are expected to have adverse environmental and social risks and impacts in various places of Zanzibar (particularly where subprojects are located) that must be addressed before implementation.

3.0 POLICY AND LEGAL FRAMEWORK

3.1 WORLD BANK SAFEGUARD POLICIES

The World Bank (WB) has ten approved Environmental and Social Standards (ESS) that address environmental and social issues to the Bank's supported development projects. All projects under World Bank financing must comply with Environmental and Social Standards (ESS) before is cleared for implementation. Table 1 shows all WB Safeguard standards and indicates those which will be applicable to the proposed project "Investing in peoples' well-being for economic development (IPW4ED)" in Zanzibar. The section, further defines how safeguard standards apply to project activities during implementation of sub-projects. It further defines Zanzibar policy and regulatory framework particularly those related/linked or which are in compliance with Environmental and Social issues and define key requirements in relation to the proposed IPW4ED Project.

Table 1: Applicable Environmental and Social Standards to the IPW4ED Project

Environmental and Social Standard (ESS)	
ESS1: Assessment and Management of Environmental and Social Risks & Impacts	
ESS2: Labor and Working Conditions	
ESS3: Resource Efficiency and Pollution Prevention and Management	
ESS4: Community Health and Safety	
ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	
ESS6: Biodiversity Conservation and Sustainable Management of Living Natural	
Resources	
ESS7: Indigenous Peoples/Sub-Saharan African Historically Underserved	No
Traditional Local Communities	
ESS8: Cultural Heritage	
ESS9: Financial Intermediaries (FIs)	
ESS10: Stakeholder Engagement and Information Disclosure	

3.3.1 Assessment and Management of Environmental and Social Risks and Impacts (ESS1)

The proposed IPW4ED Project among other interventions will involve rehabilitation and extension of Health Centers (PHCU and PHCU+) at various places of Unguja and Pemba in Zanzibar. The activities that will be carried out for subprojects implementation include construction activities for extension or rehabilitation purposes and rehabilitation activities such as repair, fittings, painting,

etc. This Environmental and Social Standard is applicable to this project due to its potential adverse environmental risks and impacts in the areas of influence. These include impacts on natural environment such as air, water, land, human health and safety. The decisions regarding the project should be based on critical analysis of project activities and associated environmental and social risks and impacts during implementation. Some of the sub-project may require preparation of Environmental and Social Impact Assessment (ESIA) and/or Environmental and Social Management Plans (ESMPs) for approval before implementation. Therefore, the proposed project will be screened to determine potential adverse impacts and mitigation measures for their planned activities. Compliance to this standard will ensure sustainable development of health facilities and services. Successful implementation of the project will ensure access to improved quality health services which will enhance peoples' wellbeing for economic development in Zanzibar.

3.3.2 Labor and Working Conditions (ESS2)

The standard recognizes the importance of employment creation and income generation in the pursuit of poverty reduction and inclusive economic growth. The Ministry of Health (MOH) as a developer shall promote sound worker-management relationships and enhance the development benefits of the project by treating workers employed/engaged in the project fairly and by providing safe and healthy working conditions. The ESS2 aims to promote safety and health at work; fair treatment, non-discrimination and equal opportunity of project workers; protect project workers including vulnerable workers; to prevent all forms of forced labor and child labor. It supports freedom of association and collective bargain of project workers in manner consistent with national law and provide workers with accessible means to raise workplace concerns.

The ESS2 will be applicable to the project given that the project will employ/engage both skilled and non-skilled workers, including through contractors/ subcontractors, and primary suppliers, to undertake various activities. However, Labor Management Plan (LMP) for the project has been prepared for project implementation, the LMP will be reviewed and approved for implementation before project appraisal. The provisions of ESS2 will also be included in ESIA during ESIA process.

In order to comply with the provisions of ESS2, the project shall promote gender equality, non-discrimination and fair treatment in recruitment and employment, respect for national labor laws including those in relation to prohibiting child and forced labor, occupational health and safety, and combatting gender-based violence, in particular sexual harassment. The MOH should be able to address occupational health and safety and other labor and working conditions issues. Also, the contractors/subcontractors and primary suppliers shall ensure equal employment opportunity and should not discriminate anyone on the basis of color, nationality, tribe, social origin, political

opinion, religion, gender, pregnancy, marital status/family responsibility, disability, HIV/AIDS, age or situation of life, sexual orientation, or union membership.

Moreover, in the recruitment and employment of project workers, the MOH/contractors/sub-contractors shall seek to ensure diversity and balance in the work place, including ensuring that employment or treatment of workers is not made on the basis of personal characteristics unrelated to inherent job requirements. The developer will ensure that workplace sexual harassment of any nature by workers directly hired or project workers engaged through contracted companies shall be prohibited, and those determined to be guilty will be subject to disciplinary action, including summary dismissal. The MOH will have to take worker safety seriously by laying out internal controls and procedures that will protect workers employed or engaged in relation to the project from occupational hazards during all relevant project phases. All works will be done in compliance with relevant environmental and health and safety standards to minimize impact on workers as well as the local area and citizens.

The ESMF requires the ESIA process to incorporate procedures for workers' safety, address plans for accident prevention, health and safety of workers and local communities. In addition to that, important measures for mitigating risk of transmission of diseases such as HIV/AIDS, COVID-19, among project workers and the local communities should be incorporated and properly addressed. The MOH shall seek support and capacity building from Ministry of Labor, Empowerment, Elders, Youth, Women and Children, for workers and contractors through training in workplace health and safety procedures and enforcement and in preparing and enforcing health and safety provisions in construction works. The developer/MOH and the contractor therefore should maintain accident registers, provide workers with appropriate protective gear and put warning signs visible to the public and workers. The ESMF further recommends that, these issues should be well addressed in site specific ESIA/ESMPs which will be prepared for specific subprojects.

3.3.3 Resource Efficiency and Pollution Prevention and Management (ESS3)

The ESS3 sets out the requirements to address resource efficiency and pollution prevention and management throughout the project lifecycle. The standard aims to promote sustainable use of resources such as water, energy and raw materials. It also focuses on minimizing adverse impacts on human health and the environment by minimizing pollution from project activities. The proposed project will use a moderate amount of construction materials and water for rehabilitation and extension activities. Most of materials will come from local suppliers in Zanzibar or Tanzania mainland and few that are not available will be imported from abroad. Since the proposed project will have negative impacts such as to generate pollution to air, water, land,

ecosystem and the environment in general, the developer will utilize pollution prevention measures to mitigate any potential source of pollution from the proposed project activities.

3.3.4 Community Health and Safety (ESS4)

The ESS4 requires borrowers to avoid or minimize safety and health risks and impacts of the project, with particular attention to people who, because of their particular circumstances, may be vulnerable. It aims to avoid or minimize community exposure to project related risks, diseases, and hazardous materials and ensure safeguarding of all project affected communities with those risks. The implementation of IPW4ED Project components will have health and safety risks and impacts on project-affected communities. The expected labor influx from different parts of Zanzibar and mainland Tanzania to work at the proposed project in different parts of Unguja and Pemba could create considerable social and economic problems to project affected communities. These risks and impacts could include increased rates of crime, and social conflict and violence, increased pressure on local accommodation and rents, increased transmission of HIV/STDS, as well as increase in gender-based violence, in particular sexual exploitation. While project contractors/subcontractors will be responsible for establishing and maintaining work camps that might be established to accommodate project workers, especially those coming from mainland Tanzania or elsewhere, the MOH as implementer will be responsible for camp supervision and ensuring that these camps comply with national laws and provisions of ESS4.

The project will ensure compliance with national law requirements as well as World Bank guidelines regarding the COVID-19 situation, including in relation to workers who are part of the labor influx. MOH shall work closely with Shehia to communicate to local communities related health and safety risks and preventive measures for accidents associated with the proposed project activities and other human health issues including measures to avoid GBV issues and prevention of HIV/AIDS during construction. The MOH may bring in support from within Government agencies when a person of equal expertise is not available in the village to provide training on HIV/AIDS. All works will be done in compliance with relevant environmental and health and safety standards to minimize impact on workers, the local area and general public.

During the project operational phase, wastes such as solid waste, liquid waste and clinical waste will be generated. Clinical waste can be considered as more hazardous if not managed appropriately and disposed to the appropriate dumpsite. However, management of these wastes shall be stipulated in ESIA/ESMP. In order to ensure safety during project implementation, all project sites shall be enclosed in a fence for safety and security reasons.

3.3.5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement (ESS5)

The standard does not encourage involuntary resettlement. Where involuntary resettlement is unavoidable, it will be minimized and appropriate measures to mitigate adverse impacts on displaced persons (and on host communities receiving displaced persons) will be carefully planned and implemented. The ESS5 requires mitigation of all unavoidable adverse social and economic impacts from land acquisition or restriction on land use and by providing timely compensation for loss of assets at replacement. Despite that rehabilitation and extension work of the proposed project will be done at the existing land plots but some extension activities may require additional land. Field assessment noted some proposed health centers (PHC) which almost 80 percent of its area is within the road reserve, other PHCs have limited land area and space for health services which they cannot continue with such situation. These PHC will either be relocated or extended to the adjacent areas. Under these circumstances where a piece of land may be needed for extension purposes, MOH who is the developer should be required to comply with the requirements of ESS5 and ensure timely compensation to the project affected people. Mitigation measures would be needed if there will be land acquisition or if extension activities could affect livelihoods and some community infrastructure.

Zanzibar has good institutional framework for managing land acquisition and resettlement issues/impacts. There are Land laws, and clear roles and responsibilities within the Ministry of Land, procedures and dispute resolution on land matters, and emphasis on community consultation to ensure there is consensus on the acquisition processes. Therefore, MOH shall ensure (a) greater transparency in land acquisition process, (b) special care in managing voluntary land contributions, including well-defined and transparent criteria and clear documentation of transactions when land is provided voluntarily and attention to livelihood restoration, (c) strong and readily accessible grievance redress mechanism, (d) provisions for community consultation and participation and (e) compensation should be at replacement and market value. These requirements should be addressed through application of the RPF and a GRM prepared for this project.

3.3.6 Biodiversity Conservation and Sustainable Management of Living Natural Resources (ESS6)

ESS6 recognizes the importance of maintaining core ecological functions of habitats, including forests, and the biodiversity they support. It further realizes the need for protecting and conserving biodiversity and sustainably managing living natural resources as being key to sustainable development. From the field assessment, the proposed activities under the current project may have little or no impact on local biodiversity, ecosystem services and natural resources. The project will focus on rehabilitation and extension of existing heath centers. Therefore, most of project sites are the same sites where health centers exist and are found within

human settlements centers where there is no or very little vegetation cover. However, this ESMF recommends further assessment during ESIA studies to take into account biodiversity and natural resources prior to implementation and appropriate mitigation measures to be identified.

3.3.7 Stakeholder Engagement and Information Disclosure (ESS10)

ESS10 focuses on inclusive process throughout the project life-cycle, which is transparent, builds and maintain constructive relationship between the project affected parties and the implementer (for this case the MOH). 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 proposed IPW4ED Project will engage stakeholders and the engagement will cover all phases of the project including development of all Environmental and Social instruments. The preparation of this ESMF has significantly carried out stakeholder engagement as an early stage of project development process and integral part of early assessment for projects environmental and social risks and impacts for project decision making, management and monitoring. The MOH as an implementer should further provide stakeholders 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.

The ESS10 require the ESMF report to be disclosed as a separate and standalone document by the Revolutionary Government of Zanzibar and the World Bank as a condition for Bank Appraisal of the IPW4ED Project.

3.2 WBG EHS GUIDELINES

The World Bank Group requires borrowers/clients for this case the for this case the RGoZ through MOH to apply relevant levels or measures of the Environment, Health and Safety (EHS) Guidelines in implementation of IPW4ED Project. In cases when host country regulations differ from the levels and measures presented in the WB - EHS Guidelines, projects will be required to achieve whichever is more stringent. The World Bank Group Environmental, Health, and Safety Guidelines ("EHS Guidelines") are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP) and contain the performance levels and measures that are normally acceptable to the World Bank Group, and that are generally considered to be achievable in new facilities at reasonable costs by existing technology.

The General EHS Guidelines contain information on cross-cutting environmental, health, and safety issues potentially applicable to all industry sectors. The EHS guidelines are living documents and are occasionally updated. These documents (EHS guidelines) can be accessed in the following

link (https://www.worldbank.org/en/search?q=health+and+safety+guidelines). This ESMF recommends the proposed IPW4ED Project to apply these guidelines to ensure all issues regarding environmental, occupational health and safety (OHS) and community health and safety (CHS) requirements are incorporated into the project design and future ESMPs. The links to these guidelines are indicated in Table 2 below.

Table 2: Environment, OHS, CHS and Construction and Decommissioning Guidelines

Guideline	Link
Environment Guidelines	https://www.ifc.org/wps/wcm/connect/topics ext content/ifc externa l corporate site/sustainability-at-ifc/policies-standards/ehs- quidelines
Occupation health and safety guidelines	https://www.ifc.org/wps/wcm/connect/1d19c1ab-3ef8-42d4-bd6b-cb79648af3fe/2%2BOccupational%2BHealth%2Band%2BSafety.pdf? MOD=AJPERES&CVID=nPtgxyx
Community health and safety guidelines	https://www.ifc.org/wps/wcm/connect/eeb82b4a-e9a8-4ad1-9472-f1c766eb67c8/3%2BCommunity%2BHealth%2Band%2BSafety.pdf?MOD=AJPERES&CVID=nPtgxTd
Construction and decommissioning	https://www.ifc.org/wps/wcm/connect/7d708218-2a9e-4fcc-879d-9d5051746e7d/4%2BConstruction%2Band%2BDecommissioning.pdf?MOD=AJPERES&CVID=nPtgy6x

3.3NATIONAL POLICY FRAMEWORK

3.2.1 Zanzibar Environmental Policy, 2013

The Environmental Policy aims at protection, conservation, restoration and management of Zanzibar's environmental resources to avoid impairment of its capacity to sustain development and maintain the rich environmental endowment for the present and future generations. It focuses on the following objectives i) Ensuring the maintenance of basic ecological processes upon which all productivity and regeneration, on land and in the sea depend, ii) Promoting the sustainable and rational use of renewable and non-renewable natural resources, iii) Preserving the terrestrial and marine biological diversity, cultural richness and natural beauty of Zanzibar's land, iv) Ensuring that the quality of life of the people of Zanzibar, present and future, is not harmed by destruction,

degradation or pollution of their environment and natural resources utilization, v) Strengthening both institutional mechanisms for protecting the environment and the capabilities of the institution involved in the environmental management, vi) Incorporating and biding to the international obligations in Multilateral Environmental Agreements to which the United Republic of Tanzania (URT) is a Party.

This ESMF aims at ensuring that the proposed IPW4ED Project which among others will involve rehabilitation and extension of Health Care Units (PHCU and PHCU+) in Zanzibar is implemented in an economically sustainable manner whilst safeguarding environmental and social issues in line with the Zanzibar environmental policy objectives.

3.2.2 The Zanzibar Disaster Management Policy, 2011

The focus of the Zanzibar Disaster Management Policy is to have safe and sound livelihood with minimum disaster disruption to social and economic development issues. Zanzibar's disaster risks are dominated by droughts, agricultural pests, fire, floods, marine and terrestrial accidents, diseases and epidemic outbreaks that disrupt people's livelihood, destroy some infrastructure, divert planned use of resources, interrupt socio-economic activities and retard development. The objectives of the policy are to; (a) formulate and implement sound and strong disaster management related legislations that will cover the disaster risk reduction issues at all levels (b) upgrade public knowledge and awareness of disaster and ensure community resilience and true participation in disaster preparedness, mitigation and recovery (c) enhance higher level of preparedness, mitigation, response and recovery capacity to all stakeholders for all types of disasters (d) strengthen the disaster risk reduction programmes by supportive efforts in the areas of research, experience sharing, information gathering, generation and propagation, risk reduction, recovery and monitoring and evaluation (e) set up and sustain an effective institutional arrangement for the harmonization and incorporation of disaster issues and (f) mainstream disaster risk reduction issues into development plans and other sectoral policies and programmes at all levels.

This policy has put into consideration disasters that are common in Zanzibar such as floods, fire outbreaks, diseases and epidemic outbreaks can destroy some infrastructures and interrupt and retard the development. However, such disasters may also hit the proposed health centers in IPW4ED Projector may be subject the health centers under health service pressure in response to disaster which may occur in Zanzibar. This ESMF recommends consideration of accommodating emergency responses in health centers in case of occurrence of disaster.

3.2.3 Zanzibar Occupational Safety and Health Policy, 2017

The occupational safety and health policy for Zanzibar is set to strengthen legal and institutional arrangements for effective coordination and management of occupational safety and health (OSH), establish appropriate funding mechanisms for occupational safety and health activities, increase access and quality to occupational health services to cover the country's workforce, build capacity of workers on occupational safety and health issues in both public and private sectors, promote a culture of prevention among employers, workers and the community at large, strengthen OSH data management and information system for evidence based planning and strengthen coordination, monitoring and evaluation mechanism.

The proposed project will be designed to complement country's efforts in management of occupational safety and health risks in all workplaces as stipulated in the policy. The developer therefore has to provide important directives to guide the occupational safety and health for stakeholders to adopt a management system that is effective in reducing the incidences of work-related injury and disease. For example, workers should form and participate in occupational health and safety committees at workplace, and they should be provided with necessary training on how to report any hazardous situation, accidents, diseases and other danger occurrences to relevant authorities. This ESMF recommends MOH to ensure compliance with this policy in implementation of IPW4ED Project.

3.2.4 National Water Policy, 2004

The national water policy aims at achieving resources efficiency and sustainability as well as facilitating sustainable use of water in urban and rural areas of Zanzibar. Its specific objectives are to provide guidance to enable Zanzibar to achieve its aim of providing access to clean and safe water for all people and other water users to fulfil the needs of expanding social and economic activities while considering nature conservation. The policy recognizes that the ground water is the primary source of water in Unguja and Pemba. A fresh ground water lens floats above the deeper saline water and sustainable development of ground water resources must maintain the balance of fresh water flows to prevent this saline water rising up and coming into the fresh water lens or flowing inland from the sea. On the other hand, there are no large and adequate reserves, which can be mined at unlimited discharges. Supplies have to depend on recharge from annual rains. The survival of this precious ground reserve will therefore depend upon the balancing of rate of extraction for human use and the rainfall recharge. The implementation of the proposed project will have to adhere to this policy in a manner that ensures efficiency in water utilization and sustainability of water in urban and rural areas of Zanzibar.

3.2.5 National Forest Development Policy, 1999

The policy recognizes the dependence of the people of Zanzibar on forest resources for basic needs such as fuel, timber, poles and other building materials. The purpose of this policy is to establish priorities for conservation and a framework for actions towards achieving sustainable management of forest resources. The policy is directed at integrated conservation, development and utilization of forest resources, both wood and non-wood. The overall goal of the policy is the protection, conservation and development of forest resources for the social, economic and environmental benefit of present and future generations of the people of Zanzibar. A social goal of the policy is to strengthen the role of forests in alleviating poverty and increase equity in resource management and utilization whereas the economic goal is to strengthen the role of forest resources in promoting economic development, in meeting demand for forest products, in creating income and in increasing national revenues and efficiency.

The environmental goal of the policy is to protect and conserve forest resources including wildlife and flora and enhance the role of resources in maintaining soil and water conservation and other environmental benefits. Since rehabilitation and extension of Health Centers (PHCU and PHCU+) will need forest products such as timber for roofing, doors, chairs and other utilities during implementation, the project therefore will have to adhere to this policy by ensuring that all activities and use of forest products are conducted in a manner that ensures sustainable management of resources is achieved. This ESMF insists that implementation of the proposed IPW4ED Project should be in line with this policy.

3.2.6The Energy Sector Policy, 2009

The Revolutionary Government of Zanzibar recognized that modern and secure access to clean forms of energy is a prerequisite for sustainable development of the country. Moreover, demand on energy is increasing due to demographic growth and economic development. The main objective of the energy policy is to meet energy needs of the Zanzibar population for social and economic development in an environmentally sustainable manner. It is recognized that the use of energy has consequences on the surrounding society, irrespective of whether is for economic, social, political or environmental perspective. The specific objectives of the policy include i) Increase the energy efficiency within the energy sector of Zanzibar, ii) Increase the supply of energy from indigenous renewable energy sources, iii) Increase the reliability, affordability and independence of modern energy supply in Zanzibar, iv) Implement a regulatory regime for the energy sector in Zanzibar to act as a coherent and coordinated framework for all development efforts within the sector, v) Achieve free market principles within the energy sector, with only well founded transparent regulatory interventions and vi) Involve all main stakeholders in coordinated

actions while considering the future, social and economic development and poverty reduction in Zanzibar.

Field assessment noted that, all health centers visited in Unguja and Pemba are supplied with electric power for running health services. However, Diesel generators are installed as an alternative energy in case of power for most of health centers. To reduce emissions from generators, it is advised to use efficient energy technologies such as solar power or gas generators. However, such decision or consideration may be considered in the IPW4ED Project for all health centers earmarked for rehabilitation and extension under this project. These efforts will conform to the energy policy as well as National Environmental Policy of 2013 for Zanzibar that requires protection and conservation of the environment, mainstreaming environmental norms into development projects in Zanzibar. This ESMF encourages application of energy efficient technologies that aims to reduce emissions to promote application of environmentally sustainable energy sources.

3.2.7Zanzibar HIV/AIDS Policy, 2006

HIV/AIDS is a cross cutting issue that affects all sectors. It affects development issues and its control is complex, difficult and costly, and needs strong determination and practical interventions. Zanzibar HIV/AIDS policy outlines that the large group of people in the Islands especially youth are at high risk of being affected by HIV/AIDS which is contributed by high influx of people due to tourism industry. The youth group has been identified as the main productive force especially in the agriculture, trade and service sectors. Therefore, if measures are not taken to reduce new infections, Zanzibar will experience decreasing production rate, and thus increasing poverty levels which leads to increased vulnerability to many hazards such as hunger and diseases outbreaks. The proposed project will have to recognize the need to address HIV and AIDS at the work place and surrounding local communities as an important measure to protect the Island's work force for sustainable socio-economic development. This ESMF insists that, the implementation of the proposed project should ensure compliance with this policy.

3.2.8 Child Protection and Development Policy, 2001

The policy considers children as part of the most vulnerable individuals during project implementation. They are the ones who are affected in diseases, deaths, child labor, disability, ignorance, neglecting, food insecurity and the likes. The child protection policy has articulated various protective and development strategies which will ensure that they are protected and developed. For example, Child Labour is strictly prohibited, so any project undertaken in Zanzibar should comply with the policy without compromising. This ESMF observed the policy and

recommends its compliance during implementation of the IPW4ED Project particularly during rehabilitation and extension of Primary Health Care Units (PHCU and PHCU+).

3.2.9 Zanzibar Digital Health Strategy (2020 – 2025)

The Zanzibar Digital Health Strategy for 2020-2025 aims at improving the provision of safer, equitable, accessible, efficient, and effective health services at all levels through proper use of digital health technologies. Its objectives include; to increase use of client level systems that facilitate delivery of safe and quality health care, to enhance the use of digital solutions for quality improvement, health promotion, disease surveillance and response, to facilitate effective data use for evidence-based actions, to facilitate interoperability of systems for effective and secure sharing of health information across the health sector, to improve health planning and resources management, to improve logistics and supply chain management of health commodities, to improve ICT infrastructure and technical support services for sustainable utilization of digital health at all levels of the health system and to strengthen digital health governance and leadership across the health sector.

This ESMF has taken into consideration the Zanzibar Digital Health Strategy as it is relevant to the proposed IPW4ED Project that will involve rehabilitation and extension of Primary Health Care Unit (PHCU and PHCU+) at various places in Zanzibar. Therefore, the implementation of the project should be in line with this strategy.

3.2.10Zanzibar Development Vision 2050

Zanzibar Development Vision 2050 (ZDV50) is a long-term national development plan formulated by the Revolutionary Government of Zanzibar (RGoZ) to guide Zanzibar's overall development agenda from the year 2020 to 2050. ZDV50 has the overarching aspiration of lifting Zanzibar economically and socially to attain Upper-Middle Income Status (UMIS) by 2050. The vision is centered on human development as it desires improvements in economic growth to be accompanied by higher overall standard of living as well as the attainment of near-zero extreme poverty in Zanzibar. The objectives of the ZDV50 are embedded in four pillars, that is, economic transformation, human capital and social services, governance and resilience, and infrastructural linkages. Each pillar has its objective and strategic directions.

For example, under pillar II - human capital and social services, the objective is to develop a healthy, competitive, innovative and productive human capital base, supported by reliable and sustainable social services for all, in order to contribute effectively to national and global development. Among the strategic direction under this pillar include maintaining an equitable

and sustainable universal healthcare system accessible to all, provided by highly skilled healthcare professionals and supported by modern medical technologies and facilities. This strategic direction under the ZDV50 is very relevant to the proposed IPW4ED Project. The implementation of the project therefore should go in line with the ZDV50 and its objectives and relevant strategic directions. This ESMF has observed the ZDV50 during its preparation and recommends fully integration of the vision to ensure that it is incorporated in implementation of the proposed IPW4ED Project.

3.3NATIONAL LEGAL FRAMEWORK

3.3.1 Zanzibar Environmental Management Act, no.3 of 2015

The Zanzibar Environmental Management Act No. 3 of 2015 (ZEMA 2015) was recently assented on 27th March 2015 and replaced the former Environmental Management for Sustainable Development Act (EMCDA) of 1996. The Act is the key piece of legislation that governs environmental management in Zanzibar and also has a role of providing general supervision and coordination of overall matters relating to the environment. It has provisions for establishment of protected area system in Zanzibar, control and management of specific environmental threats and biological diversity as well as provisions for general environmental obligations, administration and planning. Under this Act, the Zanzibar Environmental Management Authority (ZEMA) is mandated to undertake enforcement, compliance, review and monitoring of environmental and social impact assessment.

For example, section 39 (1) of this Act stipulates that a person shall not carry out or cause to be carried out, any activity which is likely to have significant impact on the environment and society without Environmental Impact Assessment Certificate issued by the Authority under this Act. Moreover, section 45(1) states that a person who undertakes any activity that does not require an Environment Impact Assessment shall prepare an Environmental Report as may be prescribed by the Regulations made under Section 39(3) of this Act and the Authority shall, upon satisfaction of Environmental Report, issue an environmental clearance certificate on such activity. The Act also vests powers to the ZEMA to determine whether the proposed project should be subjected to an ESIA, approves consultants to undertake the ESIA study, invites public comments by way of public hearing and also has the statutory authority to review ESIA and issue ESIA certificate or refuse. The proposed IPW4ED project will involve rehabilitation and extension of health centers at various places in Zanzibar would require ESIA study as stipulated in section 40 of the Act. This ESMF recommends compliance to all relevant sections of this Act.

3.3.2 Environmental Impact Assessment (procedures) Regulation, 2002

The regulation was established to set out the procedures and regulatory system for carrying out Environmental Impact Assessment (EIA) in Zanzibar. The regulations stipulate that EIA must be prepared in the manner that it is analytic, concise and not longer than necessary. Furthermore, regulation 9 dictates page limit of the EIA report as it requires the text of the final Environmental Impact Assessment report to be normally less than 100 pages, as a standard format. Since the ESIA takes into account environmental, social, cultural, economic and legal considerations, identify anticipated impacts, analyze alternative options, propose mitigation measures and develop management plans, then compliance to the regulations is compulsory to ensure comprehensiveness of the ESIA report. This ESMF observed the regulations and insists its compliance during the ESIA process and implementation of the proposed project.

3.3.3 Forest Resources Management and Conservation Act, 1996

The Forest Resources Management and Conservation Act provides for promotion, protection, conservation and development of forest resources for the social, economic and environmental benefits of present and future generations of the people of Zanzibar, to achieve sustainability and efficiency of forest resources. The Act encourages and facilitates the active involvement of local communities in sustainable planning, management, use and conservation of forest resources. Section 32 of the Act provides for the adherence of the Act in the use of forest resources and states that "Unless authorized by a license or any applicable forest management agreement, no person shall do in any forest reserve, or any area subject to a notice of intent". During implementation of IPW4ED Project in Zanzibar, there will be use of forest resources such as timber, poles, etc. The MOH/developer should therefore ensure that these forest resources are obtained in a manner that conform to all requirements of this Act.

3.3.4 The Town and Country Planning Act, 1955

The Act aims at establishing procedure for the preparation, administration and enforcement of land use plans. The policy framework requires that all persons applying this act protect the environment from pollution, degradation and destruction in order to attain sustainable development. This ESMF has assessed the provisions of this Act and thus the proposed project shall take into account all the provisions to comply with national laws. The developer (i.e. MOH) shall abide to all the relevant provisions of the Act particularly in ensuring sustainable use of the land according to the proposed land use plan. The developer shall also safeguard public health and safety and the environment particularly lands.

3.3.5 Zanzibar Land Tenure Act, 1992

The proposed IPW4ED Project will involve rehabilitation and extension of Primary Health Care Unit (PHCU and PHCU+) and some of them may involve into land acquisition for extension purposes such as Fuoni Health Center, Jang'ombe health center, etc. which have very limited space for provision of health services and not enough for expansion. It is likely than they will relocate nearby settlements for land acquisition. If this will happen, then relevant sections of this Act concerning land acquisition and compensation must be adhered to. Compensation to project affected people should be done before commencement of the proposed project. Moreover, compensation should be equal to the fair market value of the land. Therefore, all project affected people whose houses, properties or farm plots are to be demolished/taken or converted should be compensated according to the requirement of this Act.

3.3.6 Regional Administration Act

The Act specifies powers and function of the Regional, District, and Shehia Government administrators. It covers all matters related to the social, economic, and environmental governance in the lower administrative units such as in the Shehia. Section 22 (1) (d) of the Act states that Regional development committees established under this Act have been given a responsibility to mobilize people to participate, contribute, and if possible, assist in the use and management of natural resources, protection of environment for sustainable development and in all activities of national development. Therefore, the MOH as the developer should ensure full collaboration with the regional, district and Shehia governments during implementation of the proposed IPW4ED Project. The developer/MOH also should ensure collaboration and coordination with the community during execution of the proposed project and ensure all the provisions of the Act are adhered to.

3.3.7 Zanzibar Water Act

The Zanzibar Water Act provides for an establishment of the Water Authority for Zanzibar that has the jurisdiction of all matters pertaining to management of water. The Act includes provisions on; i) Regulating, controlling, managing and protecting all catchment areas, ii) Promoting the conservation and proper use of water resources, iii) Managing production and distribution of water on sustainable basis, iv) Specifying standards of water quality, effluent and water equipment, v) Advising the Government in formulation of policies related to the development and conservation of water. The Act also provides the basis of regulating water distribution and supply to the community. Since the proposed IPW4ED Project will also involve rehabilitation and extension of Primary Health Care Unit (PHCU and PHCU+), will definitely involve use of water

during its execution, then the developer and the contractor should ensure all the provisions that are relevant to water use are adhered to. This ESMF recommends compliance to all relevant sections of this Act.

3.3.8 The Zanzibar Contractors Registration Act No.6 of 2008

The MOH should comply with the Zanzibar Contractors Registration Act (ZCRA) of 2008 during recruitment process of contractors for implementation of the IPW4ED Project particularly during Rehabilitation and Extension of Primary Health Care Unit (PHCU and PHCU+). The act requires contractors to be registered by the Zanzibar Contractors Registration Board (ZCRB) before engaging in practice. Section 20(1) of the Act stipulates the qualifications of contractors who are eligible for registration. Section 20(3) explains that upon registration the person shall be issued with a certificate of registration indicating the registration number, type, category, class, date of registration and duration of registration.

Also, section 21(1) elaborates that a firm or person can be granted a temporary registration. Section 22(1) states that a person who is not a Zanzibarian shall not be allowed to form a local contracting firm unless the majority of its shares are owned by Zanzibarian(s). Section 22(2) stipulates that the firm or company shall be registered as a foreign firm or company if the conditions under 22(1) are not fulfilled. Among other duties the Registrar of the ZCRB under section 17(1) keeps the register of contractors of different types (such as building contractors, civil work contractors, electrical contractors, etc.), publish (the names, postal address, premises, registration number, etc.) in the official Gazette and local news media of the registered contractors.

3.3.9 The Zanzibar Contractors Registration By-laws 2010

The by-laws were made by the Board purposely in exercising the powers conferred upon the ZCRA of 2008 under section 49. Section 3(1) of Zanzibar Contractors Registration by-Laws 2010 stipulates application requirements for registration or upgrading for contractors. Section 4(1) requires that any foreign firm intending to carry out a specific contract for which it has been contracted shall submit to the board the application on form ZCRB-F5 set out in the first schedule upon the payment of an application fee as set out in Table 12 of the second schedule. Section 4(2) stipulates the required information such as company profile, particulars of the contracted project, certificate of compliance from the registrar of companies, a letter from the client supporting the application, just to mention the few, that need to be filled in the form.

Other important requirements are explained in section 18A (1) where every contractor registered with the board shall register his/her project prior to the commencement of a project as well as section 20(1) which state that any contractor who has been suspended or deleted from the register shall return the certificate of registration to the Registrar within one month after being informed of the deletion or suspension. This ESMF urges the developer to fully adhere to this legislation.

3.3.10 Zanzibar Labour Relations Act No.1 of 2005

The Act provides provisions for Labour relations and stipulates all Labour Relations aspects in Zanzibar. For example, section 4(1)(a)(b) stipulates the basic employee's rights whereby every employee shall have the right to take part in the formation of a trade union or federation of trade union and be a member of a trade union, subject to its constitution. On the other hand, section 6(1) stipulates that every employer has the right to (a) take part in the formation of an employers' organization and (b) be a member of an organization, in accordance with its constitution. The Act under section 8(1) gives protection of trade union against interference and section 54(1) elaborates on the employees' right of bargaining collectively and this shall apply to all employees not excluded under this Act. However, section 54(2) gives the categories of employees that are excluded from the application of the right to bargain collectively. The implementation of the IPW4ED project therefore should comply with the Zanzibar Labour Relations Act No.1 of 2005 and this ESMF recommends compliance to all relevant sections of this Act.

3.3.11 Zanzibar Public Procurement and Disposal of Public Assets Act no. 11 of 2016

The Act provides key provisions regarding public procurement and Disposal of Public Assets in Zanzibar. According to section 4(1) of the Act, the established Public Procurement and Disposal of Public Assets Authority shall be autonomous body of the government and its functions as per section 5(1) (a-x) include; maximize economy and efficiency in public procurement, obtain value for money in public procurement, promote integrity and public confidence in public procurement processes, oversee the activities of procuring entities and examine and consider their recommendations, issue guidelines under this Act, register and maintain a register of providers of works, services and supplies, establish and maintain electronic procurement system, to set standards for the public procurement and disposal systems in Zanzibar, to maintain a register of providers and procurement professionals, etc. Section 8(1) provides for the establishment of the Board of Directors for the authority which shall execute the functions and powers as provided under Public Procurement and Disposal of Public Assets Act. The board shall be responsible for the general direction and supervision for the functions of the authority as per section 10(1) of the Act. The MOH therefore should comply with all relevant sections of this Act during implementation of the IPW4ED project regarding procurement and disposal of public assets.

3.3.12 Zanzibar Public Procurement and Disposal of Public Assets Regulations of 2021

This regulation is meant to regulate operations under public procurement and Disposal of Assets in Zanzibar. According to part one of the regulation section 2, the regulations shall apply to all public procurement of goods, works, consultancy and non-consultancy services undertaken by a procuring and disposing Entity except wherethe context provides otherwise in which the provisions of that Act shall prevail. Section 4(1) of the regulations gives the basic principles for undertaking or approving procurements. For example, in section 4(2) requires that all public officers including Accounting Officers and members of Tender Boards shall, when undertaking or approving procurement beguided by the following basic considerations: (a) the need for economy and efficiency in the use of public funds in the implementation of projects; (b) the best interests of a public body in giving all eligible bidders equal opportunities to compete; (c) encouragement of national manufacturing, contracting and service industries; and (d) the importance of integrity, accountability, fairness and transparency in the procurement process. In addition to that, section 5(1) requires public officers, members of Tender Boards and Accounting officers, when undertaking or approving procurement shall choose appropriate procedures and cause the procurement to be carried out diligently and efficiently. This ESMF recommends compliance to all relevant sections of the regulations regarding public procurement and disposal of public assets during implementation of the IPW4ED.

3.3.13 Zanzibar Revenue Board Act, no.7 of 1996 (Revised Edition of 2013)

The Revised Edition of the Zanzibar Revenue Board Act, No. 7 of 1996, incorporates and consolidates all amendments made in the Act since its commencement up to July, 2013 for easy reference of the Act. According to section 5(1) of the Act, the functions of the Board shall be (a) to ensure fair, transparent, efficient and effective administration and enforcement of (i) the laws and regulations concerning revenue collection in Zanzibar as set out in the Schedule to this Act (ii) any other legislation concerning the collection of revenue that may be assigned to the Board by a ministry, department or any authority which administers such legislation (b) to assess, collect and account for all revenues to which laws referred to in subsection (1)(a) of this section apply (c) to promote voluntary tax compliance and maximize revenue collection (d) to maintain and preserve statistical data on revenue collection (e) to take such measures as may be necessary to improve the standard of service given to taxpayers by the Board, with a view to improve the effectiveness; and (f) to collect and process the statistic needed to provide proper revenue forecasts and the effect on yield of any proposed changes in revenue laws. This ESMF therefore requires the MOH to ensure comply with all relevant sections of Zanzibar Revenue Board Act in

order to ensure all revenue aspects are addressed accordingly during the implementation and operation of the IPW4ED. For example, during importation of hospital machines or equipment and other appliances.

3.3.14 Tanzania Revenue Authority Act, No. 1.1 of 1995

This Act apply to all revenue matters in Mainland Tanzania and Zanzibar. Part 1 section 2 this Act shall apply to Tanzania (Zanzibar as well as to Mainland Tanzania). Section 5(1) of the Act stipulates the functions of the Authority that include (a) to administer and give effect to the laws or the specified provisions of the laws set out in the First Schedule to this Act, and for this purpose, to assess, collect and account for all revenue to which those laws apply; (b) to monitor, oversee, coordinate activities and ensure the fair, efficient and effective administration of revenue laws by revenue departments in the jurisdiction of the Union Government; (c) to advise the Minister and other relevant organs on all matters pertaining to fiscal policy, the implementation of the policy and the constant improvement of policy regarding revenue law and administration; (d) to promote voluntary tax compliance to the highest degree possible; (e) to take such measures as may be necessary to improve the standard of service given to tax payers, with a view to improving the effectiveness of the revenue departments and maximizing revenue collection; (f) to determine the steps to be taken to counteract fraud and other forms of tax and other fiscal evasions. Section 9(1) of the Act establishes that there is a Tanzania Revenue Authority Board that is a governing body of the Authority and according to section 9(2) the Board shall be a statutory organ, responsible for the formulation and implementation of the policy of the Authority. Also, section 13(1) stipulates that the Board shall recommend to the Minister, criteria or factors by reference to which any exemption, mitigation, deferment or remission may be granted and section 13(2) where the Minister shall by order published in the Gazette specify the criteria or factors recommended under subsection (1). The implementation of the IPW4ED project should adhere to the provisions of the Act and this ESMF recommends compliance to all relevant sections of the Act.

4.0 BASELINE INFORMATION

4.1 Zanzibar Climatic Condition

The Zanzibar Climate is mostly influenced by monsoons with two peak rainfall seasons. The rainfall pattern is bimodal in nature. The long rains are from March to May with peak rains in April while the short rains are from Mid-October to December. The average annual rainfall is 1600 mm and 1900 for Zanzibar and Pemba, respectively. The wettest Months are April and May with more likelihood of flood events. The distribution of rainfall indicates that there is more rainfall in the western halves of each island that in the east. The temperature in Zanzibar is high throughout the year with the warmest season from October to March with maximum temperature around 31/330 C whereas in the worst moments, the temperature can reach up to 36/38 °C. Cooler seasons are experienced between May and August when there are southeast winds with high temperature around 290 C. The relative humidity is high, with monthly average ranging from 75% to 85%.

4.2 Topography

Zanzibar Island comprise two main islands namely Unguja and Pemba Island which are part of Tanzania. Unguja island is 85 kilometers long (north-south) and 30 kilometers wide (east-west) at its widest, with an overall area of about 1,666 square kilometers. It is characterized by small ridges along its central north-south axis, formed as result of sediment deposition by the south-north flowing deltaic streams (before break up), producing several corridors, predominantly the north south ridges. These corridors still form conspicuous land patterns as evidenced at some location in Unguja at Kiwani Bay, Bumbwini and Bambi. The present remnants of these corridors are found as broken corridors due to block faulting and differential uplift, which resulted in formation of Unguja and Pemba Islands. The highest ridge in Unguja is located at Masingini, about 120m above the sea level (ESMF ZECCO, 2020).

The Pemba Island consists of a flat-topped ridge about 9.5 km (6 mi) wide, deeply bisected by streams particularly on the center and west. In some areas it is hilly, but its highest point is only 95 m (311 ft.). Apart from the narrow belt of coral in the east, the island is more fertile than Unguja. The main town of Pemba Island is ChakeChake which sits right in the heart of the island and is the location for the small airport and around 70% of the Pemba's population with the main agricultural export being cloves.

4.3 Soils

The soils of Zanzibar fall under three main groups depending on the geological feature of parent rocks; 1) sandy soils, 2) calcareous red soils, 3) clay soils. The sand soil group derived from non-calcareous sediments, the sandy group varies from very deep sandy to rather heavy reddish through brown, yellowish grey, to grey shallower types. The calcareous red soils are the free draining soils derived from limestone. The clay soils derived from clays and mudstone. There are five main soil categories called Mchanga, Kinongo, Uwanda, Maweni and Kinamo in Unguja. Maweni soil is located in the coral rag limestone that forms the extensive eastern and southern portion of the island. This soil covers more than 40% of arable land and supports traditional shifting cultivation. Mchanga soil is found on the western part of the island covering 20% of land area. This soil is suitable for both tree and annual crops. Uwanda soil forms the interface between the plantation area and coral rag zones covering 17% of the area. This soil is generally open grass area for unimproved grazing. Kinongo soil is the most fertile in the island and provides high potential for food crop production. Kinamo soil covers only 5% of the land area and is found in the north and small patches in central and south zones. This soil is suitable for rice cultivation.

Table 3: Soil type FAO Classification

Soil Type	FAO Classification
Reddish Mchanga	Haptic Acrisols&EutricGleysols
Greyish Mchanga	Umbric Gleysols, Dystric Fluvisol, Mollic&EutricGleysols
Sandy Mchanga	Cambic Arenosols, Umbric Gleysols, CalcaricRegosols, Areni Haptic Acrisols
Deep Kinongo	Haptic & Ferric Acrisols, RhodicFerralsols
Shallow Kinongo	RhodicFerralsols, CalcaricCambisols
Kinamo	CalciVertisols, Areni Gleyic Cambisols, Haptic Nitisols
Maweni	RendzicLeptosols, Lithic Leptosols
Uwanda	MollicLeptosols

4.4 Population

The National Census of 2012, indicated Zanzibar's population of 1.3 million. This population was further specified which indicated that 900,000 of population belong to Unguja, and 400,000 belong to Pemba. By 2020, Zanzibar's population was projected to increase up to 1.6 million people with an estimated population growth rate of 3.1 percent per year. Over 60 percent of the populations live in urban areas. The region with the largest population are Urban West which accounts for 46 percent of the total population of Zanzibar. The region with the smallest population is South Unguja followed by North Unguja. The population size is determined by birth rate, mortality rate and internal movement of people from one part of the country to another. In

Zanzibar all regions have negative net migration except Urban West region which pulls migrants from all the regions due to presence of Stone town and availability of other services like markets. Moreover, recent studies and surveys show that 70% of urban population in Zanzibar lives in informal settlements. High rate of urbanization, low income, lack of development control mechanisms and confusion on municipal and master plan boundaries are among the causes for emerging informal settlements in Zanzibar (ESMF-ZECCO, 2020).

This ESMF realizes the need for big populations to have assurance of strong health system and services and calls for strong determination in strengthening health services in the entire Island of Zanzibar. The proposed rehabilitation and improvement of health centers and services will promote sustainable development in health services.

4.5 Tourism

Tourism is one of the key sector for Zanzibar economy, supporting tens of thousands of jobs in the service sector, representing an important source of government revenue and GDP growth. Zanzibar's tourism sector is directly linked to the blue economy, particularly marine tourism and beach holidays. Recently there has been a significant increase in tourist arrivals in Zanzibar, with an average annual growth rate of nearly 18.7% between 2011 and 2019. In 2019 specifically, the number of tourist arrival was 583,264. It is estimated that there are about 22,000 direct jobs in the tourism sector, of which 76% are employed at one of the 473 hotels in Zanzibar (ZCT, 2017; Ministry of Information, Tourism and Heritage, 2017). The sector has more potential for growth as emerging markets keeps increasing.

Nevertheless, various environmental issues, including pollution, inadequate waste management, degradation of beach and marine environment, and unsustainable use of natural resources, such as freshwater and firewood, threaten the sector. With the tourism sector mainly focusing on marine tourism ('sun and sea' holidays, diving, snorkeling, boat trips, etc.), a lack of proper growth management may lead to the degradation of marine habitats, loss of ocean biodiversity, sea pollution and over-exploitation of marine resources – outcomes that are contrary to the blue economy guiding principles. Sustainable management of tourism sector would enable the economic benefits generated from tourism to support the utilization, rehabilitation and restoration of the environment including marine natural resources. A 2007 Trip Advisor survey, for example, revealed that 38% of travelers took environmental friendliness into consideration when booking accommodation, with 34% willing to pay more to stay in eco-friendly hotels (Pollock, 2007). Meanwhile, CESD and TIES (2005) found that a majority of international tourists were interested in the social and environmental issues related to the visited destinations, expressing

interest in hotels committed to protecting the local environment. In addition, the natural heritage of Zanzibar represents one of the most important drivers of the tourism industry, with marine tourism drawing substantial tourists and generating income. The success of this sub-sector relies on the ability and willingness to preserve, conserve and sustainably use natural heritage and marine resources.

This ESMF requires Zanzibar to strengthen health sector to ensure sufficient health, safety, security and availability of reliable health services for tourists in case of emergence health service needs anywhere in the entire Zanzibar. A state of feeling or being in a secured place health wise strongly attracts and gives confidence tourists in Zanzibar.

4.6 Energy Resources

Zanzibar depends on electricity from Mainland Tanzania through TANESCO which is purchased under separate PPAs for Unguja and Pemba. The power in Unguja and Pemba is connected through submarine cables of 100 MW and 25 MW capacities, respectively. The energy sector in Zanzibar still faces challenges such as unreliable electric power, petroleum and petroleum products. Hence it is supplemented by firewood which is widely used followed by Coal and gas which rarely used for both domestic and industrial purposes. It is estimated that 55% of the total energy demands is met by firewood, 12.8% by charcoal and 6.4% by agricultural wastes. Electricity accounts only for 4.7% and fossil fuels for 15.3%. Due to limited resources of for charcoal making, a substantial amount of charcoal is imported from outside Zanzibar. Electricity demand in Unguja is growing rapidly and the existing 100MW submarine cable is projected to reach its maximum capacity in the next three/four. The high demand of electricity in the island is mainly driven by tourism sector.

The ZECO's Electrification Master Plan (EMP), planned to achieve 53 % of the population to have access to electricity by 2020; and to increase up to 95 % by 2030. It also estimated the power peak to increase from 53 MW to 116 MW, while the power consumption was estimated to increase from 253 GWh to 695 GWh. Recently ZECO grid covers about 82% of Zanzibar well within the estimated level. Therefore, the issue is not the grid coverage, but the willingness of households to connect to the grid due to affordability reasons. Alternative source is through renewable energy mainly through the development of individual renewable energy-based devices in selected regions where the grid is not fully developed.

Field assessment in January 2022 revealed that all health centers have electricity. This is due to good coverage of electricity service in Zanzibar. There was no complain on power supply in all

health centers visited. This ESMF supports the good coverage of electrical power in all health centers and further insists continuation of efficient and sufficient power supply in the entire Zanzibar in support of health services.

4.7 Water Resources Availability

Zanzibar water resources can be generally categorized into Ground and surface water. Groundwater aquifers are recharged by rainwater. Groundwater recharge during the heavy rainy is estimated to 46% and 23% of the total rainfall of the year. The highest recharge occurs during April to June and November to January. The water from the aquifers discharges into the sea and is considered a potential source of salt intrusion which might be irreversible in future. Thereafter, flow extracted from the aquifers discharge into the sea (Pili Masoud Kaku, Zhu Haochen , Peter Njoroge Murigi, 2019). Water resource for human consumption in Zanzibar is mainly dependent on groundwater resource. Table 4 below indicates the annual water budget for Unguja and Pemba which was projected to 2015.

Table 4: Annual water budget in Unguja and Pemba

Description	Unguja	Pemba	Total
Average annual Rainfall	2,445	1,525	3,970
Estimated Groundwater recharge	565	121	686
Acceptable aquifer yield	293	46	339
Estimated actual abstraction	60	11	71
Estimated ZAWA abstraction	23	10	33
Irrigation & Private wells	n/a	n/a	n/a

(Source: ESMF 2020, BIG-Z)

4.7.1 Surface Water Availability

Zanzibar river network consists of some streams of two kinds; those which reach the sea and those do not reach the sea. These can be categorized into coastal rivers, inland rivers and springs. Coaster rivers flow and reach the sea and in the north west of Zanzibar there are four major rivers, which flow and reach the sea. In the western coast of the islands, there are minor streams such as Mtoni and Bububu. Inland Rivers are those rivers which does not reach the sea whose water flow disappear in coral rag limestone and sink holes which are locally known as Pokezi or Kibonde. Examples of such rivers are Mwera, Pangeni and Kinyasini. These rivers contribute immensely to the recharge of aquifers. Springs is one of the sources of water which supply some cosmopolitan areas in Zanzibar. Rapid population increase in urban and suburban areas has triggered Zanzibar

Water Authority to resort to underground water to complement the river supply. Examples of useful springs are Mtoni and Bububu. In spite of the existence of Springs in Kiwani/Kombeni bays and in Fuoni-Jumba area, salt intrusion has made their water unpalatable. Nonetheless, the springs are useful in discharging salty water onto the surface and back to the sea to reduce further rise of salt line in the overall groundwater/saline water interface.

Furthermore, the island has both perennial and ephemeral rivers. Pemba has exceedingly more rivers than Unguja. The discharge from these rivers is reduced drastically during the dry season. Just to mention few, some of the rivers include, Kitope River (Kitope River) in Zanzibar North Region, Kipange River (Kipange River) in Zanzibar North Region, ZingweZingwe River is a stream in Zanzibar North, Chumbuni River in Zanzibar Urban/West, Mwera River in Zanzibar Urban/West Region and ZingweZingwe River in Zanzibar North Region (Table 5). However, during the rainy season (Masika) all rivers flood rapidly discharge more water several times than during the low flow periods. This water rapidly drains to the Indian Ocean or disappears into the coral limestone.

Table 5: Rivers and Streams in Zanzibar

River/stream	Catchment	Length	Discharge	Runoff	Location	End of	
	Area			potential		outflow	
Chumbuni River	-	-	-	-	Zanzibar Urban/West	Indian Ocean	
Kitope River	-	-	0.4	40 - 55%	Zanzibar North Region	Indian Ocean	
Kipange River	15.0	9.0	1.67	40 - 50%	Zanzibar North Region	Indian Ocean	
ZingweZingwe River	9.0	25.5	0.77	30 - 50%	Zanzibar North Region	Indian Ocean	
Mwera River	28.0	20.0	1.7	40 - 50%	Zanzibar Urban/West Region	Indian Ocean	
Mwanakombo	10.0	9.2	1.78	40 - 55%	Zanzibar North Region	Indian Ocean	
Bwabwaja	3.6	6.0	1.33	-	Zanzibar North Region	Pokezi	
Mawe	4.5	5.3	1.07	-	Zanzibar North Region	Pokezi	
Kinyasini	7.6	9.7	1.10	45 - 60%	Zanzibar North Region	Pokezi	
Pangeni	8.6	23.0	1.07	-	Zanzibar North B Region	Pokezi	
Bububu	-	-	0.2	30 - 40%	Zanzibar Urban/West	Indian Ocean	
Mchanga	-	-	0.4	30 - 40%	Zanzibar North Region	Indian Ocean	

(Source: ESMF 2020, BIG-Z)

Almost all surface water streams in Unguja have several flooding outputs with peak discharge in a short time in rainy season, but have low or no discharge in the dry season. These streams are divided into those that reach the sea and those that do not. The four systems flow to the sea in the northwest sector of island, and there are smaller streams along the western coast, such as at Bububu, but they do not represent a significant economic resource, apart from channeling heavy flow of rain water downstream and into the sea during the heavy rainy seasons.

4.8Vegetation Cover

The main vegetation covers in Zanzibar is influenced by regional formations and can be classified into four main physiognomic types encompassing: (i) Grassland (ii) Bushland (iii) Cultivated lands with settlements and (iv) Restoration vegetation

Grassland covers various opportunistic grass species which are frequently cleared or slashed. The common grass species seen throughout include Heteropogoncontortus, Cynodondactylon, Dactylocteniumgeminatum, Digitaliaciliaris, Eleusinecorocana and Hyparrheniafilipendula.

Bushland covers an assemblage of woody shrubs and dwarf trees exposed to constant clearing and pruning. Dominant small trees throughout the island include Blighiaunjugata, Albizialebbeck, Annona senegalensis, Ziziphusmucronata, Balanitesaegyptics, Flueggeavirosa, Millingtoniahortensis, Tremaorientalis, Sorindeiamadagascariensis, Suregadazanzibariensis, Dryopteris natalensis, Syzygiumcumini, Antidesma venosum, and Mallotusoppositifolia. Dominant herb climbers include Acalyphaclaoxyloides and Perquetinanigrescens.

Cultivated Lands with Settlements covers various agricultural crops such as Plantains, Cassava, Yams, Coconut, Mangoes, Oranges, Papaya, Almonds, Bread fruit, and other vegetables, etc. **Restoration vegetation** include Acacia and Casuarina Trees.

4.9 Biodiversity

The Zanzibar Island has a diverse of critical habitats which harbor various flora and fauna of global importance such as Pemba island which has been identified as an important bird and key biodiversity area. This is attributed by the presence of significant population of globally threatened species and significant population of endemic species known only to be found in limited areas. The island is endowed with mangrove vegetation (cover nearly 6.1%) of the total land area. The mangrove forest area is the second largest natural forest vegetation after the coral rag thicket, which is estimated to cover 40% of the total land area (RGoZ, 2015).

Unguja island is also an important bird and Key Biodiversity Area based on the presence of significant congregation of one or more bird species at certain times of their life cycle or seasonal migration. Plant and animal species in the two islands are threatened by environmental degradation associated with unsustainable anthropogenic activities. This includes 276 bird species, endangered and threatened mammal and amphibian species, and coral reefs in surrounding waters. Introduction of a network of Marine Protected Areas is one of the important measures taken to protect ecosystems and biodiversity (figure 1 below). Marine protect areas in

Zanzibar includes Chumbe Island Coral Park, Menai Bay, Misali Island and Mnemba (Spaulding et. al. 2001). While on terrestrial ecosystem there are forest reserves which are Jozani, Ngezi, Kiwengwa/Pongwe. Many of these resources are under threat, for example, deforestation for charcoal production.

The field assessment and discussion with project implementing institution (MOH) noted that, none of the proposed heath center will be located in critical habitats, forest reserves of higher ecological importance or any sensitive ecosystems. The ESMF further recommends environmental and social impacts assessments (ESIAs) for specific health centers to identification risks and impacts to biodiversity or any environmental degradation and proposed ways to minimize and mitigate them for protection and management of the environment.

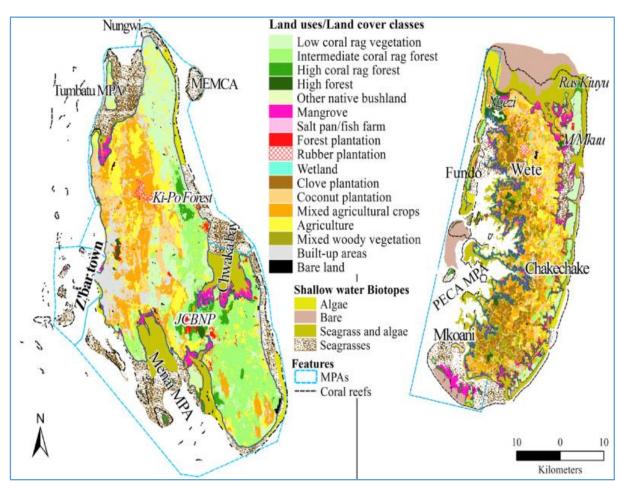


Figure 1: Land uses and marine protected areas (MPA) in Unguja and Pemba Islands (Khamis A.Z. et al,2017)

4.10Human settlements and Urbanization

The Zanzibar island comprise of planned and unplanned/informal settlements. About 70% of the urban population lives in these informal settlements (Ali & Sulaiman, 2006). Zanzibar is a predominantly rural archipelago within a largely rural population (60%), with most people living in villages. Despite rapid urbanization, there has been a threefold increase in the rural population, adding to pressure on land and forests in rural areas (Wenban-Smith, 2014). Rapid urbanization is taking place in Zanzibar creates enormous pressure on the city authorities to match the provision of basic services (including clean water supply, sewage and waste management, land, transportation, health, education).

Field assessment for the proposed project areas covered both urban and rural areas. 12 health centers in Pemba and 20 health centers in Unguja were visited, it was noted that most of the health centers are located in rural areas and securing land for extension or development of new health center is not a major challenge. For urban areas, two proposed health centers were visited namely Fuoni and Jang'ombe Health centers which are located in urban area particularly high density areas. The two health centers are surrounded by human settlements with limited space due to higher urbanization. Securing land was revealed to be difficult as may involve resettlement and compensation. However, the health centers serve a huge number of populations and were recommended for vertical extension to minimize land required for extension.

4.11Poverty level

Poverty reduction in Zanzibar has should some progress in some areas particularly Unguja compare to Pemba. The percentage of population living below basic-needs poverty line was 34.9% in 2010 while in 2015 was 30.4%. The decrease in poverty was observed mainly in Unguja where more people, about 60% of population resides. Contrary to Unguja, the poverty in Pemba was observed to increase to 55% from 48%. The population in Pemba shows that, about 80% lives in rural areas. According to rural setting, most of people depend on fishing and agriculture for their livelihood and spend on average of 18% of their income on energy, water and housing.

Similarly, field assessment in January 2022 revealed that, the status of health centers is worse in Pemba compare to Unguja. Some areas have very poor health services and residents have to travel long distance to access health services at District Health Centers. For Instance, in Kangaani Health Centre people travel about long distance to reach Regional Health Services which provides better

and efficient services compare to local health centers at their Shehia. Poor health services is among the factors contributing to poverty. Higher poverty level in Pemba well corresponds to poor health services which is one among the factors contributing to more poverty. This ESMF therefore emphasizes to strengthen health services with more focus to Pemba as one way of contributing to efforts regarding poverty reduction.

4.12 Health Services

The Mnazi Moja General Hospital is the main public hospital in Zanzibar Island's located on the south side of stone town. This is the referral hospital where most of complicated cases are referred to hence most people including visitors and locals use a private facility. Such private hospitals include Zanzibar Medical Group, a small private clinic and Zanaid Clinic. However, a number of Primary Health Care Unit (PHCU) are available in the entirely Zanzibar serving huge population both in urban and rural areas. District Hospitals are also among the most health services available and significantly serve the people of Zanzibar. They are also considered as referral hospital for cases which have not been resolved at different PHCUs in rural areas within the District.

From the fact that, Zanzibar has a relatively small population with a limited health budget, the Government cannot afford large advanced medical services which would require high level expertise and acquire advanced technologies. However, the existing health services has slightly contributed to improvement in life expectancy at birth, maternal mortality though the levels are still high. The Maternal mortality is still a problem in Zanzibar as there are 307 deaths per 100,000 live births (URT, 2015). The major causes of maternal mortality are hemorrhage before and after delivery, hypertension, eclampsia and anemia. Efforts to improve health care quality have been impeded by inadequate numbers of health providers and inadequate availability of essential medicine, diagnostic equipment and facilities as well as improved water supply at health facilities. Another cause of deaths in Zanzibar is traffic accidents.

Traffic risks is high due to the fact that roads are overwhelmed by number of vehicles and motor cycles. Traffic congestion increases when there is a motorcade of buses carrying tourists and given a police escort or an ambulance from the rural areas rushing a patient to the Hospital. The presence of reliable electricity can help in the lighting and the storage of vaccines in rural clinics, which reduces child mortality. Nevertheless, Malaria, HIV and AIDS and tuberculosis remains the major diseases which causes deaths among Zanzibar community.

4.13Status of health centers buildings

4.13.1 PHCU Buildings Condition

The environmental status of the PHCU structures can be categorized into three groups based on the condition of buildings.

Old PHCU Buildings

These include PHCU buildings that were constructed many years ago and some of them during colonial era thus they are very old and deteriorated. Most of them lacks some key facilities such as adequate hand wash facilities, adequate number of toilets, water supply system, entry with ramps for disabled people, special toilets for disabled people. Just to mention few of them Such situation was observed in Finya, Kangaani, Kangani, Uwandani in Pemba and KiombaMvua, KiziMkazi, Kitope, Mkokotoni, ect. PHCUs building in Unguja as well. In some areas there were no PHCU buildings at all, they are turned a residential house to be a PHCU center which is located within the center of human settlements and no enough space for provision of health services. However, the designs were not meant for health services.

Renovated PHCU Buildings

The Fuoni PHCU+ is one of the very busy PHCU serving huge populations. It has a number of old buildings that went through a major renovation. The renovations involved expansion and improvement of some buildings structures restored them to a reliable condition for provision of health services fulfilling PHCU+ functioning. The improvements also included important infrastructures and facilities for people with special needs such as disabled. However, the Fuoni PHCU+ is still congested with limited space. Expansion of this PHCU+ would likely involve resettlement/relocation of some few houses around in order to get enough space for the center, construction works, parking and service provision. Due to high demand of health service in Fuoni PHCU+ other development partners particularly UNFPA and UNICEF previously provided support for renovation, additional buildings and construction of Doctors House. The PHCU is very important and can hardly be moved to another location. The likely ideal is to relocated nearby residents for further extension of this PHCU+. Another PHCU which is located in Urban area is the Jang'ombe PHCU which is currently closed also had similar situation of limited space and congestion.

4.13.2 Work Place Condition

With exception of the Fuoni PHCU+; most of PHCU buildings infrastructures and work place conditions in the Zanzibar are generally not very conducive. The situation is even worse in Pemba

Island than in Unguja. The PHCUs are very small to accommodate all patients and associated health services. In other areas lighting is also a challenge as the design of the buildings were not specified for health facility services. The rooms are too small to accommodate efficient health services provision in some places. No special provisions for people with various disabilities. In some areas there is no adequate toilet facilities for those coming out patient. Some of the Doctors room are not provided with toilets, they are sharing with other out patients. No waiting bay/sheds to protect people from heavy rains during wet seasons or sun in the dry seasons. In most PHCU there is no water supply system, and are forced to fetch water using buckets from nearby residents. Almost all PHCU have no fire protection systems, fire assembling point for evacuation in case of fire incidence. Some PHCU buildings are located in the road reserve which will definitely be relocated to another area (Field assessment Jan. 2022).

4.13.3 Proximity to other services or land uses

Many PHCU buildings are located in areas close to other social services such as schools and residential premises. Adjacent land uses include public services (government offices), residential, commercial and farmlands. All PHCU are accessible by roads including adjacent or nearby communities and facilities These areas are also provided with other social services like roads (main and feeder roads), water, electricity, shops, kiosks for mobile electronic money transfer services and bank services which are important to health centers particularly in urban areas. On the other hand, for PHCUs buildings located along the roads and in business areas are affected by noise from business activities and vehicles passing along the roads e.g. Umbuji PHCU, etc. such areas noise interference with health service is quite common.

5.0. POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS

The Environmental and Social Management Framework (ESMF) provides potential impacts which are likely to occur during projects implementation that would require mitigation measures. However, during the appraisal stage the impacts are not site specific but rather overall impacts within the overall context of the project. The IPW4ED Project among other components will involve mostly rehabilitation and extension of health centers (including PHCU & PHCU+). Therefore, the project will involve construction activities and demolition of old health center buildings. Most of the construction activities will take place in the existing PHCU premises in areas which are already owned by the MOHSWEGDC and the project fund will not be used in land acquisition processes. Most of the sub-projects will take place in cities, municipals, towns, semi urban areas and villages.

The Environmental Management Act, 2015 of Zanzibar requires that, any projects should be subjected to environmental assessment prior to its implementation, therefore projection of potential impacts that would arise from this project provides a platform for better environmental management and compliance.

5.1 Potential Impacts

The implementation of the sub-projects in various places in Zanzibar will be associated with some risks and impacts which most likely going to occur at site and in the surrounding environment or communities. These impacts are indicated in Table 6 below.

5.1.1 Potential impacts during construction Phase

Table 6: Potential impacts during construction phase in the IPW4ED

No.	Impacts	Description and root causes		Mitigatio	n		Actors
	Positive impa	cts	se	everity			
1	Employment o	ppportunities	m	edium			
		The proposed extension and rehabilitation of he centers will take place in various Shehia in Unguj Pemba Islands. Therefore, a number of skilled unskilled labor will be required during construiting works. This demand will provide employ opportunities for these works to both local and local people. During field assessment, the people showed interest to participate in such and become part of the project through employ	a and d and uction ment non-local works	laws e. 18 yea • Provide employ	g. Child rs is probe short of the short of t	national policy and labor below hibited or long term contracts the position f the work	-MOH -Contractor

No.	Impacts	Description and root causes		Mitigatio	n	Actors
II	Increase of in	opportunities which will be available. The opposed will rehabilitate more man 30 health cell hence it can be estimated that, about 450 works may be employed during construction phase ration between local and non-local workers slip be observed to ensure equity and fair distribution employment opportunities between contractor local residents in terms of benefits.	enters orkers . The hould on of r and	unskille priority opport • Consid	people (skilled and ed) should be given in employment unity eration of gender in employment	
		The project activities will induce commenvironment for small scale businesses apart creating employment opportunities, the communities will benefit from these businesses promote money circulation in the surrouncommunity. Businesses like selling construmaterials (like cement, sand, gravel, iron bars, and petty traders can sell products such as bowater, food and soft drinks to construction wowill increase their income and contribute to grow of local economy. The circulation of money growth of local economy in the community improve people's income and their living standard.	from local s and nding action , etc.) ottled orkers rowth y will	 Involve supply materia Create common small opport 	ces in the project le local suppliers for of construction als awareness to unity members on business	-MOH -Contractor
	Impacts	Description and root causes		Mitigatio	<u> </u>	Actors
	Negative Imp	<u> </u>	Se	everity		7,000
ı	Increase of we	aste generation	m	edium		
		During field observation it was noted that there proper solid waste management system in where the health facilities are located. The compractice is burning of wastes and burying int soil. There are no proper dump sites identification most of the villages or Shehia where the prophealth centers for this project are located. Doconstruction phase there will be a significant and of waste from construction works that will generated. These wastes will increase burden on waste management system. A proper management system and waste disposal should identified for disposal of construction wastes ESMF therefore, recommends all health centers do not have incinerators to transport their haza	areas mmon to the field in posed During mount till be a solid waste ald be a This which	be proRecyclin ordewastesEnsureconstru	dous waste should perly incinerated e and reuse wastes er to minimize to be disposed efficient use of uction materials to unnecessary waste	-MOH -Contractor

No.	Impacts	Description and root causes	Mitigation	Actors
		wastes for incineration at District Hospitals and the rest of wastes be disposed in identified local dumpsite. In addition to the above, rehabilitation works in some areas is expected to involve demolition of old buildings (PHCU & PHCU+). There will be increase of wastes from demolition of old buildings during construction phase. These wastes will be collected, transported and disposed to the designated landfills or dumpsites in the respective Town, Municipal or City. Sound environmental practices in transport and disposal of the wastes should be applied in accordance with the WB EHS Guidelines specific for waste management (https://www.ifc.org/wps/wcm/connect/456bbb17-b961-45b3-b0a7-c1bd1c7163e0/1-6%2BWaste%2BManagement.pdf?MOD=AJPERES& CVID=nPtgwEW)	 Ensure efficient waste collection and transportation system Dispose wastes in designated landfill or dumpsite. 	
	Air pollution	Air pollution during implementation phase will result from activities associated with rehabilitation works (delivery of construction materials like sand, gravel, cement, etc.), excavation works, clearing of site, etc. This will definitely affect mainly construction workers and surrounding community/people living adjacent to the proposed health center. This impact will be short term and will last after construction phase. Some of the health facilities are in very poor condition, local stakeholder recommended demolition and construction of new health centers. If this proposal works out well some of the health centers will be demolished. The demolition activities will be associated with generation of dusts and will contribute significantly in air pollution in the local environment. Air pollution resulting from such demolition activities will affect the surrounding communities. Prolonged exposure to dust and other sources of air pollution may result into health effects particularly respiratory diseases.	Use water howitzers to dampen construction area Cover construction materials (sand, gravel, cement, etc.) on transit and on site Developer to adhere to national standards on air quality Use of masks	-MOH -Contractor
III	Noise pollutio	on m	edium	

No.	Impacts	Description and root causes	Mitigation	Actors
IV	Health and sa		those working in or close to the project site Adhere to the time and schedule of construction Confine activities to core construction area Use equipment/machines with low noise	-MOH -Contractor
		The proposed project will involve construction and rehabilitation works. Construction activities are usually associated with injuries, accidents, hazard and risks. Workplace condition/environment is among the most important aspect in addressin health and safety issues in construction sites. During construction, hazards may be associated with poor safety knowledge, lack of training, poor handling of equipment, prolonged working hours along wit extreme concentration, excessive noise, head temperature, etc. Other risks are likely to be physically e.g. falling, small cuts and minor chemicals spurtifire, etc. Also, accidents and injuries are likely to happen due to poor identification of key risks improper handling of machinery, lack of warningsigns to workers, slippery floor due to spills, etc. It addition to that, construction phase may be preceded by demolition of old buildings in some health center particularly in areas where new health center will be recommended for construction. In this case healt and safety risks associated with demolition, wast management, hauling of rabbles may include sit accidents, road accidents, injuries at site, oil spills, fir and explosion risks at site, chemical hazards and risk associated with chemical storage at site, etc. Therefore, this ESMF recommends compliance with WBG EHS Guidelines on Community Health and Safety and Occupational health and safety (OHS issues associated with demolition, construction activities and hauling of construction material and wastes.	 Ensure the health and safety personnel in place Ensure that workers use relevant PPE (such as helmets, boots, clothing, masks) all the time Establish first aid station, staffed and equipped to provide first aid services in case of accidents and injuries Warning signs and posters should be placed in all risky areas To ensure firefighting equipment are located in all site areas that are susceptible to fire outbreak and be regularly serviced Avoid un-authorized people at site Ensure compliance with WBG-CHS guidelines Ensure compliance with WBG-OHS guidelines Provide trainings on relevant health and safety measures to workers regularly Site vehicles shall be permitted only within the demarcated construction sites 	-MOH -Contractor
٧	Usruption of	physical environmental	Medium	

No.	Impacts	Description and root causes	Mitigation	Actors
		The excavation works and removal of vegetation like trees and grassland to allow construction will alter the physical environment of the area and soil structure will change. The vegetation supports a range of fauna and flora that reside in the area. Most of the sites will do not have dense vegetation but during construction works the landscape of the area will significantly change due to compaction, vibration, resurfacing and re-leveling. However, further and detailed assessment on the disruption of physical environment will be identified during site specific ESIA in the later stages of the project.	 Maintain natural landscape of the area after construction Avoid soil erosion after excavations Minimize the removal of vegetation cover especially trees unless necessary 	-MOH -Contractor
VI	Disturbance t	o Health services m	edium	
		During construction of Health Centers (PHCU & PHCU+) buildings some of the health services may be moved into other buildings or relocated temporarily. Health services and workers will be disturbed with all the processes of shifting such as packing files and unpacking them, commute time and may cause misplacing of equipment, drugs, files and may cause delays in health provision affecting the patient.	Provide information on temporary relocation of health services Select supervisor for relocation logistics	-MOH -Contractor
VII	Increase of HI		edium	
		During construction phase construction workers from different areas (regions or districts) and background will reside into the community where the proposed health facility will be rehabilitated or constructed. The influx of people in the project areas may including petty traders, food suppliers, material suppliers and others. All these will increase interaction between people in the project area with the local community. Such an environment and interactions will increase the rate of spread of infectious diseases such as COVID, sexually Transmitted Infections (STI) and HIV/AIDs. Zanzibar is also among the well-known tourist destination in the world that attracts a number of tourists. Taking into account tourist activities the risk and impact of increased spread of HIV, STI and other diseases will be high. This ESMF recommends strong measures to avoid such risks and highly support Introduction of HIV Clinics, Care and Treatment Centre (CTC), Provider Initiated Testing and Counseling (PITC), etc. These services can be	 Ensure compliance with WBG Guidelines on CHS Provide training to workers on health and safety measures regularly Encourage use of condoms as protective gears to avoid infection of diseases such as HIV/AIDs and other STD's Prevent spread of Covid-19 by social distancing, use of masks, use of hand sanitizers, temperature screening at entry points and restriction of unauthorized people into construction site Provide Voluntary Counseling and Testing 	-MOH -Contractor

No.	Impacts	Description and root causes		Mitigation	Actors
		introduced in many areas to reach substamount of population particularly in the proportion project areas. The ESMF further recommendates on Commendates with WBG Guidelines on Commendates	cosed mends nunity Safety 4a- land COVID ead of these s, use	(VCT) Centers for HIV/AIDS at the site Provide health and hygiene education to workers to raise awareness by using various media like posters, brochures, flyers, films, books and seminars Encourage regular health check-up for workers to allow early treatment of diseases	
VIII	Increase of ge	ender-based violence and sexual abuse	me	edium	
	Insurance of the	(https://www.ifc.org/wps/wcm/connect/eeb82b e9a8-4ad1-9472- f1c766eb67c8/3%2BCommunity%2BHealth%2B %2BSafety.pdf?MOD=AJPERES&CVID=nPtgxTd and WBG Guidelines on waste manage (https://www.ifc.org/wps/wcm/connect/456bbb b961-45b3-b0a7-c1bd1c7163e0/1- 6%2BWaste%2BManagement.pdf?MOD=AJPER CVID=nPtgwEW)	s will on of and ult in that and nends nunity with on of sposal 4a- sement 17- sement 17- sex will and sex will be	 Local construction workers are highly encouraged from local communities Raise awareness on the risks of getting diseases like STDs, HIV, AIDS, COVID by involving in sexual abuse activities such as forced sex, etc. Training to workers and local community to raise awareness on sexual abuse and gender-based violence and related consequences to the victim and victimizer Ensure compliance with WBG-OHS guidelines Ensure compliance with WBG-CHS guidelines 	-MOH -Contractor
IX	increased res	ources use such as water resource	me	еишт	

No.	Impacts	Description and root causes	Mitigation	Actors
		The proposed rehabilitation and extension of PHCU will involve construction activities that will use local resources such as water and other construction materials. Areas where there is scarcity of water may become worse due to increased pressure on water resources for construction activities and labor force in the site.	 Ensure availability of alternative water source for construction activities Ensure efficient use of resources particularly water on water scarce areas. 	-MOH -Contractor

5.1.2 Potential impacts during operation Phase in the IPW4ED

Table 7: Potential impacts during operation phase of IPW4ED Project

No.	Impacts	Description and root causes		Mitigatio	n	Actors
	Positive imp	acts	se	verity		
I.	Increase of e	mployment opportunity		high		
		After rehabilitation and extension of health center health services will be improved and number patients may increase due to assured efficient as reliable services. Therefore, a number of new stawill be required to run and operate improved heat centers during operation phase. A number of heat staff will be required for employment such (Doctors, nurses, dentists, etc.) will be permanent employed to work in improved health centers allowith services will be associated with increased new for additional health staff which will definit promote employment opportunities. This ESI estimates more than 100 new staff will permanently employed in Zanzibar during operation phase of the IPW4ED.		 Consider in emptoy Complete emptoy e.g. Chais proh Provide emptoy dependent nature 	-MOH -Contractor	
11	Increased PH	ICU+ upgraded from PHCU		high		
		The IPW4ED have proposed to upgrade about PHCU to PHCU+ which provide will imposervices with additional services like dental, del laboratory, mother and child care, etc. which are provided in PHCU. The PHCU+ provide services compare to PHCU only. Currently, the more PHCU than PHCU+ which creates necess for some patients to be taken to District hos	roved ivery, re not more re are ssities	 Ensure the PHCU+ buildings are clean and safety measures are in place Maintenance to the building to prevent deterioration Install ICT facilities for modern health services 		-MOH -Contractor

No.	Impacts	Description and root causes	N	/litigatio	n	Actors
		for services that would have been taken care at the PHCU+. The upgrading of these health centers wi strengthen health services in the entire Island of Zanzibar and will be strategically distributed to ensure proportionate services provision acrost Zanzibar.	f o s	upgrade PHCU+	adequate staff for ed health services at	
III	Reduced dist	<u> </u>	med	ium		
		Provision of Health services is still a challenge in other parts of Zanzibar, where some people will travel more than 5km to access improved health services at District and regional Hospitals. For example, people from Kangaani Health center (PHCU) normally travel for delivery services to Regional Hospital and they spent about a hundred thousand Tanzanian shillings (100,000/=) at transport costs which is on the high side to the local people. Other local communities are also forced to travel long distances in search of health services at District Hospitals or at PHCU+. Increased PHCU-centers will promote improved health services provision and hence reduce long distances which local communities travel to access health services. This will serve costs, life and ensure efficiency services close to people/communities by reducing distances in accessing health services.	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	PHCU+ local co Ensure in PHCU Doctors accordin fully un PHCU+ Provide which commu services Provide Digital h	to support more on mmunities adequate healthy staff J+, More staff especially should be employed and to allow tilization of improved adequate Ambulances will assist local nities to reach health fast at emergences ICT facilities to enhance health services PHCU+ Staff online ervices	-MOH -Contractor
IV	Improved wo	rkplace environment	hig	gh		
		The rehabilitated and extended Health center (PHCU & PHCU+) buildings will be modern with many facilities such as ICT services, fire system Hand wash facilities, adequate sanitary facilities good lighting, water supply services, etc. The infrastructure and the conditions of the modern PHCU buildings will provide good working place environment to health staff as well as other user including the out patients. The improved workplace environment will help to motivate health staff increase their performance, and protection from well maintained health and safety mechanisms/measures.	• • • • • • • • • • • • • • • • • • • •	on safe Regula health Sustain mechai	r training to health staff ety measures r maintenance of PHCU Centers Health and safety hism at health facilities	-MOH -Contractor
V	Increased eff			lium		
		The operation of improved modern health center (PHCU+) with modern facilities, increased staff adequate and efficient modern facilities, Digital			e training to local unity to raise awareness roved health services	-MOH -Contractor

No.	Impacts	Description and root causes Mitigation		n	Actors	
		health services enhanced by ICT services increased offices/rooms for health services increase efficient to health services. This will a more local communities to attend for reliable h services.	will allow	staff or	e education to health n application of modern facilities	
VI	Reduced mor	tality rates n		edium		
		The Maternal mortality is still a problem in Zan as there are 307 deaths per 100,000 live be (MOH Health Bulletin 2019). The properehabilitation and extension of health service contribute to improvement of life expectancy reduce maternal mortality. It is expected that rehabilitation and extension new staff will employed to increase capacity to handle improve health service provision. This contribute in reducing Maternal Mortality rate	oirths osed s will and after I be and will	Health Ensure health Employ special	proper maintenance of centers proper maintenance of facilities and equipment health staff with expertise for specific unity health challenges	-MOH -Contractor
VII	Growth of lo	cal economy n		edium		
		In addition to employment opportunities, the operation of health centers will also create small business opportunities to local communities close to health centers are provided such as food and drinks. An increased market will create circulation of money in the community which will promote economic growth in the long run benefiting the local economy.		 Encourage local businesses to promote local economy Raise awareness of different small business opportunities available to local people 		-MOH -Contractor
	Impacts	pacts Description and root causes		Mitigation		Actors
	Negative Imp			everity		
I	Increase of H	lealth care waste generation	m	edium		
		Significant amount of Health care waste will generated during operation phase. Such we pose potential risks if not well handled with care wastes will be incinerated and/or collectransported and disposed to the design Authorities dealing with hazardous wastes disposal. Sound waste management practices applied in accordance with the WB Guidelines specific for waste manage (https://www.ifc.org/wps/wcm/connect/456bbb961-45b3-b0a7-c1bd1c7163e0/1-	astes re. cted, nated and ctices EHS ment	 hazard Ensure supplie unnece Comply Guideli Comply 	proper incineration of ous wastes efficient use of es/materials to avoid essary waste y with WB and National ne for EHS y with MOH infection tion Control guideline	-MOH -Contractor

No.	Impacts	Description and root causes Mitigation		Actors		
		6%2BWaste%2BManagement.pdf?MOD=AJPE	RES			
		&CVID=nPtgwEW)				
II	Air pollution	from burning of wastes	m	edium		
		Field assessment conducted in January revealed most health centers have burning pidurning health care wastes. However, the buprocess is neither controlled (specific levitemperature) nor enclosed hence release pollutants into the air. In addition to this, assessment noted inadequate incineration or results in the release of pollutants into the air generation of ash residue. Incinerated mat containing or treated with chlorine can generate dioxins and furans, which are human carcinorand have been associated with a range of adhealth effects. The team noted that, open but and inadequate incineration without pupollution control expose waste manage workers and the surrounding community to to contaminants and ash. This ESMF recommapplication efficient and modern incinerators in proposed construction or rehabilitation of his centers. According to WHO modern incinerators are gas-cleaning equipment are able to comply the international emission standards for dioxin furans. Compliance with emission standards do operation phase is highly recommended in project as well.	2022 ts for rning el of s air field which r and terials terial	Hazard inciner specific high ed care w. Health have in PHCU transpowaste inciner Develo national quality Use of	centers which do not national content of the conten	-MOH -Contractor
Ш	Health and s			edium		
		During operation phase, risks and hazards massociated with health care wastes, poor wo practices, fire sources inadequate level of sknowledge to workers, inadequate supply of sgears, Shortage of HS guidelines, type of mathandled (e.g. sanitizers) and prolonged wo hours along with excessive concentration leading fatigue. The operation of health centers should comply the Occupational health and safety (guidelines during operation phase particular	orking safety safety serials orking ng to / with	 Ensure OHS gi Ensure CHS gi Provide health against regular Preven 	ar -OHS guidelines compliance with WBG- uidelines compliance with WBG- uidelines e training to workers on and safety measures t COVID, HIV and STDs	-MOH -Contractor

No.	Impacts	Description and root causes	Mitigation	Actors
		management of health care waste to avoid risks of	social distancing, use of masks,	
		infectious diseases from waste. Fire risks in health	use of hand sanitizers,	
		facilities buildings should also be carefully	temperature screening at	
		managed. This ESMF recommends compliance with	entry points	
		WBG Guidelines on Occupational health and safety	• Provide health and hygiene	
		(OHS)	education to workers to raise	
		(https://www.ifc.org/wps/wcm/connect/1d19c1ab-	awareness by using various	
		3ef8-42d4-bd6b-	media like posters, brochures,	
		cb79648af3fe/2%2BOccupational%2BHealth%2Ban	flyers, films, books and	
		d%2BSafety.pdf?MOD=AJPERES&CVID=nPtgxyx)	seminars	

Detailed assessment of environmental and social risks and impacts for each subprojects ESIA, ESMPs will be conducted before subprojects implementation.

6.0 PROCEDURES FOR ADDRESSING ENVIRONMENT AND SOCIAL ISSUES

The section provides procedures for environmental and social screening of subprojects and the appropriate environmental and social assessment required and implementation procedures and measures. The procedures for addressing environmental and social safeguards are also linked with responsible institutions and government authorities to ensure compliance throughout subprojects' life cycles and will apply to all subprojects financed under the IPW4ED Project.

6.1 ESMF PROCEDURES

The procedures on how environmental and social management will be addressed in the project "Investing in peoples' well-being for economic development (IPW4ED)" are provided in this ESMF. These are elaborated in the following sub-sections.

6.1.1 Environmental and Social Screening

The screening process aims to establish initial status of the potential environmental and social adverse impacts of the proposed project activities. It's an initial stage of subprojects assessment for identification of whether further assessment will be needed depending on screening results. The process will identify the sensitivity of the site where the sub-project is located, the scale of civil works to be carried out and risk level of the subproject and incorporate mitigation measures into project design, review and approval of subprojects. For IPW4ED project, this will apply to proposed rehabilitation and extension of Primary Health Care Unit (PHCU and PHCU+). Environmental and Social screening is a process that helps to project whether the future project activities are likely to have potential adverse impacts on bio-physical and social environment and determine the level of safeguards assessment required.

The screening process will be undertaken by using a special Environmental and Social Screening Form (Annex III) that will be filled by environmental and social safeguard specialist from project implementing unit in consultation with ZEMA, or assisted by a recognized Environmental Consultant and approved by the World Bank. This exercise will involve identifying the potential environmental and social impacts and potential environmental and social mitigation measures. The screening process will finally identify if a particular subproject will require a detailed environmental and social impacts assessment study or not. The subproject activities that will be screened will include but not limited to, level and type of building to be constructed/rehabilitated/extended and associated infrastructures like water systems, energy, accessibility, waste management and sanitation facilities etc. Other aspects to be screened include nearby land uses, civil works to be carried out, types of machinery and equipment to be used, etc.

6.1.2 Environmental and Social documentation or preparation of ESIA and ESMP

Environmental and Social Impact Assessment (ESIA) as well as ESMP shall be prepared based on the requirements of Zanzibar Environmental Management Act No 3 of 2015; EIA (Procedures) Regulations of 2002; and the World Bank ESS1. These instruments shall be used in assessment in order to identify and address all potential direct, indirect, induced and cumulative impacts of subprojects and provide proper mitigations and enhancement measures. Feedback from the consultations processes, shall be taken into account in the ESIA and reflected in the sub-projects' designs. They shall be submitted to the World Bank and finally to Zanzibar Environmental Management Authority (ZEMA) for review and approval and for obtaining certification as appropriate. The Project Coordination Unit (PCU) of the MOH of Zanzibar should provide the Design Consultants with the ESIAs and ESMPs so that the environmental and social mitigation measures identified are included in the design and budgeted. In case the implementation will involve other institutions apart from the implementing institution then other institutions should also be mentioned and their specific roles for implementing the mitigation measure and implementation costs. Furthermore, the contractors who will be involved in IPW4ED Project particularly rehabilitation and extension of Health Centers (PHCU and PHCU+) are required to comply with the code of conduct for contractors (Annex IV) specific on Environmental and Social issues as indicated in Annex IV in this ESMF. In addition to that, the requirements for public consultation and disclosure are clearly defined in chapter 8 of this ESMF and should be complied.

6.1.3 Review and approval of safeguards documents

The review of Environmental and Social Impact Assessment (ESIA) along with ESMP shall be done by Safeguards specialist at Project Coordination Unit (PCU) in the MOH of Zanzibar. The review will also be done by ZEMA and the World Bank by adhering to the review criteria based on EIA (procedures) Regulations of 2002 and the World Bank Environmental and Social Standards (ESS). After review and recommendations on the ESIA addressed and approval of safeguards documents, the Zanzibar Environmental Management Authority shall approve and issue ESIA Certificates of sub-projects. The review and approval at World Bank will be done by Environmental and Social Safeguards Specialists in the country office in collaboration with the Regional Safeguard Advisor (RSA).

6.1.4 Implementation, monitoring and supervision

The monitoring aims at assessing the effectiveness of the mitigation measures applied for specific impacts during implementation by observing the response of the indicator of the impact and inform implementing unit on the status of the impacts after mitigation applied. It also meant to make evaluations in order to determine whether the mitigation measures applied have been

successful or not restoring environmental and social condition. Environmental and social monitoring activities should be based on parameter to be measured/ direct or indirect indicators such as emissions, noise, effluents, resource use applicable to the particular subproject as well as indicators of social impacts of the project.

Monitoring activities shall also indicate methods to be used in measuring a specific parameter, sampling locations and frequency. Monitoring frequency should be sufficient to provide representative data for the parameter being monitored. The monitoring should be conducted by trained individuals, keep record and use properly calibrated and maintained equipment. The monitored data should be analyzed and reviewed at regular intervals and compared with the operating standards based on Tanzanian Standards/WB standards. The ESMP should also provide specific period set for monitoring purposes because some of the impacts are short term and others are long terms. Therefore, it will reach a time when monitoring of short-term impacts will cease while the long term one will continue. The ESMP should also be cost effective to avoid unnecessary costs. The monitoring and reporting should also include compliance level on OHS, records of accident, preventive and corrective measures, emergence of GBV incidents and responses. The IPW4ED project shall have proper records of environmental and social incident Reponses that will be monitored for effectiveness and continual refinement and further improvements.

6.2 ENVIRONMENTAL & SOCIAL MANAGEMENT ISSUES

6.2.1 Procurement of Contractors

The IPW4ED Project will ensure that all relevant resources (human and financial) for implementing ESMP are adequate budgeted and readily available before the beginning of subprojects implementation process. The Project Implementation Team will have to work with Procurement Unit to ensure that environment and social issues are well addressed and incorporated in the budget and contracts. Contractors must well be informed of their environmental and social obligations and demonstrate a good understanding of the costs involved and the resources needed for implementing the environmental and social safeguard tools including health and safety management plan as well as other mandatory environmental and social management sub plans and policies.

Contractors' contracts shall also include the requirements for the Contractor to develop Construction Environmental and Social Management Plans (CESMPs) to be used during construction in addressing all the issues identified in the ESIA and ESMP together with any other key issue that will be identified during site meetings, inspections and mobilization for construction

works. Construction materials such as gravel and sand must be extracted or purchased from the approved quarry sites and sand pits and registered suppliers only. Some of the construction wastes such as concrete, bricks, and excavation waste and chemicals, might require appropriate environmental disposal. The identification of suitable sites for waste disposal, site environmental management (compacting, re-soiling and re-vegetation, drainage control), and the associated transportation costs will be included in cost estimates during project design.

6.2.2 Permits and Notifications

The necessary permits and certificates should be obtained prior to commencement of construction works (rehabilitation and extension) in the IPW4ED Project. The implementation of the subprojects shall be carried out in accordance with Zanzibar laws and World Bank guidelines and Safeguard Standards. The equipment and machinery to be used shall have all necessary certification/registration and fully compliant with specific requirements for subproject size and purpose. The developer (MOH) will seek and obtain the necessary permits from relevant authorities and undertake notifications as per environmental management regulations and the General EHS Guideline, 2007 (World Bank). The Project Management Team will ensure that all relevant project approvals including ESIA Certificate, building permits, OSHA certificate, and other mandatory permits and certifications are in place before commencing the construction works.

6.2.3 Environment and Social Management Controls by Sub-Project Contractor

The Contractor shall ensure mitigation measures planned for implementation during mobilization and construction are attended according to ESMP. Based on ESMPs, Contractors are required to develop Constructor's Environmental and Social Management Plans (CESMPs) for all environmental and social issues relevant to activities under the contract. The purpose of the CESMP is to guide how the contractor will manage environmental and social issues in order to minimize or mitigate the identified adverse impacts on the environment and surrounding communities during construction works. CESMP is a living document which should be reviewed and updated from time to time throughout the project life cycle to accommodate new impacts, measures and sub-plans. The CESMP should be approved by the Supervision Engineer/Consultant/Developer (MOH). The Contractor shall monitor environmental and social issues in implementation based on the monitoring frequency of a particular impact and report to the Client. The CESMP should include but not limited to:

- i. Introduction –
- ii. Key project information
- iii. General purpose
- iv. Structure of the document.

- v. Scope of work
- vi. Sub-project description and designs
 - a. Location and accessibility
 - b. Construction activities
 - c. Materials source and quantities
 - d. construction water sources and usage,
 - e. Equipment and machinery
 - f. Physical, biological and social environments,
 - g. Main sub-project's components (contractors camp if would be any, quarry sites and sand pits, Concrete batching/mixing plant, (for quarry site and sand pits areas), agreements with owners or legal users of property,
- vii. Project's Potential Impacts (mobilization, construction and demobilization phases)
- viii. Impacts Mitigation and enhancement Plans (environmental requirements and controls)
 - Emergence Contacts and Response
 - Training and Induction programs (for workers)
 - Awareness Training programs (local communities)
 - Subcontractor Management
 - o Pollution control measures,
 - o Environmental risk register, incidents/accidents register
 - Consents and permissions
- ix. Specific Management plans (Mandatory Safeguards Sub-plans)

These sub-plans shall be prepared and form part of Contractor's Environmental and Social Management Plan (C-ESMP) in each subproject's site.

- o HSMP- Health and Safety Management Plan
- o ESMP-Environmental and Social Management Plan
- EAP-Emergency Action Plan
- Emergency Preparedness Plan (EPP).
- Waste Management Plan (WMP)
- Occupational Health and Safety Plan (OHSP)
- Community Health and Safety Plan (CHSP)
- Stakeholders engagement for general stakeholders
- Sand Pits and Quarry Sites Operation and Reinstatement Plan (SPQSORP)
- Traffic Management Plan (for subprojects located along the roads))
- o Grievance Redress Mechanism (GRM for workers and local communities)
- GBV and Sexual Harassment Action Plans
- Child Abuse Protection Plan (CAPP)
- Code of Ethical Conduct (CEC)
- HIV/AIDS and STIs Management Plan

- Chance Find Procedure
- x. Management Policies
 - HIV/AIDS Policy
 - Labor and Employment Policy
 - Child Labor Prevention Policy
 - Workers' Ethical Codes of Conduct
 - EHS Policy
- xi. The Contractor shall prepare a Chance Find Procedure to be followed if tangible cultural heritage is encountered during civil works.

6.2.4 Occupational Health and Safety and Environmental and Social Sensitization

Sensitization on environmental and social issues as well as occupational health and safety is crucial to the local communities and contractor's employees. Therefore, the Contractor shall conduct awareness training and sensitization programme to the employees and surrounding local communities on prescribed time frame. There should be different training programs for the subproject employees and for the communities. To subproject workers, the trainings should aim at orienting new employees to working environment; updating the safety awareness and technical skills of workers in the field and prepare them to select appropriate safety measures to contain any unforeseen hazards/emergency situations. The Contractor also should facilitate the provision of mandatory OHS trainings by OSHA. As per the requirements of the Zanzibar Occupational Safety and Health Act No. 8 of 2005, employers are required to select individuals (First Aiders and HSE Representatives) among the workers who should attend mandatory training programs offered by OSHA for the safety, health and welfare of persons at work places. Training programs to the local communities should include issues of HIV/AIDS and STIs, community health and safety, child labor, sexual harassment and GBV, grievance redress mechanism (GRM) and environmental conservations.

In addition to training programs, the project coordination unit supported by Supervision Consultant shall ensure that, the Contractor provides, equip and maintain adequate personal protective equipment (PPEs), first-aid station and first-aid boxes (and OSHA trained First-Aiders) and sign boards directing where these services are situated. Also, they shall make sure that, there's an ambulance or a standby vehicle at the construction site for transporting the casualty in case of emergency. Appropriate protective gear including, but not limited to helmets, heavy duty gloves, overalls, safety vests and safety boots, masks, safety glasses (welders) shall be provided to site workers and also should be made available for official visitors. The site should be provided with adequate, good and clean WASH facilities and maintain a good housekeeping of the site. Measures to prevent spreading of COVID 19 should be in place at every site and abided as per guidelines of MOH.

6.2.5 Environmental and Social Supervision during Construction

The Supervision engineer/consultant will oversee the construction activities and ensure compliance with the Environmental and Social Management Plans. Where non-compliances are observed, the Supervision engineer/consultant will work with the Contractor to rectify the situation in coordination with the PCU. In case of a critical non-compliance e.g. when there is harm to individuals, communities and or the environment, construction works shall be stopped and the information will be immediately shared with the PCU.

6.2.6 Subproject Review and Audit

During subproject's implementation phase, the ESMPs will be subject to annual reviews and audits. These reviews shall be undertaken by external independent reviewers or auditors or independent Local Consultant or NGO as commissioned by PCU. They will review the implementation of environmental and social management of the sub-project in order to improve the implementation and compliance of ESMPs and guarantee timely and quality delivery of sub-project activities. The Annual review reports shall be submitted to ZEMA for approval and records. In case the audit has found a non-compliance to one of the ESMPs adequate measures will be taken as per the contract agreement.

6.2.7 Grievances Redress Mechanism and Procedures

A Grievance Redress Mechanism (GRM) is an important tool for addressing different project related grievances during implementation phase. GRM involves a formal process for receiving, evaluating and redressing sub-project's related grievances from affected individuals and communities. They aim at solving disputes at the earliest possible time, which is fundamental to achieving transparency and voicing people's concerns about overall project activities. The PCU shall enforce development of grievance redress systems for receiving and resolving all complaints related to construction activities at a particular sub-project's site during implementation. To ensure effectiveness and efficiency, GRM will stipulate procedures for handling grievance that will be simple and administered through and administered by the Village Council or Shehia/Mtaa/ward government office committee. This committee shall include Human Resource Officer, Environmental officer and Community Liaison Officer - Sociologist from the sub-project's contractor side. It will also include the local government leaders of the respective Village/Shehia/Mtaa/ward and the Representative of the Project Coordination Unit. All reported including investigations and minutes of discussions, resolutions grievances, recommendations shall be recorded in the grievance log book.

The stakeholder engagement process will ensure that the surrounding communities are well informed of the existence of GRM and its procedures through sensitization programs and posters, placed at different location easily to be accessible and to be seen by the local communities such as the main gate of the construction site, village/Shehia/Mtaa/ward offices' notice boards, offices, at common public places at the village/Shehia such as schools, health centers, market, etc. Other communication channels such as a toll-free hotline number, email address, face to face communication, or a special grievance reporting form also will be available at those areas. For workers hired by contractors, the contractors will be required to produce their GRM procedure as a requirement for tender which at a minimum conform to these obligations. The GRM procedures should be transparent where by the Contractor shall be required to give evidence that all employee have received GRM awareness training.

6.2.8 Gender Based Violence (GBV) and Sexual Exploitation and Abuse Grievances

The IPW4ED Project shall identify potential specific risks for women and children during the implementation of subprojects in various regions in Zanzibar. Experience from other projects shows that, construction projects tend to attract influx of labor force from outside the project area as a result the risks of Gender Based Violence (GBV) and sexual exploitation and abuse (SEA) to the workers and local communities can be increased. In this regard, this ESMF recommends the need to develop a specific GRM for addressing GBV and SEA grievances.

Workers from contract may engage in sexual fraternization and transactional sex in particular with younger women and girls. This can support the spread of Sexually Transmitted Diseases (STDs) including HIV/AIDS. In addition, it can lead to domestic conflicts, GBV and domestic violence at a household level. GBV at the household level can also have an impact on children both physically and emotionally. Women who seek employment may also face sexual harassment including demands for sexual favors before being employed. When employed, women may face continuous and/ or unwanted demands for sex under threat of being dismissed or missing out on other benefits or opportunities such as overtime. In addition, female workers may also be sexually assaulted by their male colleagues. Women and girls in the community and places of work may also face the risk of being subjected to verbal harassment in the form of insults and demeaning comments in addition to unwanted gestures and touches by construction workers. There is a potential risk of project workers engaging in illegal sexual relations with minors, leading to STDs, HIV infection, teenage pregnancy, early child marriage, illegal and risky abortions, school dropout, etc.

A special GRM that is sensitive to GBV shall be developed at sub-project level and will be linked to the project and Village/Shehia/Mtaa levels. GBV service providers mapping will be done at the project's level and the subprojects will borrow from the main project. Awareness trainings will be

conducted at the Village Council/Shehia on how to manage and receive GBV related grievances. Additionally, the training will cover issues related to confidentiality, empathy, types of non-identifiable data shall be collected, and information on how to close the case. Although the training shall be provided to the members of the Shehia/village council but they shall not be involved in resolving GBV related cases as this will be determined by the survivor with support from the appropriate service providers based on their needs and wishes. A GBV referral pathway will be identified in each district mapping services with the appropriate capacity and quality of service delivery.

where a IPW4ED Project worker is involved, the contractor and PCU will be advised about the case and the GBV Specialist will be informed and he/she will initiate investigation required by involving the contractor, PCU, service providers, etc. Altogether, will recommend the action to be taken by the contractor in ensuring that administrative measures are taken against an alleged perpetrator of sexual assault. The bidding documents for contractors will require the development of a Code of Conduct (CoC), training for workers on the contents of the CoC and, depending of the level of risk, a GBV Action Plan with a clear Response and Accountability Framework. Monitoring mechanisms shall be put into place to ensure that mitigation and response measures are in place.

Adaptation for Vulnerable Groups

The GRM shall be presented to Vulnerable Groups and necessary modifications shall be made to suit their requirements and decision-making processes while maintaining the principles underlying the mechanism and the roles and responsibilities. The aim for this adaptation is to ensure that, vulnerable groups are able to raise their concerns in a manner they feel will be listened to and which they feel is accountable to them. Such adaptations shall be discussed and agreed during the preparation of the vulnerable groups consultation and engagement plans.

6.2.9 Stakeholders Engagement

The requirement for stakeholders' consultations and engagement is provided under Zanzibar Environmental Management Act of 2015, EIA (Procedures) Regulations of 2002 and the World Bank Environmental and Social Standard 10 (ESS10). On that basis, IPW4ED Project shall ensure all relevant Stakeholders are well engaged in the process and ensure proper communication with stakeholders throughout project life cycle including the grievance redress mechanisms, and commitments to information disclosure for Environmental and Social reports. To a minimum, engaging stakeholders will involve the following aspects:

- i. Introduction (Background of the IPW4ED project and its Components)
- ii. Stakeholders Identification and analysis. This aspect shall include identification of different groups of stakeholders, define stakeholders' roles and expectations and prioritize their needs and the list/groups of identified stakeholders.

- iii. Engagement of stakeholders which defines the purpose and timing of engagement, proposed strategy for information disclosure (Proposed strategy to incorporate the view of vulnerable groups, timelines)
- iv. Resources and responsibilities for implementing stakeholder engagement activities
- v. Procedures for Grievance Management
- vi. Monitoring and Reporting of stakeholders' engagement activities.

However, the level of stakeholder engagement will depend on subprojects, location, likelihood and magnitude of impacts and risks. The IPW4ED Project shall provide all required information with focus on meaningful engagement involving dialogue and discussion.

6.2.10 Labor Issues

The delivery of the IPW4ED project is expected to utilize the Government, Private and Community Human Resources which are available at national, regional, district and community Levels (Shehia). This ESMF recognizes that provision of safe and healthy working conditions, sound worker-management relationships, fair treatment of workers, and promotion of gender equality and protection of women from Gender-Based Violence (GBV) enriches the project's benefits. During the implementation of subprojects, labor force recruitment shall be undertaken in compliance with the National Law and World Bank ESS2 and World Bank Group Environment, Health and Safety Guidelines of 2007 (EHSGs, 2007)).

7.0 PROJECT IMPLEMENTATION ARRANGEMENTS, RESPONSIBILITIES, CAPACITY BUILDING, TRAINING AND TECHNICAL ASSISTANCE

This section defines the way implementation arrangement of the project is set up within the Ministry of Health (MOH). It defines key actors and their responsibilities in the project and the level of capacity required for efficient implementation of the project. In case of inadequate capacity this section defines which capacity building needs should be addressed and important trainings required to strengthen their understanding and implementation capacity. This is always associated with technical assistance which will be provided either in full time or short term by consultants.

7.1 IMPLEMENTATION ARRANGEMENT FOR ENVIRONMENTAL AND SOCIAL ISSUES

The implementation arrangement of the environmental and social safeguards in the Ministry of Health (MOH) for this projects should be well integrated into the overall project implementation arrangements.

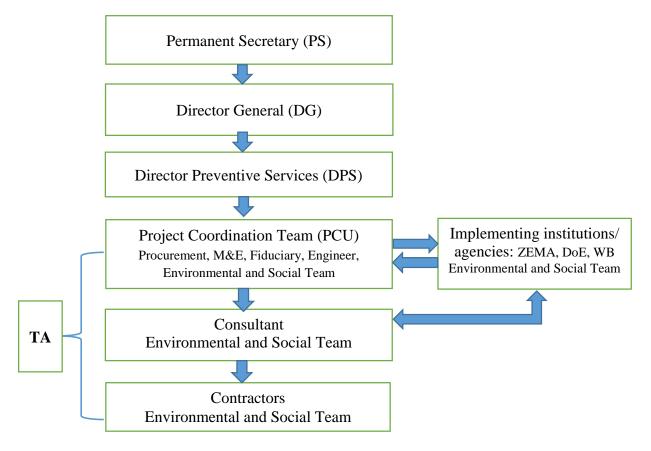


Figure 2: Implementation Arrangement for IPW4EDfor Environmental and Social Management

The Permanent Secretary (PS) is responsible for overall activities of the MOHCDGEC. He/She is the overseer of the day to day activities of the whole ministry assisted by the Director General and other Directors like the Director of Human Resource (DHR), Director of Preventive Services (DPS), Director Policy and Planning Research (DPPR) and Director of Curative Services (DCS). They are all responsible for day to day activities of the Ministry and the Director General reports to the PS.

The Environmental and Social Safeguard Team placed in the PCU will report all safeguard proceedings to the Director of Preventive services (DPS) who will also report to the Director General (DG). The safeguard team will be responsible in managing all safeguard issues from preparation of safeguard documents, review and approval processes. After approval of safeguard documents, the safeguard team will follow up its implementation during project implementation at the subprojects level.

The implementation of environmental and social issues in the project requires an environmental and social Team at PCU with adequate experience that will be responsible for environmental and social management, monitoring and surveillance of all sub projects that will be undertaken during IPWE4D Project implementation and will report to the World Bank. The environment and social Team at PCU should be able to coordinate different activities to ensure that the subprojects meet the national and World Bank environmental and social safeguard requirements in accordance with the Environment and Social Management Framework. The subprojects will be subjected to environmental and social screening during the planning stage and appropriate measures will be taken based on the results of the environmental and social screening process. The implementation arrangement for Environmental and Social Management will follow arrangements as shown in Figure2 above. The safeguards Team at PCU will be the core and driving wheel of all safeguard matters in the project. The Team will be responsible to report all interventions and way forward to higher levels and provide regular updates of safeguard interventions and its implementation status.

The Environmental and Social Team at PCU will provide professional advice in all matters related to environmental and social safeguard management to the top management and requirements for compliance with National and WB. The team will also work in collaboration with other environmental institutions such as ZEMA, VPO Office-DoE to ensure compliance at various levels. The E & S Team will guide consultants in various safeguard interventions including preparation and review of ESIA, ESMPs, EHS, GRM, SEP, LMP and other environmental and social tasks as required in the implementation of the IPWE4D Project. The team will further work in close collaboration with contractors to ensure contractors deploy appropriate EHS staff who will manage all site works particularly on Environmental, health & Safety and Social Compliance. The

Environmental and Social Team will also be responsible to report and answerable to World Bank Environmental and Social Specialists in terms of the progress, implementation status, challenges and ensure compliance with World Bank safeguard requirements in accordance with the ESMF.

The Environmental and Social Team at PCU shall also coordinate specialist/consultants for any implementation support missions or attend different meetings and provide any guidance in order to ascertain different challenges identified for each sub-projects and ensure that all challenges are properly addressed. The Environmental and Social Team in collaboration with WB Environmental and Social specialist(s) shall also support the procurement officer at PCU in making sure that the bidding documents clearly cover the health, safety and environmental component with appropriate provisions of the same for the contractors in the bidding process. He/she shall coordinate preparation of ESIA and environmental and social management plans (ESMPs) done by consultant and site-specific ESMPs. He/she shall ensure that contractors have an Environmental, Health and Safety Officer (EHS) who is familiar with the compliance requirements, including WBG EHS guidelines. The specialist(s) will also review progress reports of the supervision engineer/consultant during civil works and conduct inspection of the sites.

7.2 ROLES AND RESPONSIBILITIES

7.2.1 Roles and Responsibilities of Environmental and Social Team at PCU

The roles and Responsibilities of Environmental and Social Team at PCU will be to ensure all safeguard issues in IPWE4D Project are properly addressed and implemented. They will both work together in supervision to ensure safeguards standards are implemented and complied with in the project. They will supervise, support and guide consultants, contractors, and other implementing institutions such as Ministry, Departments, Municipals, Shehia, etc. on safeguards issues. They will review project documents to ensure safeguards issues are appropriately included in the project. They will review all safeguard documents prepared before approval and provide comments for improvements. Specific roles and responsibilities of each safeguard Team member is clearly defines below in section 7.2.2 and 7.2.3.

7.2.2 Roles and Responsibilities of Environmental Safeguard Personnel at PCU

The roles and responsibilities of Environmental Safeguard Personnel will include:

- Provide overall environmental management oversight guidance and support during the implementation of IPWE4D Project, supporting and advising consultants, contractors and the Ministry in addressing a variety of environmental issues at all stages of implementation of the program;
- Review all environmental reports including ESIAs, ESMPs and Environmental Audits, etc.

- Monitor compliance to provisions of the Environmental and Social Management Framework (ESMF) of the IPWE4D Project;
- Ensuring environmental screening of subprojects and activities are properly carried out, and review specific Environmental and Social Management Plans (ESMPs) prepared by Consultants or implementing institution
- Supervise and monitor implementation of ESMPs;
- Ensure that environmental safeguard instruments (ESIAs and ESMPs) are disclosed in Zanzibar and in World Bank Info-shop;
- Provide oversight on ensuring that all subprojects and activities comply with the ESMF processes and procedures;
- Organize environmental orientation & awareness, and on the job training;
- Review subprojects and activity plans, designs, costs, and bid documents to ensure environmental issues/factors and mitigations are incorporated, and subproject/ activity documents are in harmony. Larger or sensitive subprojects shall be reviewed from the early stage (concept stage);
- Carry out site supervisions during implementation of subprojects and activities, and provide feedback to the WB;
- Prepare or Review Terms of Reference and project documents for compliance with the World Bank's environmental safeguards policies.
- Provide Briefing notes to WB on the progress made by the IPWE4D Project on environmental safeguards and associated risks
- Contribute to Bi-annual Joint Supervision Mission Aide Memoir
- Report and oral presentation to WB during Joint Supervision Mission
- Prepare Report in the format of JSM-Aide Memoir

7.2.3 Roles and Responsibilities of Social Safeguard Personnel at PCU

The roles and responsibilities of Social Safeguard Personnel will include:

- Provide oversight on land acquisition, involuntary resettlement, and other social safeguards issues and activities in projects being arranged for implementation in accordance with the Resettlement Policy Framework (RPF);
- Review terms of reference for conducting of social assessments required to inform project preparation;
- Review all project plans/ designs to ensure the needs of the target project beneficiaries are appropriately considered in the implementation of the projects;
- Assess the robustness of the consultation process required in the preparation and implementation of the resettlement action plan;
- Review draft resettlement action plans;

- Identify weakness on counterpart knowledge on social safeguard and develop appropriate training to mitigate weakness
- Review Terms of Reference and project documents for compliance with the World Bank's social safeguards standards that are applicable by the project.
- Briefing notes to WB on the progress made by the IPWE4D Project on social safeguards and associated risks
- Contribute to the Bi-annual Joint Supervision Mission Reports-Aide Memoir
- Report and oral presentation to WB during Joint Supervision Mission
- Prepare Report in the format of JSM-Aide Memoir

7.2.4 Roles and Responsibilities of ESIA Consultants

The roles and responsibilities of ESIA Consultants will include:

- The consultants shall work and will be guided by the Environmental and Social Team at Project Coordination Unit (PCU) to understand the scope of work provided, terms of Reference and requirements of the environmental and social assessment
- To conduct initial site visits with the PCU staff to understand the sub-project setting, screening process and site-specific requirements
- Undertake public consultations from different stakeholders as recommended by SEP
- Prepare the ESIAs and ESMPs based on the procedures described in the ESMF and accordance with WB Environmental and Social standards and policies and laws of the Revolutionary Government of Zanzibar
- Undertake ESIA according to EMA of 2015, the process should include alternatives analysis, baseline studies, identifying the environmental and social risks and impacts, propose mitigation measures, prepare management and monitoring plans
- Establish all costs associated with all mitigation and management measures proposed in the ESMPs
- Support PCU in all processes of ESIA in order to obtain Environmental certification or Clearance from ZEMA for the ESIAs and ESMPs as early as possible
- Prepare and conducting Environmental and Social trainings as may be required by PCU for specific community, group of stakeholders, contractor's staff, etc.

7.2.5 Roles and Responsibilities of the Contractor

The contractor is responsible to undertake all civil works as will be specified in the tendering process including rehabilitation and construction health centers after successful competition in the bidding process. The contractor will be responsible for implementation of Environmental and Social Safeguards issues in accordance with the WBG Environmental, Health and Safety Guidelines (EHS Guidelines). The contractor and his staff shall avoid or minimize the risks and impacts that

may result from the civil works and implement the mitigation measures to prevent harm and adverse impacts to the local communities, and to minimize the negative impacts to the environment. The contractor shall employ an Environmental, Health & Safety (EHS) officer and Social officer to oversee the Environmental and Social (E&S) aspects. The duties of the contractor include but not limited to:

- Perform the work in accordance with the scope of contractual requirements and other tender conditions
- Prepare Contractor Environmental and Social Management Plan (CESMP) based on the ESMP in the bidding documents and contracts
- Ensure compliance with relevant environmental and social legislative requirements (i.e. at sub project specifics, at district and national level) including allocating adequate budget for implementation of these requirements
- Train workers about EHS including relevant WBG EHS guidelines and the site specific environmental and social measures to be followed
- The EHS officer of the contractor will participate in the joint site inspections with the PCU and consultant
- Provide notification immediately to the environmental and social team at the PCU of any significant social or environmental, health & safety incident occurred at site in specific sub project.
- Indicate any emergence response of incidences and remedial measures taken to address the incident as well as any future preventive measures to avoid its recurrence
- Implement corrective actions instructed by the Environmental and Social Team/consultant
- In case of non-compliances/discrepancies, carry out investigation and submit proposals on mitigation measures and implement remedial measures to reduce environmental impact
- Submit quarterly progress reports to the Environmental and Social Team/consultant at PCU to track the progress and emerging issues during implementation of the project.

7.2.6 Roles and Responsibilities of World Bank

The World Bank as the Borrower has the responsibility to oversee and follow up the progress of implementation of the recipient government/institution. Therefore, the WB Team responsible for IPWE4D Project will be part of project implementation team whose responsibilities will involve but not limited to:

- Undertake review and approve site specific ESIAs and ESMPs
- Ensure implementation of ESMF and monitor compliance
- Discuss implementation challenges
- Undertake implementation support missions
- Review quarterly reports by the implementing agencies

 Discuss any emerging safeguard challenges and recommend actions to be taken for remedial measures.

7.2.7 Roles and Responsibilities of the ZEMA

The role of ZEMA in the proposed rehabilitation, expansion and constructions of health centers in Zanzibar in IPWE4D Project will be as a regulator as well as safeguard implementing institution. Its role is based on their legal mandate in development projects as described in the Environmental Management Act of 2015 of Zanzibar. Their roles will include:

- Receive ESIA/ESMP reports, review and provide recommendations for improvement and further guidance
- Provide Environmental Certificate/Environmental Clearance/Environmental Permit where necessary upon receiving of ESIA/ ESMP reports prepared by consultants on behalf of clients, after review and approve them
- Provide Environmental and Social awareness through trainings in Zanzibar. They can be invited as participants sometimes to allow them to share experience and can provide trainings to project implementers when required.
- Undertake spot or regular monitoring of environmental and social issues for project implementation and provide guidance according to EMA, 2015.

7.3 EXISTING CAPACITY, GAPS AND WEAKNESS IN ADDRESSING E&S ISSUES

The Revolutionary Government of Zanzibar has a clear framework for environmental management which is defined in the Environmental Policy of 2013 and Environmental Management Act of 2015. Most of the ministries, departments and local government authorities do not have the required capacity to comply with the requirements of the Environmental Policy and Environmental Management Act. This inadequate capacity is also noted in the MOH in the preparation of the IPWE4D Project where there is inadequate capacity to implement the ESMF.

Major gaps and weaknesses in addressing Environmental and social issues include;

- i. Inadequate understanding of requirements of the World Bank Environmental and Social Management Framework (ESMF),
- ii. Lack of understanding of WB Environmental and Social Standards (ESS)
- iii. Lack of understanding of the WB Guidelines for EHS
- iv. Lack of comprehensive understanding of the policy and legal framework of Environmental and social issues

- v. Inadequate understanding of procedures and guidelines of the ESIA processes which may lead to unnecessary delays of safeguards clearance,
- vi. inadequate funding set aside for safeguard issues,
- vii. inadequate monitoring capacity of Environmental and Social issues
- viii. inadequate understanding of the importance stakeholders' engagement at initial stages of subprojects planning and during implementation stage.
- ix. lack of adequate reporting skills for environmental and social issues.

For that reason, the MOH in Zanzibar which is the implementing institution needs capacity support in these aspects including to screen, review and clearance their sub-projects under IPWE4D Project. This indicate that, there is lack of sufficient capacity to manage and monitor environmental and social issues in compliance with the ESMF. This ESMF will be implemented through administrative and management structure defined in this project. However, the MOH which is implementing institution has to be strengthened in terms of resources and training for capacity building on safeguard issues.

7.4CAPACITY BUILDING, TRAINING AND TECHNICAL ASSISTANCE

7.4.1 Capacity needs for Implementing Environmental and Social Issues

The MOH will be required to strengthen the capacity to implement, manage and monitor Environmental and Social issues in the IPWE4D Project in collaboration with WB, ZEMA, OSHA and other key stakeholders. Therefore, it is advised that an Environmental Specialist and Social Specialist be appointed/recruited by the MOH which is the institution implementing the project. These Specialists may work on short term basis and will be reporting to the PCU responsible for execution of the project. The specialists will work together with the PCU and build capacity to the Environmental and Social Team of the Ministry which are placed in the PCU for implementation of effective E&S issues. The capacity building will enable improvement in the implementation, increase understanding of safeguard issues and strengthen capacity for managing, monitoring and reporting to the PCU and WB which also comply and conform with the World Bank standards and procedures. This ESMF recommends capacity building to achieve the following;

- i. Improve and impart skills to Environmental and Social Team, PCU Team and Administrators in the MOH responsible on the overall supervision of the subprojects in all regions and districts for supervision, monitoring and follow-up of environmental and social concerns.
- ii. Impart skills to contractors, service providers and communities on environmental and social risks and impacts, measures required and EHS issues in line with WB Environmental and Social Standards (ESS) and Zanzibar policies and laws.

7.4.2 Training needs for implementing institutions and project staff

Capacity development can be achieved through training or awareness programs. that will be done to the institution's PMU team. Training of Environmental and Social issues to PCU/project staff can be done in the form of short or long workshops. The training will provide project staff the knowledge to manage and monitor the environmental and social aspects in sub project level activities. The Training workshop shall take place in the initial stages of implementation of the IPWE4DProject. The training workshops can be conducted by an external consultant with substantial knowledge or long experience on Environmental and Social Safeguards and environmental management in accordance with the legal and policy requirements of Zanzibar and World Bank requirements. Other relevant staff members of the institution can be included in the training in order to increase familiarization of the E&S issues of the project. This ESMF requires that a detailed training needs assessment has to be done before the training to identify gaps of knowledge, skills and abilities to employees who will be involved in implementation of Environmental and Social issues.

7.4.3 Proposed Trainings

Key training aspects that are proposed and timeline is shown in Table 8 below, include:

- (a) Environmental and Social Impact Assessment (ESIA) process:
 - i. Baseline survey
 - ii. Impact prediction and identification
 - iii. Formulation of mitigation and enhancement measures
 - iv. How to prepare terms of reference for environmental and social impact assessment
 - v. How to integrate environmental and social issues in project design
 - vi. Reviewing and approving ESIAs and ESMPs
- vii. Development of environmental and social management plan
- viii. Public participation/stakeholder engagement in the ESIA process
 - ix. Monitoring and reporting of Environmental and Social issues in project implementation.
- (b) Environmental and Social policies, procedures and guidelines
 - i. Consideration of Zanzibar Environmental and social policies and legislation according to the nature the project
 - ii. World Bank Environmental and Social Standards (ESS)
 - iii. World Bank EHS Guidelines
- (d) Other key topics on environmental and social issues
 - i. Implementation of ESMF
 - ii. How to screen subprojects; appraise and approve them

- iii. How to supervise and report the implementation of Environmental and Social issues in the project
- iv. Environmental pollution
- v. Health care waste management
- vi. Protection of water resources against Health care waste
- (e) Capacity building for Grievance Redress Management (GRM) focal persons (Grievance Handling Officers GHOs) and members of the Grievance Redress Integrity Committee (GRIC)
 - i. Trained on the use of GRM guide which include grievances handling, reporting and addressing them to the respective authorities. The GRM has to be prepared in a manner that could capture and report Sexual Exploitation, Abuse and Harassment (SEAH) and Gender Based Violence (GBV) cases. In order to ensure optimal utilization of the GRM by the Project Affected Persons (PAPs) at workplaces, publication and sensitization on the existence of GRM is mandatory and has to be done by the responsible institution.

The timeline for these trainings is indicated in Table 8 below.

Table 8: Timeline for the proposed trainings by implementing Agencies

No.	Training Aspects	Duration	Time
1	Environmental and Social Impact Assessment	At the commencement of	2 weeks
	(ESIA) process	the project	
2	Environmental and Social Standards,	Environmental and Social Standards, At the commencement of	
	procedures and guidelines (WB and National)	the project	
3	Health care environmental and social issues	During implementation	2 week
4	Capacity building	Throughout the project	Project duration

7.5 PROJECT IMPLEMENTERS IN RESPECTIVE INSTITUTIONS AND LGAS

The developer (MOH) as an implementer of IPWE4D Project has to work in collaboration with Local Government Authorities (LGAs) – District Authorities and Shehia and other relevant institutions (OSHA, ZEMA, Fire & Rescue Forces, Ministry of Land, CDU). The developer will adhere to Planning Authorities particularly in urban areas by involving in matters such as seeking title deeds, building permits, comply with land use on the proposed sites, etc. The developer (MOH) will be responsible for preparing PHCU building designs which comply with the urban plan requirements and submit for endorsement of approval by CDU, Municipal Councils, District councils and Ministry of Lands. Therefore, it is important that, the local government (Shehia, Municipals and District) be aware and need to have basic knowledge and capacity. It is important

for them to also be included in the initial training on environmental screening and ESIA process in order to support the ESMF implementation appropriately. The training at this level will aim to (a) increase their ability to carry out environmental screening, support stakeholder engagement and understand the importance of addressing environmental and social risks and (b) enhance their capacity and ability to integrate environmental and social aspects in project planning, design and implementation. This will ensure successful implementation of the sub project activities while considering environmental sustainability. It is recommended that qualified Environmental Consultants with long experience to provide this kind of training.

8.0 CONSULTATION AND DISCLOSURE OF ENVIRONMENTAL AND SOCIAL DOCUMENTS

8.1 Consultation

Three stages of consultation/engagement are emphasized; the first stage was during preparation of the ESMF and the second stage will be done for providing feedback on the findings of the ESMF and the third stage will be during subprojects preparation including the ESIA process. The engagement process should ensure that the stakeholders are informed about the project and participate fully in the process.

8.1.1 Consultation during ESMF preparation

This ESMF requires that, stakeholders' consultations to be undertaken from the very initial stages of IPW4ED Project planning. On this basis, the preparation of this ESMF involved stakeholders' consultations whereby about 374 people (individuals and institutional) were consulted in 5Regions of Zanzibar. Among them 53% were men and 47% women. Furthermore, issues regarding vulnerable groups such as women, elderly, youth and people with disabilities were also raised in Ward and Shehia meetings. For example, it was raised that, the new health center buildings should consider and provide provisions for people with disabilities such as provision of ramps, special toilet facilities for people with disabilities. The ESMF recommends further stakeholder consultation in the next stages of safeguards preparation and will continue during project implementation to different groups of stakeholders in the areas where the subprojects shall be implemented.

8.1.2 Consultation during subprojects and ESIA preparation

The other stage of consultation shall be done during the subprojects (screening and scoping stage), and during undertaking of the ESIA study. Views and concerns will also be required during disclosure of ESIA and ESMP, and during design, construction and operation phases. Participation needs to be meaningful and inclusive of all stakeholders and communities, with emphasis on gender, ethnicity, income groups, minorities and vulnerable people. This ESMF insist that, consultation process should be a two-way dialogue with provision of project related information and obtaining feedback from participants that shall be used to improve project design and mitigation plans.

Furthermore, stakeholders' consultation and engagement during sub-projects preparation and ESIA process will require that stakeholders are informed about the project and participate in the

development of the ESIA. All consultations shall be documented to ensure all key information is presented including when the meetings are conducted (date/month/year) and where (regions/wards/villages), the number of people participating, how many men and women, number of vulnerable groups (women, elderly, youth, etc.) and number of people with disabilities. In addition, they should mention the venue where the meeting is conducted, number of institutions participated, number and names of people participated and key issues and responses raised in each group (Community members, institutions, NGOs, etc.).

8.2 Summary of Stakeholders' Views and Concerns

The stakeholders Consultation for preparation of this ESMF were conducted to collect views and concerns. A number of concerns were raised by the various stakeholders in different Shehia, Districts, and Regions in Zanzibar where IPW4ED Project will be implemented. A summary of key issues and concerns raised by stakeholders is provided hereunder;

- i. **Employment opportunities:** Shehia and their people requested that, during construction phase, local people should be given first priority for employment especially positions that do not require much skills or higher educational backgrounds.
 - **Response;** It was made clear that the Ministry will make follow up to the local leaders at the ward and Shehia to ensure that contractors who will be working in their areas should include the local people particularly unskilled labor.
- ii. **Public awareness on HIV/AIDS and STIs infections:** Stakeholders insisted on carrying out intensive awareness programs regarding awareness on HIV/AIDS and STIs infections to the community around subprojects areas to be implemented. Also, during implementation phase, the interactions between workers and the local people will be high; therefore, education on HIV/AIDS should be provided to reduce the risks of new infections among people.
 - **Response;** It was agreed that, there will be environmental and social staff at the contractor who will address HIV/AIDS and STI infectious diseases among the contractor's workers and also will liaise with community leaders for awareness and report any issues which will arise. The HIV/AIDS and STIs infections is already an issue due to tourism activities in Zanzibar hence the project should avoid further spread in its operations. The ministry will make monitor all safeguard issues including HIV/AIDS cases.
- iii. **Status of health centers:** In Pemba island health centers are in a very poor condition compared to Unguja Island health centers. Most of them were not designed as health centers. A good number of them were either residential houses or office buildings and

were converted to be health centers. Some of the architecture fails to accommodate efficiently the conducive environment of a good health center.

Response: The ministry is preparing a standard design for PHCUs and will consider all health issues required for a health center to have for efficient and sufficient services. In the other hand the Ministry has noted the poor conditions of health centers in Pemba and will put more emphasis on Pemba to address all health centers that will be included in this project.

iv. **All health centers have electric power:** The major strength of the entire system of health centers in Zanzibar is the availability of power in all health centers visited. This provides assurance in the provision n of health services all the time in an efficient manner.

Response; It was appreciated and promised to continue to ensure availability of power in all health centers throughout.

v. **Shortage of staff and staff houses**; Most of staff lack staff house in their respective health centers. In addition to this there is inadequate number of health staff. This poses health risks to the surrounding communities which have no other alternative in case of emergencies.

Response; The MOH has already noted this and is planning to conduct overall assessment to identify how much staff are required and include in the next financial year for employment. This matter is being dealt at the ministry level.

vi. **Suggestion Box:** The suggestion box is the existing system for receiving complaint from the public including health staff. However, the system is weak and there are no substantial suggestions of complains provided. There is a need to create awareness on how to lodge complains and what are the issues.

Response; It was agreed to strengthen the grievance redress mechanism and training will be required to create awareness on what to report, how to report and where to report.

vii. Lack of water supply facilities in Health centers; There is poor water supply in many health centers and some fetch water by bucket to nearby residents for operation in health center. The MOH should ensure that all health centers are adequately supplied with water and efficient hand wash facilities installed.

Response; The MOH will set up a budget to ensure all health centers are supplied with water and have well established WASH facilities.

viii. **Lack of adequate toilet facilities in health centers;** Most of them has either two or three toilets which are not enough for out-patients. Sometimes toilets for health staff are shared by out-patients which becomes a health risk for health staff.

Response; This was noted and will be included to all health centers which will be included in this project. The MOH will also find ways to ensure adequate toilet facilities in health centers.

ix. Lack of standard design for health center (PHCU & PHCU+); Every health center has its own Architectural design in terms of partitioning, interior design, size, ventilation and lightening, also workers' houses are not enough to accommodate present number workers.

Response; This was well noted and the MOH is already working on it.

x. **Capacity building training:** The issue of training was also mentioned by most stakeholders including at health staff. Their concern is, they don't have any knowledge or experience on management of environmental and social issues as a result the contractors uses that loophole to escape their responsibilities in mitigating environmental impacts during construction activities. Capacity building training should be provided.

Response; It was promised that, awareness to the PHCU staff and surrounding community members will be provided. The awareness training will enable them understand their responsibilities as a community and contractors' responsibilities. This will enable them enforce the contractor to have proper environmental and social safeguards management.

- xi. **Limited area or space for expansion of health centers:** Some of health centers need to be shifted to new areas during health center improvement process because they are in small areas and some are within the road reserve. Since new areas will be needed there will be issues of land acquisition and compensation
 - **Response;** For health centers which have no area for expansion, either they will find another place where new health facility will be constructed or relocate some of the nearby residents in order to get area for expansion of the health center. Those people who their land will be taken will be compensated according to Zanzibar compensation laws as specified in the RPF.
- xii. **Solid waste management system;** The public realize that, there is no proper solid waste management for health care wastes. in most of health centers SWM is poor because in most PHCU they use burning pit for burning of wastes from health centers. However, burning of waste in environmentally unfriendly way of disposal which is not acceptable. Other PHCU have no burning pits and they do open burning outside at the backyard of

the health center. All PHCU don't have incinerator and there is no arrangements transport to transport hazardous wastes to District Hospital where there are incinerators.

Response; The MOH in collaboration with the local government and district will ensure proper health care management. Most of the PHCU+ will be provided with incinerators and those which will not provide, there will be proper arrangement for transportation of hazardous wastes to the nearby PHCU or District Hospital with the Incinerator for them to incinerate those wastes.

8.3 Disclosure

The ESMF and other safeguard documents such as ESIA and ESMPs which will be prepared in the later stages shall be disclosed, The MOH of Zanzibar through Project Coordination Unit (PCU) will disclose the approved documents/reports/information (ESMF, ESIA, ESMP) to the public. The key findings of the ESMF, ESMPs, ESIA and other relevant studies such as SEP, RPF, LMP will be disclosed and become accessible by the public through i.e. MOH website, WB info-shop, local notice board, public information point /center, ward, district, etc.; for notification and for receiving response to issues raised by stakeholders. The PCU in the MOH will also ensure that, non-technical summaries of the ESIA and ESMP are presented in an understandable form, manner and translated into Swahili language. The Bank will make these safeguards documents available to the public in accordance with Bank's safeguard standard ESS10 on stakeholder engagement and disclosure.

9.0 COST FOR IMPLEMENTATION OF THE ESMF

Satisfactory budget allocation is important requirement for effective implementation of the environmental and social management framework (ESMF). It will enable key issues in the ESMF such as screening, training, capacity building, reviewing and monitoring mechanisms to be addressed. Since the implementation of the ESMF of the proposed IPW4ED Project is associated with significant costs that will be incurred, then these costs need to be estimated to ensure its successful implementation. As indicated in section 9.1 about proposed will involve trainings to PMU team and other high level staff from the project and subprojects supervisors who will be involved in the implementation of the sub projects. The training should be done in order to build their capacity on environmental and social issues. The participants of the training will therefore include staff from MOH (i.e. PCU, E&S team and others) and staff from other implementing institutions such as ministries, departments and local government authorities (LGAs)/Shehia. These training will enable them to understand processes of E&S issues, screening, review and monitoring of environmental and social issues in subprojects.

The costs will cover training in the form of short and long workshops to enhance skills on environmental and social issues during implementation regarding environmental and social policies, procedures and guidelines, screening process, impact assessment, developing mitigation plans, monitoring and reporting. Other training will include environmental and social issues like gender, environmental pollution, waste management and occupational health and safety issues. An estimated budget is indicated in Table 8 below including monitoring will be required to ensure effective implementation of the ESMF to comply with environmental and social standards that will be likely triggered by sub projects. All the costs are estimates based on previous experience from other projects. The proposed costs are only indicative, so changes may happen and actual costs will be determined during implementation stage.

Monitoring will be conducted during implementation of the sub-projects in order to follow up the implementation plan and compliance with ESMF requirements. This will help in identifying conditions that may need particular attention for mitigation. The estimated cost for implementing the ESMF is as indicated in Table 9 below.

9.1 ESMF Implementation Budget

Table 9: ESMF Implementation Budget

No.	Proposed ESMF activity	Responsible Entity	Indicator	Cost in USD
1	Costs for screening subprojects	Project Implementing Institution (i.e. MOH)/Consultant	Screening forms and results	20,000
2	Costs for scoping exercise	Project Implementing Institution (i.e. MOH)/Consultant	Scoping reports	50,000
3	Costs for preparation of ESIA	Project Implementing Institution (i.e. MOH)/Consultant	ESIA and ESMPs reports	300,000
4	Costs for monitoring			
	• Year 1	Project Implementing Institution (i.e. MOH)/Consultant	Quarterly Monitoring reports	100,000
	Year 2	Project Implementing Institution (i.e. MOH)/Consultant	Quarterly Monitoring reports	100,000
	• Year 3	Project Implementing Institution (i.e. MOH)/Consultant	Quarterly Monitoring reports	100,000
	• Year 4	Project Implementing Institution (i.e. MOH)/Consultant	Quarterly Monitoring reports	100,000
5	Costs for Training	Project Implementing Institution (i.e. MOH)/Consultant	Training workshop report	150,000
6	Costs for Safeguards supe	rvision		
	Year 1	Project Implementing Institution (i.e. MOH)/Consultant	Quarterly progress reports	20,000
	Year 2	Project Implementing Institution (i.e. MOH)/Consultant	Quarterly progress reports	20,000
	• Year 3	Project Implementing Institution (i.e. MOH)/Consultant	Quarterly progress reports	20,000
	Year 4	Project Implementing Institution (i.e. MOH)/Consultant	Quarterly progress reports	20,000
Gran	d Total (USD)			1,000,000

10.0 CONCLUSIONS AND RECOMMENDATIONS

The IPW4ED project is expected to comply with all the requirements of WB safeguard standards and the Tanzania environmental and social policies and laws from its implementation stage and throughout its lifecycle. The Environmental and Social Management Framework (ESMF) has provided procedures for undertaking Environmental and social screening, identified world bank safeguard standards that apply to the IPW4ED Project and its associated sub projects, potential impacts, institutional roles and responsibilities, capacity building and training requirements, technical assistance required, specific way as to how the environmental and social management plan should be prepared and addressed, how monitoring and reporting should be carried for the project. It also specifies how the sub-projects should be reviewed and approved for clearance by implementers. The ESMF further provides potential impacts and mitigate of sub-projects activities including requirements for preparation of site-specific Environmental and Social Impacts Assessment (ESIA) where applicable in accordance to ZEMA no.3 of 2015, Environmental Impact Assessment (procedures) regulations of 2002 and the World Bank safeguard standards (ESS).

The Ministry of Health (MOH) as a project implementer should therefore ensure compliance to all requirements of the ESMF as it has outlined all key processes and procedures to be followed. Other relevant implementing institutions have also to be committed in enhancing implementation of the ESMF. The existing information in the ESMF is based on the current situation but specific information of sub-projects such as site location across Zanzibar, types and use of equipment/machines, vegetation types, geo-physical features, size of the Subproject area, sources of materials and their quantities is not yet clear at this stage. So, the severity, details and intensity of environmental and social impacts will be determined during site specific ESIAs or ESMPs.

The ESMF recommends the following:

i) Needed Technical assistance

The ESMF has identified gaps and inadequacy on necessary knowledge and skills on Environmental and Social (E&S) issues for implementing institutions, that is, the MOH itself, LGAs, Ministries and others. So, there is a high need of technical assistance on E&S issues as the collaborating institutions such as local government authorities where most of the sub-projects will be located have inadequate capacity to implement the ESMF. The ESMF has indicated means and where the technical assistance can be sought and recommends that adequate technical assistance to be available during implementation and operation of the sub-projects.

ii) Capacity building

This can be undertaken simultaneously when the technical assistance is going on. The ESMF recognizes the importance of strengthening the capacity of key staff at the implementing institutions in order to be able to comply with the requirements of the World Bank and Tanzania policies and laws. So, improving capacity to key staff on E&S issues will enhance their institution's capacity in future to address environmental and social issues appropriately.

iii) Training

This should be conducted to key staff and even extended to supporting staff who will be involved in decision making, screening, reviewing, monitoring and approval at the implementing institution.

iv) Compliance to requirements of the ESMF

The project implementers should ensure compliance to all requirements of the ESMF as it outlines all key processes and procedures to be followed. The MOH of Zanzibar therefore has the responsibility of ensuring compliance with the ESMF. The World Bank will also be following up through regular implementation review missions.

v) Integration of E&S issues

The ESMF strongly recommends integration of environmental and social issues in all subprojects that will be implemented under this IPW4ED project. The implementation should comply to safeguard standards and national policies and laws as elaborated in the report.

11.0 REFERENCES

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WB (2007). Environmental, Health and safety (EHS) Guidelines: General EHS Guidelines; Occupational Health and Safety.

12.0 ANNEXES

Annex I: List of Stakeholder's consulted

Table 10: List of stakeholders consulted

No.	Name	Institution	Title	Contact/Address	Date
1	Dr.Fatuma H. Mrisho	MOH Zanzibar	Dr/PS	pps@mohz.go.tz	17/1/2022
2	Dr.Abdullah S. Ali	МОН	Director General	Zanzibar	17/1/2022
3	Yakoub M. Shoka	MOH - Pemba	Health Coordinator	Yshoka52@gmail.c om	17/1/2022
4	Abdul-Latif Haji	MOH	OG Coordinator WB	Zanzibar	17/1/2022
5	Rukaiya M. Said	МОН	Social Safeguards	Zanzibar	17/1/2022
6	Dr.Salim M. salim	МОН	Project Coordinator	Zanzibar	17/1/2022
7	Faki M. Faki	MOH	Focal Person	Zanzibar	17/1/2022
8	MwnaaChe M. Haji	МОН	Accountant	Zanzibar	17/1/2022
9	Salima H. Suleiman	МОН	Procurement Officer	Zanzibar	17/1/2022
10	Yahya M, Mselem	MOH	Public Health Coord.	Zanzibar	17/1/2022
11	Masoud F. Saleh	MOH-Pemba	Planning Officer	msdfdhl@gmail.co m	17/1/2022
12	KhamisBilali Ali	MOH-Pemba	Preventive Officer	Ichani.bilali@yahoo.co .uk	17/1/2022
13	Ali AsalimMatta	Second Vice P.O	Officer in Charge	Asamatta1979@gmail. com	17/1/2022
14	HamisaHamadiMpenja	TUNGAMAA	RAIA	0772853788	18/1/2022
15	ZainabMussaMoui	TUNGAMAA	RAIA	0777406941	18/1/2022
16	RehemaAbdallahJuma	TUNGAMAA	RAIA	0778875019	18/1/2022
17	Halima Salim Hassan	TUNGAMAA	RAIA	0777744583	18/1/2022
18	Maryam JumaMaalim	TUNGAMAA	RAIA	0779224486	18/1/2022
19	Fatma Omar Hamad	TUNGAMAA	RAIA	0774844191	18/1/2022
20	Asha Hamad Ally	TUNGAMAA	RAIA	0712992902	18/1/2022
21	SharifaMarwa	TUNGAMAA	RAIA	0777155757	18/1/2022
22	FatmaFaridJadi	TUNGAMAA	RAIA		18/1/2022
23	Time Ali Omar	TUNGAMAA	RAIA	0773333962	18/1/2022
24	AbedaKasiano A	TUNGAMAA	RAIA	0776561562	18/1/2022
25	Rasila Hamad Oma	TUNGAMAA	RAIA	0778751028	18/1/2022
26	Khadija Said Juma	TUNGAMAA	RAIA	0773478490	18/1/2022
27	Fatma Ali Khamis	TUNGAMAA	RAIA	0776883834	18/1/2022
28	Siti Haji Hamad	TUNGAMAA	RAIA	0776113275	18/1/2022
29	Biubwa H Jabir	TUNGAMAA	RAIA	0772080386	18/1/2022
30	MwajumaNassor	TUNGAMAA	RAIA	0779452009	18/1/2022
31	Asha KhanisDadi	LIMBANI/SHEHIA	N/SHEHA	0772762948	18/1/2022
32	Salim Saleh	LIMBANI/SHEHIA	M/KAMATI	0773140699	18/1/2022
33	Salama W Hamad	MEMBER SHEHIA	MJUMBE	0773701270	18/1/2022
34	Sanura N S'mad	TUNGAMAA	RAIA	0773082209	18/1/2022
35	Maimuna O Hamad	TUNGAMAA	RAIA	0778880834	18/1/2022
36	Moza Ali Najim	TUNGAMAA	RAIA		18/1/2022
37	Fatma JumaKingana	TUNGAMAA	M/KAMATI	0774891748	18/1/2022
38	Zainab Saleh Hamad	TUNGAMAA	RAIA	0777178213	18/1/2022

No.	Name	Name Institution Title		Contact/Address	Date
39	Madina Haji Ali	TUNGAMAA	RAIA	0772706590	18/1/2022
40	Riziki Ali mgeni	TUNGAMAA	RAIA	0776869921	18/1/2022
41	Asma Suleiman Mbarohi	TUNGAMAA	RAIA	0778765110	18/1/2022
42	BikombKriSeif	TUNGAMAA	RAIA	0776163797	18/1/2022
43	Salma MohDomar	TUNGAMAA	RAIA	0771306958	18/1/2022
44	Subira Said Halid	TUNGAMAA	RAIA		18/1/2022
45	Zainabu Said Khamis	TUNGAMAA	RAIA	0777524480	18/1/2022
46	Nassra Hamad Mioo	KIZIMBANI	RAIA	0712914357	18/1/2022
47	Nadhifa Rashid Bal	LIMBAN	RAIA	0776839164	18/1/2022
48	Maryam Hamad Khaa	TUNGAMAA	RAIA	0777230666	18/1/2022
49	Salma Rashid Salum		RAIA	0779296122	18/1/2022
50	Fatma Hamad Hassan	KIZIMBANI	RAIA	0772251293	18/1/2022
51	Fatma Salim Ali	LIMBANI	RAIA	0777025122	18/1/2022
52	Maryam Hassan Khatibu	JADIDA	RAIA	0774809732	18/1/2022
53	Najma A Juma	MOH (EHV)	EHO	0774591414	18/1/2022
54	Khamis Bilau Ali	MOH PEMBA	A/V KINGA	0777877729	18/1/2022
55	Abraham Ali Khamis	Shehia ya Limbani	RAIA	0779621617	18/1/2022
56	Abdul Hamed Khamis	Shehia ya Limbani	RAIA	0776823692	18/1/2022
57	Alawi Omar Hamad	Shehia ya Limbani	RAIA	0776110223	18/1/2022
58	Ali Hamad Khamis	Shehia ya Limbani	RAIA	0774380862	18/1/2022
59	Omar Bakar	Shehia ya Limbani	RAIA	0773704535	18/1/2022
60	Ramadhan Hasan	Shehia ya Limbani	MJUMBE	0713186487	18/1/2022
61	Said N Said	Shehia ya Limbani	RAIA	0778851164	18/1/2022
62	JaboMaptahsi	Shehia ya Limbani	RAIA	0778705431	18/1/2022
63	Subrusi Ab fari	Shehia ya Limbani	RAIA	0778760541	18/1/2022
64	Maulid Omar Saleh	Shehia ya Limbani	RAIA	0777878691	18/1/2022
65	Khalid Khamis Juma	Shehia ya Limbani	RAIA		18/1/2022
66	Mbaruku Ali Abdallah	Shehia ya Limbani	RAIA	0776545609	18/1/2022
67	Masoud Hamad	Shehia ya Limbani	RAIA	0773590896	18/1/2022
68	Makame Ali Ali	Shehia ya Limbani	RAIA	0657572139	18/1/2022
69	Hamoud Salim Saleh	Shehia ya Limbani	RAIA	0655103491	18/1/2022
70	HilfatZyumaVuai	Shehia ya Limbani	RAIA	0673478999	18/1/2022
71	Kinyamizikhkinon	Shehia ya Limbani	MFANYAKAZI	0673478999	18/1/2022
72	Nassir Mbarouk Khamis	JADIDA PHCU	C/O	0744376556	18/1/2022
73	Fatma Amour Hemed	JADIDA PHCU	C/O	0773561336	18/1/2022
74	MwajabuHemed M	JADIDA PHCU	H/O	0776947053	18/1/2022
75	Shamis Hamad Abdallah	JADIDA PHCU	COUNSELLING	067895394	18/1/2022
76	Hasina Ali Nassor	JADIDA PHCU	G/NURSE	0777462430	18/1/2022
77	MwajumaSalum Omar	JADIDA PHCU	MJUMBE WA SHEHA	0776702238	18/1/2022
78	Maryam Salim Ali	JADIDA PHCU	G/NURSE	0773171307	18/1/2022
79	RehemaKhalidMshamata	JADIDA PHCU	G/NURSE	0774036589	18/1/2022
80	Tima Ali Said	JADIDA	BAIMU SHEHA	0774331759	18/1/2022
81	AsyaAyoub KA	L;IMBANI		0773478841	18/1/2022
82	Maryam Ali Hemed	TUNGAMAA		0773732272	18/1/2022
83	SalamaYuai Haji	M/MWEMA		0674712383	18/1/2022
84	Fatma Hamad Kassim	UTAAN		0779516942	18/1/2022
85	Chumu Ali Arafat	KIZIMBANI		0776051839	18/1/2022
86	Maryam UbwaMago	KIFOI		0778354365	18/1/2022
87	Asha Khamis Hamad	BOPWE		0779293724	18/1/2022

No.	Name	Institution	Title	Contact/Address	Date
88	Suleiman Jumalpo	B/JIKO		0778769911	18/1/2022
89	Ali Suleiman Ali	FINJA PHCU	G/NURSE	0777646996	18/1/2022
90	Ahadia Ali Masoud	FINJA PHCU	H/ORDELY	0774745487	18/1/2022
91	Masoud Omar Khamis	FINJA	NAIBU SHEHA	0774393026	18/1/2022
92	Khadija HabibMemb	FINYA	MWANANCHI	0772077737	18/1/2022
93	Hamad Mlabour Ali	FINYA	MWANANCHI	0772223756	18/1/2022
94	Hamad S Yahya	FINYA	MWANANCHI	0777272874	18/1/2022
95	Said Abdallah Ali	KIFUNDI PCHU	RAIA CHIV	0777879483	18/1/2022
96	Mauwa Ramadhan Abeid	KIFUNDI PCHU	RAIA CHIV	0677538662	18/1/2022
97	Asha Hamad Ali	KIFUNDI PCHU	RAIA CHIV	0777494857	18/1/2022
98	Kombo Mohamed Haji	KIFUNDI	DHO	0772115147	18/1/2022
99	Fatma Hamad Ibrahim	KIFUNDI	H/O	0777190152	18/1/2022
100	Zenaya Ali Hamad	KIFUNDI PHCU	N/MW	0772170583	18/1/2022
101	Salim Suleiman Nassor	KIFUNDI PHCU	G/NURSE	0773179953	18/1/2022
102	Said Ali Khamis	KIFUNDI	CHV	0778103127	18/1/2022
103	Omar Khamis Hassan	KIFUNDI	JAMII	0777842397	18/1/2022
104	Seif Abdallah Seif	KIFUNDI	JAMII	0777462764	18/1/2022
105	Mahamoud M Omar	KIFUNDI	RAIA	0712517816	18/1/2022
106	Nuhu Bakar Hamad	KIFUNDI	RAIA	0773062412	18/1/2022
107	Hassan Ali Abass	KIFUNDI	RAIA	0776788652	18/1/2022
108	Said SalumLingamba	KIFUNDI	RAIA	0777471731	18/1/2022
109	Said Salim Said Ali	KIFUNDI	RAIA	0772473700	18/1/2022
110	Hamad Abdallah Hamad	KIFUNDI	RAIA	0773126689	18/1/2022
111	Khamis Juma Nuhu	KIFUNDI	RAIA	0777891349	18/1/2022
112	Rashid Said Ali	KIFUNDI	RAIA	0777899026	18/1/2022
113	Mfaki Hamad Bakar	MZ/NG'OMBE	PHO	0773170985	18/1/2022
		PHCU			
114	Farida Bakar Rashid	MZ/NG'OMBE PHCU	C/O	0777912881	18/1/2022
115	SadaKombo	MZ/NG'OMBE	CHV	0627058783	18/1/2022
116	Khadija Faki Hamad	MZ/NG'OMBE	CHV	0627858415	18/1/2022
117	Mpanga Ramadhan Juma	MZ/NG'OMBE	CHV	0629026373	18/1/2022
118	Biraje Rashid Haji	MZ/NG'OMBE	CHV	0626307720	18/1/2022
119	Khatib Said Juma	MZ/NG'OMBE	RAIA	0777438661	18/1/2022
120	Kombo Hamad Kombo	MZ/NG'OMBE	H/O	0773302759	18/1/2022
121	Tauhida Mohamed Ali	MZ/NG'OMBE PHCU	H/O	0776892694	18/1/2022
122	Mjaka Y. Juma	MZ/NG'OMBE PHCU	MJUMBE K/AEYA	0777626994	18/1/2022
123	Omar Hussein Said	MZ/NG'OMBE	MW/KITI	0774121017	18/1/2022
124	Faki Hamad Juma	MZ/NG'OMBE	SHEHA	0778167366	18/1/2022
125	Assaa Hamad Saleh	SIZINI PHCU	C/O		18/1/2022
126	Abdallah Rashid Dawa	SIZINI PHCU	LAB TECH		18/1/2022
127	Omar Hamad Mbwana	SIZINI PHCU	H/O		18/1/2022
128	Rehema Ali Saleh	SIZINI PHCU	G/NURSE		18/1/2022
129	Siti Ali Salim	SIZINI PHCU	H/O		18/1/2022
130	Salma Said Makame	SIZINI PHCU	H/O		18/1/2022
131	Khamis Rashid Khamis	SIZINI PHCU	MLINZI		18/1/2022
132	Shida Khamis Othman	OLE SHEHA			18/1/2022

No.	Name	e Institution Title Contact/Address		Date	
133	Sada Khalfan	OLE SHEHA	EHA		18/1/2022
134	Jamal Abdul Mussa	OLE PHCU	C/O	0774594653	18/1/2022
135	TakdirHafidhJuma	UWANDANI PHCU			18/1/2022
136	Ali IssaMussa	D/MT CCHAKE		0773676793	18/1/2022
137	Salim Juma	UWANDANI	MJUMBE	0773257718	18/1/2022
138	Abdallah Juma Abdallah	UWANDANI	MJUMBE	0773327024	18/1/2022
139	Ali M. Hamad	UWANDANI	SHEHA	0773626249	18/1/2022
140	Sharif A.Kombo	UWANDANI	MJUMBE	0777710187	18/1/2022
141	Halima Said Ali	UWANDANI	MJUMBE	0773161932	18/1/2022
142	Sada Yahya Ali	UWANDANI	MJUMBE	0774330793	18/1/2022
143	HaroubAbeid Ayoub	ZAPHA	MJUMBE	0777470124	18/1/2022
144	Rashid M Khamis	JUWAMIPE	KATIBU	0778910622	18/1/2022
145	Nassor Ali Haji	JUKAMKUM	KATIBU	0773176527	18/1/2022
146	Juma Masoud Juma	WAMATA-PEMBA	KATIBU	0773838184	18/1/2022
147	Ali Abdalla Juma	VECA	KATIBU	0772076750	18/1/2022
148	Suleiman Kombo Ali	MKUPE	M/KATIBU	0773650871	18/1/2022
149	Maua Nassor Khamis	MOH/PEMBA	PROJECT OFFICER	0772282112	18/1/2022
150	Khamis Nassor Mohamed	JUKUHUM	MJUMBE	0773085066	18/1/2022
151	Mashavu Abdalla	KANGANI PHCU	G/NURSE	KANGANI	18/1/2022
152	Neema Hamada Shaali	KANGANI PHCU	G/NURSE	KANGANI	18/1/2022
153	Yussuf Omar Massoud	KANGANI PHCU	PHO	KANGANI	18/1/2022
154	Rashid Suleiman Ali	KANGANI PHCU	C//O	077787986	18/1/2022
155	Said Omar Suleiman	KANGANI PHCU	H/O	KANGANI	18/1/2022
156	Abdulrahim S. Abdul	KANGANI		KANGANI	18/1/2022
157	Amina Juma Ali	KANGANI		KANGANI	18/1/2022
158	Suriya Suleiman Bakari	KANGANI		KANGANI	18/1/2022
159	Farida Othuman Chum	KANGANI		KANGANI	18/1/2022
160	Maryam Husein	KANGANI		KANGANI	18/1/2022
161	Salna Saleh	KANGANI		KANGANI	18/1/2022
162	Lao Muhsin	SHEHA YA KUKUU	MJUMBE	KANGANI	18/1/2022
163	Zuwena Abdallah Juma	KANGANI SHAMIANI		KANGANI	18/1/2022
164	Saada Abdallah Bakari	KANGANI	KAMATI YA AFYA	KANGANI	18/1/2022
165	AfadhaliJumaAfadhali	KANGANI	SHEHA	KANGANI	18/1/2022
166	Hussein Mohamed Salum	KANGANI	M/GTAMIL	KANGANI	18/1/2022
167	SwaleheJuma	KANGANI	M/GTAMIL	KANGANI	18/1/2022
168	Muweza S. Juma	KANGANI	M/JAMII	KANGANI	19/1/2022
169	Mohamed Ali Bakar	KANGANI	MJUMBE KAMATI	KANGANI	19/1/2022
170	SakinaTwahir	KANGANI		KANGANI	19/1/2022
171	Amina Mohamed Abdallah	TASINI	H/O	0772677464	19/1/2022
172	Mohamed Khamis Ali	SHUNGI	SHEHA	0777855175	19/1/2022
173	Hamad Ramadhan	SHUNGI		0774706004	19/1/2022
174	Mbarouk Khamis Rashid	SHUNGI	MJUMBE	0773430476	19/1/2022
175	Mbaroukldrisa Omar	SHUNGI	MJUMBE	0774123168	19/1/2022
176	Khadija Sigwa	SHUNGI	MJUMBE	0777852580	19/1/2022
177	Hudna Sultan	SHUNGI	H/O	0776437843	19/1/2022

No.	Name	Institution	Title	Contact/Address	Date
178	SalumFaudh H.	SHUNGI	H/O	0776699933	19/1/2022
179	Ali Issa Musa	SHUNGI CHAKE	D/TECHNITIAN	0777366779	19/1/2022
180	Kadhija M Bakari	SHUNGI PHCU	NURSE	0777877740	19/1/2022
181	Nassor J Nassor	ZEMA	EIA OFFICER	0778345656	20/1/2022
182	Zaituni M. Haji	ZEMA	LEGAL OFFICER	0773129393	20/1/2022
183	Habiba A. Twaha	ZEMA	EIA OFFICER	0773668309	20/1/2022
184	Ali V. Pandu	ZEMA	HEAD EIA	0773312254	20/1/2022
185	Mgeni M. Khamis	ZEMA	ACTING D. G	0777465539	20/1/2022
186	Hassan Kh. Hamis	ZAWA	TECHNICAL OPERATION DIRECTOR	0777307018	20/1/2022
187	Bilal KhAbass	ZAWA	MKUU WA MTANA	0777984465	20/1/2022
188	MaulidK.Haji	ZAWA	DISTRICT WATER OFFICER-URBAN	0777437345	20/1/2022
189	Ameir M Nahoda	ZAWA	MSE OFFICER	0776130504	20/1/2022
190	Ali Abdul Ali	ZAWA	MRATIBU	0777483922	20/1/2022
191	Salim Hamis Salim	ZAWA	AFISA UHUSIANO	0659102179	20/1/2022
192	Khatib Khalid Hamad	K/KAZI	AFISA KAZI	0772211393	20/1/2022
193	Hamad Khamis Jecha	OSH	MKAGUZI OSH	0776537316	20/1/2022
194	Yusuf S Muhsin	OSH	MKAGUZI OSH	0744114444	20/1/2022
195	Nasir Ayoub Juma	OSH	MKAGUI OSH	0776471770	20/1/2022
196	Rashid M. Abdallah	KZU	KAMISHNA	0715304014	21/1/2022
197	Mrisho I Mbarak	KZU	DCF	0777472349	21/1/2022
198	Makame O. Moha	K.Z.U	A/MAFUNZO	0776656150	21/1/2022
199	ASF Simai M Tano	KZU	AFISA MIPANGO	0776544759	21/1/2022
220	Ali Fahmi Mussa	KZU	Ms.MIPANGO	0776205561	21/1/2022
221	A.S.F Rajab/ODI	KZU	M/ULINZI	0773499370	21/1/2022
222	ASF Mohamed A Haji	KZU	M/SHERIA	0777304554	21/1/2022
223	SF Ibrahim A Hassan	KZU	M/WA MAFUNGO	0713321727	21/1/2022
224	Stara Ally Mohamed	KITOPE PHCU	NMWS	0777907018	21/1/2022
225	Mossi K Makame	DHMT KAS 13	DPHO	0777207260	21/1/2022
226	Andrew M.Mathew	KAIMU SHEHA	KITOPE	0777873910	21/1/2022
227	Kasim Omar Mohamed	UPENJA PHCU	CO	0656404928	21/1/2022
228	NahodaJumaMshamba	UPENJA H/O		0776552892	21/1/2022
229	FarashuuZubeir	UPENJA H/O		0777399440	21/1/2022
230	Tamima Khamis Nyange	UPENJA PHCU	GENERAL NURSE	0777500743	21/1/2022
231	Salma Shafi Musa	UPENJA PHCU	G/NURSE	0777457831	21/1/2022
232	Zainab Mjakiir Omar	UPENJA PHCU	L/TECH	0772225000	21/1/2022
233	MakameMchaMkanga	SHEHA/KISONGON		0773823768	21/1/2022
234	Jaffar M Awe	UPENJA PHCU	EHO	0772849177	21/1/2022
235	Silima Mati Mussa	CHV MGAMBO	CHV	0778646457	21/1/2022
236	Salma Hussein Yussuf	B/MAKOBA	G/NURSE	0777878059	21/1/2022
237	Kitiba HajiMshenga	B/MAKOBA	H/O	0776439123	21/1/2022
238	BadriyaJuma Abdulla	B/MAKOBA	H/O	0676347394	21/1/2022
239	HawaMakungu Talia	B/MAKOBA	R.CROSS	0777235669	21/1/2022
240	MtuminaJumaMakungu	B/ MAKOBA	CHV	0777707015	21/1/2022
241	Omar Mohamed Omar	B/MAKOBA	SHEK/SHEHA	0655824688	21/1/2022
242	Yunus O Mohamed	K/MVUA	C/O	0773482911	21/1/2022

No.	Name	Institution	Title	Contact/Address	Date
243	MnonoAmeSalum	K/MVUA	G/N	0777689132	21/1/2022
244	Arafa Mohamed Khamis	K/MVUA	G/N	0773259402	21/1/2022
245	Khairia Haji Vuai	K/MVUA	H/O	0774140585	21/1/2022
246	Mkasi Abdalla Hamidu	K/MVUA	H/O	0773651817	21/1/2022
247	Sabrina Upendo Salim	K/MVUA	H/O	0776087757	21/1/2022
248	MwanunuBakache	K/MVUA	E.H.O	0773694294	21/1/2022
249	Arafa Ahmada	K/MVUA	H/O	0773533010	21/1/2022
250	Jecha S. Kinole	K/MVUA	M/KAMATI	0777515086	21/1/2022
251	ChausikuSimaiMgeni	K/MVUA	KATIBU WA KAMATI	0772371435	21/1/2022
	_		AFYA		
252	Maryam Ashkina Ali	K/MVUA	MJUMBE WA KAMATI	0774240839	21/1/2022
253	Mashavu Nae Omar	K/MVUA	MJUMBE WA KAMATI	0778192828	21/1/2022
254	Semen MussaSalum	K/MVUA	MJUMBE/KAMATI	0774144942	21/1/2022
255	Saumu Kombo Khamis	KITUO CHA AFYA	G/NURSE	0777877120	22/1/2022
		KIDOTI	,		
256	Siti Khamis Makame	MJUMBE WA SHEHA	K/SHEHIYA	0773149389	22/1/2022
257	Haji Mohamed Juma	SHEHA/FUKUCHAN	F/SHEHA	0773170481	22/1/2022
258	JumaNyange Omar	SHEHA/BWEREU	B/SHEHA	0773338412	22/1/2022
259	Haji Ame Jabir	H/O	KIDOTI	0777691461	22/1/2022
260	Tatu Ali Haji	MJUMBE WA	KIGONGONI	0779226943	22/1/2022
		SHEHA			
261	Fadhila Dosa Wanimu	KATIBU SHEHA	KIDOTI	0774122667	22/1/2022
262	Iliyasa B. Makame	DHMI KAS A	DHO	0762274384	22/1/2022
263	Ussi Haji Baro	SHEHA KILIMANI	SHEHA	0777848529	22/1/2022
264	Haji JumaJuma	SHEHA YA MKOKOTONI	SHEHA	0773293882	22/1/2022
265	Juma Haji Khamis	KATIBU SHEHA/PALE	MJUMBE	0777846486	22/1/2022
266	Mwanaidi Hamad Mpenda	KATIBU SHEHA/MTO WA PWANI	MJUMBE	0772557763	22/1/2022
267	MwanakomboMtumwa	KATIBU SHEHA/MKOKOTO NI	MJUMBE	0779770041	22/1/2022
268	Iliyasa B Makame	DHO-DHMT	DHO	0762274384	22/1/2022
269	Ramadhan KA Omar	MKUU WA KITUO MKOKOTONI	C/O	0772671398	22/1/2022
270	Ahmad M Kombo	KIJINI PACU	C/O	0717262733	22/1/2022
271	JamhuriMadua	KIJINI PHCU	H/O	0773072681	22/1/2022
272	Siti Liuku Khamis	KIJINI KATIBU/SH		0778080975	22/1/2022
273	Tanolme Haji	KIJINI MJUMBE		0777198373	22/1/2022
274	Seif R. Seif	CHAANI KIKOBWENI	C/O	0778252284	22/1/2022
275	MwinyiMwiniMgeni	CHAANI KIKOBWENI	P/TECHNICAL	0773234590	22/1/2022

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277	Abdulhafur I Ussi	SHEHA CHIKUBWA	SHEHA	0778041597	22/1/2022
278	Salma Omar Mohamed	M/SHEHA	M/SHEHA	0777642408	22/1/2022
		BANDAMAJI			
279	Sheha Haji Ussi	CHAANI KUBWA	M/SHEHA	0773822997	22/1/2022
280	Yusuf Ame Ali	KIKOMBWENI	NAIBU SHEHA	0777175494	22/1/2022
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282	ZuwenaYakobAme	MIWANI PHCU	CLINICAL OFFICER	0778928153	24/1/2022
283	Amina Hamad Masoud	MIWANI	H/O	0776392331	24/1/2022
284	Ibrahim IddiYahya	MIWANI	H/O	0682038088	24/1/2022
285	Hassan Othman Mweleko	MIWANI	SHEHA	0658580420	24/1/2022
286	Abdalla Ismail Mbegu	M/MBE	SHEHA	0715702845	24/1/2022
287	Maryam KhamisKirugwa	UZINI PHCU	C/O	M/MAJI	24/1/2022
288	Zenaya Abdalla Ali	UZINI PHCU	G/N	MWERA	24/1/2022
289	Maryam Ali Hassan	UZINI PHCU	LAB/TECH	MPAPA	24/1/2022
290	Khadija M Zamir	UZINI PHCU	N/MW	PANGAWE	24/1/2022
291	Siti Seif Othman	UZINI PHCU	M/M	GHANA	24/1/2022
292	Hassan Mohamed Isa	UZINI PHCU	DMSU KATI	KWARARA	24/1/2022
293	Latifa Ameir Khalid	UZINI PHCU	M/O	MAKADARA	24/1/2022
294	Maryam Rashid Khamis	UZINI PHCU	PHARM/TECH	0655691460	24/1/2022
295	Salma B Mohamed	DHMT KATI	DHAO	0777487280	24/1/2022
296	Ahmed Issa Omari	MCHANGANI	AIMED OFFICER	MWEZA	24/1/2022
297	JumaYussufJuma	MCHANGANI	SHEHA	MCHANGANI	24/1/2022
298	Pate Makungu Ishak	MCHANGANI	MJUMBE	MCHANGANI	24/1/2022
299	NawajeMussaVuai	MCHANGANI	MJUMBE	MCHANGANI	24/1/2022
300	Hamida Khamis Khatib	MCHANGANI	H/ODAL	MCHANGANI	24/1/2022
301	Ali Rashid Ali	MCHANGANI	H/ODAL	MCHANGANI	24/1/2022
302	Asha Khamis Haji	UMBUJI RCH	PHN "B"	0778294758	24/1/2022
303	Zainab Issa Mgongo	UMBUJI OPD	G/N	0777487387	24/1/2022
304	Khadija Hamdan Marwa	UMBUJI OPD	H/O	0774405966	24/1/2022
305	Mwajuma Musa Khamis	UMBUJI OPD	H/O	0773707599	24/1/2022
306	Ali Sharifu Mohamed	UMBUJI OPD	EHO	0657037104	24/1/2022
307	Salma B M ohamed	DHMT KATI	DHAO	0777487280	24/1/2022
308	Hidaya Khamis	SHEHA YA UMBUJI	MJUMBE	0777028843	24/1/2022
309	Khatib Abdalla	SHEHA YA UMBUJI	MJUMBE	0773531293	24/1/2022
310	Maulid Ali Khamis	CHWAKA PHCU	C/O	0778705067	24/1/2022
311	Ahmed A Omar	CHWAKA PHCU	PHAR/TECH	0773656241	24/1/2022
312	Khadija A Ali	CHWAKA PHCU	C/PSYCHOLOGIST	0778588383	24/1/2022
313	Ali Khamis Haji	CHWAKA	H/B	0779857180	24/1/2022
314	Khamis Issa Abeid	CHWAKA PHCU	DENTAL	0773884078	24/1/2022
315	Yussuf Ali Seif	CHWAKA PHCU	G/N	0772264653	24/1/2022
316	Mwadua Haji Juma	CHWAKA PHCU	N/O	0777118955	24/1/2022
317	Maryam MhamedAboud	CHWAKA PHCU	G/N	0777030277	24/1/2022
318	Amina H Pandu	DHMT KATI	DMO	0778875008	24/1/2022
319	Salma B Mohamed	DHMT KATI	DMO	0777487280	24/1/2022
320	Hassan Mohamed Hassan	MTENDE PHCU	SN/PSYCHIATRY	0777907677	25/1/2022
321	Amina Abas Nassor	MTENDE PHCU	PHNB	0773171173	25/1/2022

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323	Ali VuaiNahodha	MKIMBEWA SHEHA	M/SHEHA	0778211296	25/1/2022
324	Semeni Hamada Sima	MTENDE	K/SHEHA	0779918187	25/1/2022
325	Salma Omar Mohamed	KIZIMKAZI	C/O	0774573575	25/1/2022
		MKUNGUNI PHCU			
326	Bakar Hassan Jongo	KIZIMKAZI	NURSE	0776534166	25/1/2022
		MKUNGUNI			
327	KazijaMzia Hassan	KIZIMKAZI	ORDALY	0776312571	25/1/2022
		MKUNGUNI			0= // /0000
328	Mwanajuma Abdul Abeid	K/SHEHA		0777869576	25/1/2022
220		K/MKUNGUNI		0774602642	25 (4 (2222
329	MwachumShaka	SHEHA K/M	6.10	0774693613	25/1/2022
330	Khatib D. Abdalla	KAJENGWA	C/O	PAJE	25/1/2022
331	Ruwaida A Jecha	KAJENGWA	EHO	KIZIMKAZI	25/1/2022
332	Zaituni P Raiah	VA IENICIA/A	SHEHA	DUMBANI KAJENGWA	25 /1 /2022
	Zaituni B Rajab Fatuma Pea Makame	KAJENGWA KAJENGWA			25/1/2022
333 334	Ali Abau Haji	KAJENGWA	MJUMBE H/ODALY	KAJENGWA MAJENZI	25/1/2022 25/1/2022
335	Zainab Kadh Haji	KAJENGWA	H/ODALY	MELINNE	25/1/2022
336	Issa Suleiman Haji	KAJENGWA	MJUMBE	KAJENGWA	25/1/2022
337	Asha Khamis Ali	KAJENGWA	G/N	FUONI	25/1/2022
338	Marsher Suleiman	MUUNGONI	C/O	0675929590	25/1/2022
339	MwanaliVuai Abdalla	MUUNGONI	PHARM/TECH	0710051829	25/1/2022
340	Talha Mohamed Ibrahim	MUUNGONI	EHO	0718927182	25/1/2022
341	Lailat Mzee Khamis	MUUNGONI	SOCIAL WORK	0777485085	25/1/2022
342	Fatma Amour Khamis	MUUNGONI	G/NURSE	0777498061	25/1/2022
343	Omar Ali Omar	MUUNGONI	ODAL	0712354891	25/1/2022
344	Khalid Saleh Abrahaman	MUUNGONI	G/NURSE	0776906403	25/1/2022
345	Simai Haji Omar	MUUNGONI	JUMBE SHEHA	0777879857	25/1/2022
346	Hassan Rajab Mujadam	MUUNGONI	SHEHA	0775408057	25/1/2022
347	Ramadhan Haji Omar	MUUNGONI	MJUMBE SHEHA	0773260831	25/1/2022
348	Kisua Ramadhan Juma	MUUNGONI	MJUMBE SHEHA	0773657155	25/1/2022
349	Joseph J Kilango	MOLHD	P/S	0777410741	26/1/2022
350	Yussus Amour Ali	MOLHD	DPPR	0771044822	26/1/2022
351	Shaaban H Haji	MOICT	DAHR	0715422409	26/1/2022
352	Khatib M Khatib	MOICT	Ag PS	0777412369	26/1/2022
353	Samira A Mohamed	MOICT	CIVIL ENGINEER	0776417400	26/1/2022
354	Noah S Said	MANRL	DHR	0788750114	26/1/2022
355	Talha M Ali	PRIVATE ENG	CIVIL ENGINEER	0777417847	26/1/2022
356	Salma Mgeni	FUONI PHCU	R/N	0777422133	26/1/2022
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358	YussufJumaMtumwa	URUSI	SHEHA	0779158362	26/1/2022
359	Suleiman Ali Makame	URUSI	MJUMBE	0776470372	26/1/2022
360	AboudHamdonZubeir	URUSI	MJUMBE	0772272352	26/1/2022
361	Omar Said Sanane	URUSI	MJUMBE	0777451137	26/1/2022
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363	Said H Mohamed	DOURP/COLA	DEU	0777564330	27/1/2022
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267	Al: Al: One an	WILLO		0750051653	21 /1 /2022
367	Ali Ali Omar	WHO	TECH OFFICER OD	0759851653	31/1/2022
368	Amina Kheri	UNFPA	PROJECT ANALYST	0758777838	31/1/2022
369	SudiKudra MP	TANZANIA RED	COORDINATOR	0653350307	31/1/2022
		CROSS			
370	Khamis NMazina	ANGOZA	EXECUTIVE MEMBER	0773658881	31/1/2022
370	Fatma Ussi Yahya	ZANA EXECUTIVE	DISTRICT EXECUTIVE	0777861659	31/1/2022
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371	Adil Mohamed Ali	ZANAB	MRATIBU	0777456210	31/1/2022
372	Rashid M Shamsi	DC-KUSINI	DC	0777465785	31/1/2022
373	Marina J Thomas	DC-KATI		0778429170	31/1/2022
374	Suluhu R Wakili	ZAPHAT	COUNSELOR	0776301616	31/1/2022

Annex II: Environmental and Social Checklist Form

Table 11: Environmental and Social Checklist Form

Potential Negative Environmental and Social Impacts	Tick if relevant	Mitigation Measure	Tick if relevant	Responsible Person
Before Construction				
Possible damage to cultural property		Carry out EIA		
Possible damage to natural habitats/sensitive or protected area; damage/loss of important biodiversity		Carry out EIA		
Landslides and soil erosion on hillsides		Terracing; excavation to level; control of water flows		
Water stagnation and flooding on depressed/flat land		Proper placement of the building within a site, taking into consideration the topography and terrain to allow natural water flows.		
Destruction of vegetation during excavation; may cause loss of biodiversity, flora and fauna		Construction contracts to include provisions for limiting vegetative removal and for restoration /landscaping and revegetation of the construction area after completion of works.		
Soil erosion, deposition of fine materials (sand, silts, cement dust) in downstream water courses during demolition and construction, particularly in the rainy season		Construction contracts will require re-vegetate as soon as possible; contractors to be limited regarding activities that can be carried out in the rainy season; contractors will be required to treat excavated areas below flood water levels as required under the design contract (use of stone		

Potential Negative Environmental and Social Impacts	Tick if relevant	Mitigation Measure	Tick if relevant	Responsible Person
		gabions, before the start of each rainy season. Controlled storage of demolished materials and products (on stabilized area) and rehabilitation of sites after use		
Traffic disruption		Best engineering practices to be employed to ensure traffic disruptions are kept to a minimum		
Noise disturbance		Keep noise at minimum levels		
Nuisance on public health due to unsafe disposal of wastes		Dispose safely in sealed plastic containers for burial in municipal landfills		
Dust impacts		In extreme cases, particularly near clinics, schools, contractors will be required to moisten the construction area to minimize dust		
Pit formation from sand mine		Use sand from existing borrow pits; backfill pits		
During Construction				
Noise		Use of ear protectors		
Create dust to nearby houses during construction		Control fugitive dust generated from construction works by spraying water or other means		
Pressures on existing water sources		Liaise with local utilities to ensure adequate water supply		
Soil and water pollution due to large number of laborers on the construction site and related wastes Creation of stagnant		Build latrines and ensure adequate waste water disposal; ensure safe storage of construction materials such as oils, paints Rehabilitation of borrow		
pools of water in left borrow pits		pits sites		

Potential Negative Environmental and Social Impacts	Tick if relevant	Mitigation Measure	Tick if relevant	Responsible Person
After Construction				
Soil and water pollution due to remainder of construction wastes, tools, equipment, and temporary infrastructure		Contractors to clear construction site of temporary infrastructures and restore vegetation of the site		
Increased sediments into streams, ponds and rivers due to erosion from inadequate backfilling and resurfacing		Prevention of erosion by re-vegetation, dry construction and physical stabilization; use of debris in construction of foundation/compaction of fill-in pits found in the area.		
Erosion along banks of storm water drainage channel causing siltation of channel, loss of land and damage to physical infrastructure		Stabilize sections of bank susceptible to erosion; plant shrubs and trees on uphill side of ditch to slow water runoff		
Soil and water pollution due to seepage from septic tanks/blockage of sewer		Ensure regular emptying/unblocking, maintenance and monitoring; conduct hygiene education campaign to raise awareness of the health risks of exposed sewage; establish and support affordable pump out services		
Contamination of water supply sources (well, borehole) by seepage from pit latrines		Do not construct latrines within a minimum of 30m of the hand dug well, borehole and springs, 60m is preferable		
Latrines overflowing and creating health risks through people and animals coming in contact with human wastes		Conduct hygiene education campaign to raise awareness of the health risks of exposed human waste and promote the support and		

Potential Negative Environmental and Social Impacts	Tick if relevant	Mitigation Measure	Tick if relevant	Responsible Person
		use of municipal or private		
		sector cleaning services		
Open defecation		Conduct hygiene education campaign to		
		raise awareness of the		
		health risks of open		
		defecation, and promote		
		the use of latrines		
Haphazard disposal of		Provide adequate number		
solid waste		of waste collection bins at		
		appropriate places within		
		the buildings for sanitary		
		disposal; construct on site		
		collection points and liaise		
		with municipal for regular		
		disposal; Conduct hygiene		
		education campaign to		
		raise awareness of health		
		risks of indiscriminate		
		dumping of waste		
Health hazards due to		Use of easy-to clean		
improper sanitation and		surfaces, good		
unavailability of water		housekeeping, adequate		
		supply of water-storage		
		tanks/reservoir, boreholes, water		
		boreholes, water conservation measures,		
		rain water harvesting.		
		Availability of adequate		
		resources/funds to meet		
		running costs and regular		
		maintenance		
High running cost for		Energy savings measures:		
energy needs		use of low energy		
5,		consuming fluorescent,		
		proper use of daylight,		
		proper ventilation,		
		provide and maintain		
		stand-by generators		
Any other relevant				
impact				

Annex III: Environmental and Social Screening Form

Guidelines for Screening

The evaluator should undertake the assignment after;

- Gaining adequate knowledge of baseline information of the area
- Gaining knowledge of proposed project activities for the area
- Having been briefed/trained in environmental and social screening.

The form is to be completed with the consensus of at least three people, knowledgeable of the screening processes (such as the Environmental Management Officers)

Name of project:
Name of Institution:
Contact details of the person who is responsible for filling out this form
Name:
Title;
Telephone Number:
Fax number:
E-Mail address:
Date:
Signature:
1. Sub-Project Description
Please provide information on the type and scale of the project (project area, area of construction buildings access roads, and landscape), waste generated (solid, liquid and air).
2. The Natural Environment
a) Describe the vegetation/trees in/adjacent to the sub-project area.
b) Estimate and indicate where vegetation/trees might need to be cleared

c) Are there any environmentally sensitive areas or threatened species (specify below) that could be adversely affected by the project?
YesNo
i. Natural Forests Yes No
ii. National Parks Yes No
iii. Rivers Yes No
iv. Lakes Yes No
v. Wetlands (swamps, seasonally inundated areas)
YesNo
vi. Habitats of endangered species for which protection is required under Tanzania laws
and/or international agreements Yes No
vii. Others (describe). Yes No
3. River Ecology
Is there a possibility that, due to the installation of structures, such as houses and water system, the river ecology will be adversely affected? Attention should be paid to water quality and quantity, the nature, productivity and use of aquatic habitats and variations of these over time.
YesNo
4. Protected Areas
Does the sub-project area (or components of the sub-project) occur within/adjacent to any protected areas designated by government (national park, natural reserve, world heritage site etc.)?
YesNo
If the sub-project is outside, but close to, any protected area, is it likely to adversely affect the ecology within the protected areas (e.g. interference with the migration routes of mammals or birds)?
YesNo
5. Geology and Soils
Based upon visual inspection or available literature, are there areas of possible geologic or soil instability

(erosion prone, landslide prone, subsidence prone)?

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK FOR INVESTING IN PEOPLES' WELL-BEING FOR ECONOMIC DEVELOPMENT (IPW4ED)-PROJECT

Yes	No
Based on visual inspe soil leaching and/or	ection or available literature, are there areas that are at risk of a large-scale increase in erosion?
Yes	No
6. Landscape/aesthe	iics
Is there a possibility landscape?	that the sub-project will adversely affect the aesthetic attractiveness of the local
Yes	No
•	cies along feeder roads routes bely to result in the spread of invasive plant species (along feeder roads)?
Yes	NoNo
Based on and local	ological or cultural heritage sites knowledge available source, and after consultation with local authorities and/or the sub-project alter any historical, archaeological or cultural heritage sites or require e sites?
Yes	No
•	or Land Acquisition ttlement, land acquisition, or loss of access to land as defined by World Bank OP 4.12 oject implementation?
Yes	No
Will the sub-project infrastructure?	uit trees and Household Infrastructure result in the permanent or temporary loss of crops, fruit trees and household
1 €3	
11. Noise pollution d	uring construction and Operations
	oise level exceed the allowable decibel level for the zone?
measures according	have adverse impacts on natural habitats that will not have acceptable mitigation to OP 4.04 Natural Habitats?
Yes	No

13. Public Consultation Process	
took place, who participated ar contributions from the particip in decision making, (use separa	consultation process in terms of when consultations took place, where they and what criteria were used to select participants in this process that were the ants, was it recorded and were the contributions from participants included ate sheet if necessary).
	participatory process described in 13 above involve the following social,
Women: Yes	No
The elderly: Yes	No
Widows/widowers: yes	No
Orphans: Yes	No
15. Will the groups (in 14 abov	e) have access to and benefit from this sub-project?
Yes	No

Annex IV: Code of conduct for contractors on Environmental and Social Specifications

Code of conduct for Contractors¹ on E&S Specifications

AIM OF THIS DOCUMENT

This document aims to present a comprehensive set of specifications to be followed by Contractors in the implementation of subprojects under investing in peoples' well-being for economic development (IPW4ED) Project.

GENERAL

In order to prevent harm and nuisances on local communities, and to minimize the impacts on the environment during construction of sub-projects under IPW4ED Project, phase II, the Contractor and his employees shall adhere to the mitigation measures set down in:

- ESIA
- Site Specific ESMP
- The specifications, procedures, and best practices included in this Annex. These specifications complement any technical specifications included in the work quantities and the requirements of 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 Site Specific Environmental and Social Management Plans prepared for the project. Before initiation of construction activities, the Contractor shall present to 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 PCU construction activities can proceed.

Workforce and Site Installation Management Plan

¹ The Contractor will have to follow the World Bank Group General Environmental, Health and Safety Guidelines as well as well as applicable laws of Tanzania. List of OHS legislation can be taken from https://www.osha.go.tz/page/laws-and-regulations

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 laws the Contractor is required to ensure compliance with national labor and employment laws for his workers. The Contractor shall take the following steps to maximize to use of the local labor:

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

Code of Conduct

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

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

- All of the workforce shall abide by the laws and regulations of 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 preexisting marriage.

Any construction 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 standards² on how many workers are allowed in one room, what minimum space required per person, type of beds, cooking arrangements etc.

² Like Workers' accommodation: processes and standards A guidance note by IFC and the EBRD and https://www.ebrd.com/downloads/about/sustainability/Workers accommodation.pdf

- 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:
 - Where female workers are employed, there shall be at least one latrine for every 25 females or part thereof.
 - Where males are employed, there shall be at least one latrine for every 25 males or part thereof.

- Every latrine shall be under cover and so partitioned off as to secure privacy, and shall have a proper door and fastenings.
- Where workers of both sexes are employed, each latrine or urinal must be lockable from inside, and outside of each block there must be a notice in the language understood by the majority of the workers "For Men" or "For Women" as the case may be.
- The latrines and urinals shall be adequately lighted and shall be maintained in a clean sanitary condition at all times and
- 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 construction 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 construction 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 construction 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 and dust;
- Traffic and movement over stabilized areas shall be restricted and controlled, and damage to stabilized areas shall be repaired and maintained to the satisfaction of the Supervision engineer/Consultant.

Earthworks, Cut and Fill Slopes

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

- The Contractor shall maintain stable cut and fill slopes at all times and cause the least possible disturbance to areas outside the prescribed limits of the works;
- In order to protect any cut or fill slopes from erosion, in accordance with the drawings, cut off drains
 and toe-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 revegetation 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/demolition/construction -generated debris should be removed from the site.

Demolition of Existing Infrastructures

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

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

Dust Control

- The Contractor shall ensure that the generation of dust is minimized and shall implement a dust control program to maintain a safe working environment, minimize nuisance for surrounding residential areas/dwellings and protect damage to natural vegetation, crops, etc.;
- Construction vehicles shall comply with speed limits and haul distances shall be minimized;
- Material loads shall be suitably covered and secured during transportation;

- Exposed soil and material stockpiles shall be protected against wind erosion and the location of stockpiles shall take into consideration the prevailing wind directions and locations of sensitive receptors;
- 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 neighborhoods, hospitals, rest homes, schools, etc.) stricter 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 behaviourwith 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. 2015³.

Hazardous and Chemical Substances

³https://www.osha.go.tz/storage/publications/LawsRegulations/sw1496149205-BUILDING%20AND%20CONSTRUCTION%20RULES,%202015.pdf

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

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, steel-toed 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

Contractors will be required to include 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 IPW4ED 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 behavior with respect to 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.