

**ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT [ESIA] FOR THE
PROPOSED CONSTRUCTION OF GRAIN AND FRUIT MARKET PLOT NO
1348/8, BLOCK 'S' OLD AIRPORT, IYELA WARD, AND IMPROVEMENT OF
SOWETO MARKETS PLOT NO 1037, 1038 & 1039 BLOCK 'Q' MWANJELWA
AREA, RUANDA WARD, AND SOKOMATOLA MARKETS PLOT NO
MARKET, BLOCK 22 SOKOMATOLA AREA, MAENDELEO WARD, IN
MBEYA CITY -MBEYA REGION**



**THE UNITED REPUBLIC OF TANZANIA
PRESIDENT'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT
MBEYA CITY COUNCIL
P.O.BOX 149
MBEYA**

**Submitted To
THE NATIONAL ENVIRONMENT MANAGEMENT COUNCIL (NEMC),
REGENT ESTATE PLOT NO. 29/30,
P.O. BOX 63154 DAR ES SALAAM, TANZANIA.
TEL: +255 22 2774852/4889
FAX: +255 22 2774901.
EMAIL: dg@nemc.or.tz**

Submitted By

ISO 9001:2015 CERTIFIED
**CONSULTING ENGINEERS AND PLANNERS
P.O BOX 2820
DAR ES SALAAM, TANZANIA
TEL: +255 22 278 0183/0742
FAX: +255 22 278 1194
EMAIL: admin@norplan.co.tz**

SUBMISSION DATE: 08th JUNE 2023

EXECUTIVE SUMMARY

TITLE: ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT [ESIA] FOR THE PROPOSED CONSTRUCTION OF GRAIN AND FRUIT MARKET PLOT NO 1348/8, BLOCK 'S' OLD AIRPORT, IYELA WARD, AND IMPROVEMENT OF SOWETO MARKETS PLOT NO 1037, 1038 & 1039 BLOCK 'Q' MWANJELWA AREA, RUANDA WARD, AND SOKOMATOLA MARKETS PLOT NO MARKET, BLOCK 22 SOKOMATOLA AREA, MAENDELEO WARD, IN MBEYA CITY -MBEYA REGION

PROPONENT

THE UNITED REPUBLIC OF TANZANIA,
PRESIDENT'S OFFICE,
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT
MBEYA CITY COUNCIL,
P.O.BOX 149,
MBEYA.

CONSULTANT

NORPLAN TANZANIA LIMITED
P.O BOX 2820,
DAR ES SALAAM, TANZANIA
TEL: +255 22 278 0183/0742
FAX: +255 22 278 1194
EMAIL: ADMIN@NORPLAN.CO.TZ

I. Background

The Government of the United Republic of Tanzania through The President's Office - Regional Administration and Local Development (PO-RALG) has received a credit from the World Bank towards in implementing projects-financed Tanzania Cities Transforming Infrastructure and Competitiveness Project (TACTIC), which will be, implemented through the President's Office - Regional Administration and Local Development (PO-RALG).

NORPLAN Tanzania Ltd was awarded the contract by PO-RALG to conduct; Feasibility Study, Urban Design, Detailed Engineering Design, Environmental and Social Due Diligence, Preparation of Cost Estimates and Bidding Documents for Urban Infrastructure Investments for Mbeya City Council

The proposed project involves Construction of Grain and Fruit Market at Old Airport for the purposes of improving service to Central bus terminal and Daladala bus stop as well as community in Iyela and Ruanda wards. The intervention will create Job opportunity for the local communities; create Revenue generation for city and Central Government and Proper storage/handling of vegetables, fruits and fresh fish within the city.

Improvement of markets at Soweto and Sokomatola aims to build a state-of-the-art by upgrading supportive infrastructure and utilities at the markets catering 2,000 traders (80% women's) at Soweto and 800 traders at Sokomatola. The proposed constructions shall reduce the markets' congestions and provide better facilities to both traders and consumers. The proposed infrastructure development will combat critical operational issues facing the markets that include lack of proper sanitary facilities, lack of storage room, poor solid and liquid waste management, inadequate parking space for trucks and cars, and poor supply of clean and safe water for drinking, cleaning and washing.

Proposed infrastructure for markets' development will be main centres for all fresh, dried and processed agricultural/livestock products from Mbeya region, services will include:

- Fresh products will be sold using stalls;
- Dried products will be packaged and sold in defined shops;
- Packaged processed goods may be refrigerated depending on the nature of the product;
- Selling of agricultural produce, fresh and dried i.e. maize, rice, beans/peas, wheat, sorghum millet etc.
- Selling of processed produce including sunflower oil, dairy milk, cheese, beef etc.
- Fresh and processed fruits including Oranges, bananas, mangoes, avocado, cocoa, coffee, peaches, and plums. etc.
- Vegetables will include both fresh and dried.

II. Requirements for an ESIA

This Project falls under the list of projects requiring EIA pursuant to the First Schedule made under Regulation 6(1) of the Environmental Impacts Assessment and Audit Regulations, 2005 and Regulation 17 of its amendments of 2018.

The World Bank also requires that all environmental and social risks and impacts of the project be addressed as part of the environmental and social assessment conducted in accordance with ESS1. ESS2–10 set out the obligations of the Borrower (GoT) in identifying and addressing environmental and social risks and impacts that may require particular attention.

III. Approach and Methodology

The ESIA methodology was subject to the EIA procedures of Tanzania as per Environmental Impacts Assessment and Audit Regulations, 2005 and Regulation 17 of its amendments of 2018:

IV. Recommendations of the Study

- The study recommends that the Design Consultant shall incorporate ESIA mitigations into the design and budget of the Mbeya urban infrastructure market Construction and Improvement of Soweto and Sokomatola markets and
- Full adherence to the ESMP is a requirement for successful risk management for this project.

V. Key Components of the proposed markets

Key components of the proposed market construction projects are Grains section, Shops, storage areas, circulation section, Day-care Nursing, Office, Social gathering area, ATM, Assembly point and sanitary facilities.

VI. Project Schedule and Life

Site preparation for the proposed Construction of Grain and Fruit Market at Old airport and Improvement of Soweto and Sokomatola Markets are expected to start soon after approval of all related studies, engineering designs, environmental clearance, and construction tender award in early 2022. The project life is expected to be 50 years.

VII. Estimated Project Cost

The proposed Construction of Grain and Fruit Market at Old airport is estimated to cost approximately 9,450,120,220.06, Improvement of Sokomatola market 4,579,750,625.10 and for Soweto market is approximate to 9,868,391,522.67 TShs (VAT Inc.) This includes the cost for construction, purchasing materials, labor cost and all miscellaneous expenses

subjected in the implementation of the project. The Tanzanian government through loan from World Bank and other Development Partners funds the project.

VIII. Project Cycle

Project planning phase

During planning phase, the project design co-parties include Mbeya Region Secretariat, Mbeya city council, environmental authorities and other planning organizations, local residents/communities along the proposed construction subprojects, traders, farmers and various NGOs. Extensive interaction is important during preliminary engineering planning in particular, since the most important basic subprojects' solutions are decided in this phase.

Final engineering planning determines the precise location of the proposed subprojects, areas required for the markets, intersections of the proposed infrastructure and other connections, solutions for solid waste collection and disposal mechanism, waste water management, fire hazards, water supply and other detailed solutions such as measures necessary for lamp for disable people in the market

- i. Evaluation of project concepts and alternatives selection,
- ii. Design of all project components,
- iii. Topographic survey
- iv. Geo-technical Investigations;
- v. Soils and Materials Investigations;
- vi. Carrying out ESIA of the project,
- vii. Tendering for construction works,
- viii. Approval of Engineering designs and Environmental Certification Project Mobilization & Construction Phase

The mobilization and construction phase will take place subsequent to the issuing of Environmental Impact Assessment Certificate and once a construction contract with a suitable contractor is signed. The construction phase is expected to be approximately 18- 24 months for Markets subprojects.

Project Mobilization and Construction phase

During the construction phase, both skilled and unskilled temporary employment opportunities will be created. It is difficult to specify the actual number of employment opportunities that will be created at this stage; however approximately 150 direct and more than 250 indirect employment opportunities are expected to be created during construction phase

It should however be noted that employment during the construction phase will be temporary, whilst very few long-term employments during the operational phase.

Below is a summary of activities during mobilization and construction phase of the proposed project;

- i. Acquisition of materials from approved sources and storage
- ii. Testing of the construction materials
- iii. Acquisition of other permits such as water use permits
- iv. Confirmation of data and accuracy of topographical survey
- v. Mobilization of labour force, equipment and plant for construction works
- vi. Relocation of utilities,
- vii. Earthworks
- viii. Material transportation and storage

- ix. Abstraction and transportation of water to the construction site
- x. Collection, storage, transportation, treatment and disposal of wastes generated from construction activities
- xi. Actual construction works
- xii. Occupational health and safety management
- xiii. Landscaping and environmental restoration.

Project Operation Phase

Once the construction phase is completed, the markets will start to operate to serve the intended purposes. The activities that are expected to be executed during operational phase include:

- i. Delivery of commodities to the markets and selling;
- ii. Solid waste management
- iii. Wastewater management; and
- iv. Utilities maintenance

Project Decommissioning Phase

As construction progresses towards the end, demobilization phase will begin. Demobilization will be done for proper restoration of the site after completion of construction activities such as removing/spreading topsoils piled around the markets' areas, removing all temporary structures, other activities shall include clearance of all sorts of wastes including used oil, sewage, solid wastes (plastics, wood, metal, papers, etc.).

IX. Sources for Construction Materials

Quarry and borrow pit sites for the project's construction materials are within the project's city. Three areas that are potential for sand extractions which are Iduda and Mwasanga have been identified.

Aggregates will be sourced from Ingula Pipeline and Mswiswi (Tazara quarry) borrow pits for fill and sub base materials are Isanga/ Iganzo and Igawilo sites.

X. Water Supply

Water for construction and maintenance of the Construction of Grain and Fruit Market at Old airport and improvement of Soweto and Sokomatola markets shall be drawn from streams along some of the roads such as Nzovwe, Mbata and Ilolo that are all located within the city. Alternative suitable sources i.e. Boreholes will be determined based on demand and location/distance from the markets section under construction

XI. Power Supply for the Project

Power supply for the proposed project's construction activities will be provided by TANESCO and generators for per-forming hot works, lighting etc. During operation phase of the Markets, the project ancillaries might be use solar power or connected with TANESCO power lines where necessary.

XII. Required Permits

Prior to the approval of the construction and eventual construction of the Project, it is necessary to obtain a number of authorizations and permits from local and central government authorities of Tanzania as indicated below

Table E-1: Required Permits from Regulatory Authorities

XIII. Policy, Legal & Administrative Framework Sever al relev	Permit/Authorization	Issuing Authority	Description
	EIA Certificate	NEMC/VPO	Approval of project implementation
	TTCL Infrastructure Relocation Approval	TTCL-Regional Office	To waive construction of the proposed markets
	TANESCO Infrastructure Relocation Approval	TANESCO-Regional Office	To waive construction of the proposed markets
	MBY-UWASA Infrastructure Relocation Approval	MBY-UWASA-Regional Office	Installation of Water system
Water Use and Discharge permit		Lake Rukwa Basin	To allow abstraction of Water from streams and rivers within the city

ant policies and legal documents have been reviewed to ensure that Propose Construction of grains and fruits market at old airport and Improvement of Soweto and Sokomatola Market projects Meets policy and legislative criteria.

World Bank Policies

World Bank's Environmental and Social Framework and its components [Vision for Sustainable Development, World Bank Environmental and Social Policy for Investment Project Financing, and Environmental and Social Standards].

National Policies:

National Environment Policy 1997, National Employment Policy 2008, National Land Policy, 1997, The Construction Industry Policy 2003, National Mineral Policy 2009, Human Settlement Development Policy 2000, National Water Policy 2002, National Forest Policy 1998, National Agriculture Policy 2013, Agriculture and Livestock Policy 1997, National Action Plan to end Violence against Women and Children (2017/18-2021/22), Policy on HIV/AIDS Policy 2001, National Energy Policy 2015, Women and Gender Development Policy 2000

Legal Framework:

Environmental Management Act (2004) as amended in 2016 and 2021, Road Act (2007), Energy and Water Utilities Authority (EWURA) Act (2002), Water Resources Management Act No 11 of (2009), Mining Act 2019, Occupational Health and Safety Act (2003), HIV and AIDS (Prevention and Control) Act No. 28/08 (2008), Local Government Laws (Miscellaneous Amendments), No. 13 (2006), The Village Land Act (2019), (Identifying Considerations for Women), Land Act Cap 113 of 2019, Forestry Act No. 14 (2002), The Standards Act No. 2 of 2009, Land Acquisition Act Cap 118 2019, Contractors Registration Act (2003), Engineers Registration Act 1997 (Amendments 2007), Employment and Labor Relations Act (2004), Urban Planning Act (2007), The Workers Compensation CAPS 263 R.E 2015. The Sexual Offenses Special Provisions Act 1998, Law of Marriage Act, CAP 29 2019, Law of the Child Act CAP 13 2019, Land Use Planning Act (2007), The Environmental Management (Hazardous Control and Management) Regulation 2021, The Standards Act, 2009, The Employment and Labor Relations Act Cap 366 R.E 2019, The Environmental Management (Quality Standards for Control of Noise and Vibration Pollution) Regulations,

2014, The Environmental Management (Soil Quality Standards) Regulations, 2007, The Environmental Management (Air Quality Standards) Regulations, 2007, The Environmental Management (Water Quality Standards) Regulations, 2007, The Environmental (Registration of Environmental Experts) Regulations, 2021, The Environmental (Solid Waste Management) Regulations, 2009 as amended in 2016

XIV. Findings

Sensitivity Screening

The proposed project areas for market construction does not fall within any threatened ecosystem, National Protected Areas, Focus Areas or areas of conservation planning.

Climatic condition

Construction and Improvement of markets and operation are expected to increase an average daily traffic which will automatically have significant impact on the climate of the area. Climate change might result in heavy rainfall and extreme temperature increase which can destroy the market structure and hinder business opportunities in future only if climate change adaptation measures are not taken into consideration on the design and construction of the proposed subprojects.

Air Quality

From the measured data to define the market air quality baseline conditions, it can be concluded that the main sources of air pollution at the moment in the project area are stationary sources i.e. Vehicles, Bodaboda and other ongoing commercial activities near the market area and fugitive emissions from households in the settlements burning wood for heating.

Wind Speed & Direction

The average hourly wind speed in Mbeya experiences significant seasonal variation over the course of the year. The windier part of the year lasts for 7.3 months, from April 18 to November 28, with average wind speeds of more than 6.1 miles per hour. The windiest month of the year in Mbeya is September, with an average hourly wind speed of 8.1 miles per hour. The calmer time of year lasts for 4.7 months, from November 28 to April 18. The calmest month of the year in Mbeya is February, with an average hourly wind speed of 4.1 miles per hour. The wind is most often from the south for 1.6 months, from May 28 to July 17, with a peak percentage of 56% on June 18. An increase in maximum wind during project operation might lead to an increase in respiratory infection hence safety measures should be observed during July to May.

Clouds and Humidity

During operation of market the humidity rise may result to discomfort of the workers and reduce the period of construction, it is also affected during operation phase the humidity may affected the markets produce and likely to lead to economic loss. The cloudiest month of the year in Mbeya is January, during which on average the sky is overcast or mostly cloudy 90% of the time. Precautions should be made to construction workers and design of the market during operation phase.

Noise & Vibration

It is anticipated that the night and evening noise levels will be even lower, considering the low density of population of the market at old airport, except for Soweto and Sokomatola market are in commercial and congested areas, the low frequency of vehicles during night hours at

old airport and the fact that population mainly works in day time only for business.

Gender (including Gender Based Violence)

Gender-based violence is widespread and common in Tanzania. Data shows that 40% of women and girls in Tanzania aged 15-49 have experienced physical violence and 17% sexual violence in their lifetime. A violence against children survey found that 27.9% of girls had experienced sexual violence before their 18th birthday. Mbeya Region ranked third highest among the 30 regions in Tanzania in HIV prevalence at 11.0 % among females and 6.7 % among males. The region also ranked third highest in prevalence of IPV. Sixty-seven % of ever-married women aged 15–49 years reported that they had ever experienced violence from a partner in comparison to the national prevalence of 50.2 percent

Regional per Capital GDP

The economy of Mbeya Region is based on agriculture, livestock keeping, bee keeping, commerce and manufacturing. Other economic activities and potentials include mining and tourism. In 2018, Mbeya Regional Gross Domestic Product (GDP) was about TZS 7.31 trillion and per capita income was TZS 3,506,101. The region contributed 5.65% of the national income (GDP) ranking fourth nation-wide after Dar-es-Salaam, Mwanza and Shinyanga regions

Access to Clean and Safe Water and Sanitation

Generally, water used by Mbeya city along the upgrading roads in Mbeya city and Drains system are mostly depend on the MBY-UWASA, part of the Drainage has a natural water system that are accessible by the community and claimed to be clean and used for domestic purposes

Health Services

The accessibility to health facilities in the project area is good since most of the proposed and markets are within urban city and accessible to dispensary and health facilities.

Diseases & HIV/AIDS Prevalence

Disease's prevalence in Mbeya City includes Malaria, Diarrhea, and respiratory infection including Covid-19 infections. Moreover, the Covid-19 is term as potential risk for the project during construction phase. With respect to HIV/AIDS infection the rate is high at 9.3%.

Waste Management & Disposal

In the project area solid waste management practices involve collection of solid wastes and disposal to Nsalga Landfill located along TANZAM road.

Liquid waste management is practiced through onsite disposal septic and soaks away.

XV. Stakeholders Engagement

Stakeholders Identification

The main stakeholders for Proposed Construction and Improvements of Soweto and Sokomatola markets includes; Regional Secretariat of Mbeya City (RAS), Mbeya City Director, TTCL-Mbeya Regional Office, lake Rukwa Basin Basin (MoW)-, TANESCO, Iyela, Ruanda and Maendeleo Ward.

Major Issues Raised by Stakeholders

The stakeholders in the project area raised the following issues which have also been

incorporated in the proposed design and the project's environmental and social management plan (ESMP)

1. Temporary Relocation of the Market Business to Allow Construction; Traders will be required to leave their usual business areas to a temporally place to allow construction of the markets, for Sokomatola will be allocated to Uwanja wa Ngoma and for Soweto is UMATI area, temporary places must be prepared, should be safe and in good conditions for their goods, Market stakeholders should be constantly updated and informed on the proceeding of the market construction.

2. Market Construction Design; The design should be modern with the quality and the capacity , infrastructures should be inclusive to accommodate people with special needs like the disabled, children and old people, firefighting and rescue facilities, building market section for each specific goods with specific facilities, the market floors should be cemented, designing of effective drainages and sewage waste systems, enough toilets, the present six toilets are not enough to accommodate all users, Should have cold room for Sokomatola, Baby care place and special toilet and room for women both markets parking areas for customers and trucks , Mostly they don't want flats/storey building. They prefer solar lights during operation phase because TANESCO is expensive.

3. Dust Production and Noisy Construction: Dust production, noise from moving construction equipment/machines is inherent to all market construction works. The contractor must have means to suppress the dust, reduce the level of noise and provide early notification to the communities about the proper time of construction.

XVI. Identification Methods for Project Impacts

Matrices (Activities-Environment Interactions)

Interactions between the project activities and the environment were identified for each stage of the project, by using a matrix as indicated on subsection 6.2.1

XVII. Identified Project's Negative Impacts

Climate

Impacts on the microclimate and meteorology of the local area will be negligible since there will be main changes in surface reflection and aerodynamic disturbances.

Air Pollution

Traffic jams that may occur during construction considered as indirect source of emissions in the air especially at urban areas of Soweto and Sokomatola Markets. This negative impact have been estimated as temporary with moderate size.

Noise & Vibration

Construction of the market will cause noise and vibration during the construction phase. It is expected that the impacts from vibrations will be insignificant, mostly localized, at the construction sites and limited to the local workers as well as the local species.

Impact on Soil Structure/Topography

The soil may be polluted by inappropriate storing, handling and depositing of waste, as well as by potential leakage of oils during the construction activities.

The impact during the construction phase on soil pollution has been assessed as negative with insignificant size and of temporary character.

Impact on Employment

It is expected the construction phase will create employment opportunities and will have a medium magnitude.

Occupational Health & Safety Impacts

In order to avoid and prevent potential adverse impact on the local communities caused by workforce influx, there will be low occurrence of off-site accommodation, i.e within the communities. The Market project shall not require construction camp for workers as most of the projects are within the urban areas.

XVIII. Environmental and Social Management Plan (ESMP)

The proposed mitigation measures provide the basis for the development of environmental management plan and monitoring plan for the Project, required to meet World Bank's and NEMC environmental approval and permitting requirements as indicated on tables 7-1 & 8-1 of the main report.

XIX. Summary and Conclusion

The proposed project has undergone ESIA study as legal requirement under the National Environmental Management Act, 2004 as well as World Bank's requirement as stipulated in ESS1 of the Environmental and Social Framework, 2018.

Environmental and Social Impact Assessment study was conducted from 26th December -5th January 2022 which involved collection of baseline information including secondary data, engagement of communities at the respective areas of the market i.e. Iyela, Ruanda and Maendeleo Wards, impacts identification, impacts evaluation and preparation of Environmental and Social Management Plan.

Impacts identified include various categories; physical, biological, social, economic and climate change risks. Evaluation of impacts indicates low magnitude on physical and biological negative impacts. Positive economic impacts are anticipated to be of medium magnitude. Evaluation of climate change vulnerability risks indicates medium impacts only if climate adaptation measures will not be taken into account in the design.



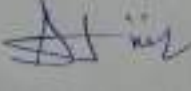



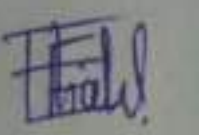
Among the proposed measures includes, safety markings and signs in the design markets design to withstand climate change scenarios, provision of water drainage structures with capacities to allow free flow of runoff from either side of the market building, safety and health trainings to the workers

As described in chapter 4 of this report, trends of climate change variables in the project area are varying from year to year, rain/precipitation, temperature and ultraviolet index are expected to increase in future, and functionality of the proposed construction of grain and fruit market at old airport and improvement of Soweto and Sokomatola market might be under threat of climate change.

It is, therefore, concluded that, implementation of the proposed subproject will not cause significant impacts provided that the recommended mitigation measures are adequately and timely put in place. The identified adverse impacts shall be managed through the proposed mitigation measures and monitoring schedules outlined.

ESIA Study Team

This Environmental and Social Impact Assessment report has been prepared by:

Name	Position	Signature
Eng. Nanai K Nanai NEMC/EIA/ 0086	Environmentalism and ESIA Team Leader/ Climate Change Expert	
Edward Maurice Gama NEMC/EIA/0253	Environmentalism (Assistant Team leader)	
Daniel Moller	Water Resources/ Hydrologist	
Musa Nyamsingwa	Project Manager	
Elton Maro	Industrial Engineer	
Jenina Mbaga	Sociologist	
Furaha Eliah	RAP Experts	

ACKNOWLEDGEMENT

(M/s PO-RALG) recognizes and appreciates the support and advices provided by Norplan Limited and stakeholders during this Environmental Assessment study. Although, it is difficult to mention each stakeholder who contributed to support, the institutions below deserve to be mentioned.

Firstly, we would like to appreciate and value cooperation from the project Wards in Iyela, Ruanda and Maendeleo Ward, Soweto and Sokomatola market leaders and majority the traders for their views, patience and time during consultation and involvement stages.

Lastly, we would like to extend our gratitude to all consulted stakeholders including NEMC, Mbeya-UWSA, Lake Rukwa Basin Water Board, TANESCO, TTCL, Mbeya City Council, RAS office, Institution (such as School and Church), that have contributed on completion the ESIA for the proposed construction of subprojects under TACTIC-3 in Mbeya City Council.

TABLE OF CONTENTS

1	INTRODUCTION.....	1
1.1	Project Background.....	1
1.2	Project Objective	1
1.3	Scope of Service	1
1.4	Requirements for an ESIA	2
1.5	Objectives of Environmental Impact Assessment.....	2
1.6	Approach and Methodology.....	3
1.7	Environmental Impact Assessment.....	3
1.8	Report Structure	4
2	PROJECT DESCRIPTION	6
2.1	Introduction.....	6
2.2	Project Location.....	6
2.3	Land ownership and status	7
2.3.1	Sokomatola market.....	7
2.3.2	Soweto Market	7
2.3.3	Grains and fruit market at old airport.....	7
2.4	Existing Condition of the Urban Markets	7
2.4.1	Construction of grains and fruit market at Old Airport	7
2.4.2	Improvement of Soweto Market	9
2.4.3	Improvement of Sokomatola Market	10
2.5	Project Design and Components	11
2.5.1	Construction of grains and fruit market at Old Airport.....	11
2.5.2	Improvement of Sokomatola and Soweto Markets	15
2.5.3	Proposed improvement of Soweto market structure	17
2.6	Design Considerations.....	19
2.6.1	Sanitation	19
2.6.2	Solid Waste Management	19
2.6.3	Management of Wastewater.....	19
2.6.4	Electricity Power Lines	19
2.6.5	Storm water management	20
2.7	Project Schedule and Life	20
2.8	Proposed Project Cycle	20
2.8.1	Project Planning Phase	20
2.8.2	Project Mobilization & Construction Phase.....	21
2.8.3	Project Operation Phase	22
2.8.4	Security, health and safety issues.....	22
2.9	Construction Materials	22
2.9.1	Gravel, Sand and Quarry Sites	22
2.9.2	Quarry site (aggregates).....	24
3	POLICY, LEGAL & ADMINISTRATIVE FRAMEWORK	26
3.1	Overview.....	26
3.2	World Bank's Environmental and Social Framework.....	26
3.2.1	Vision for Sustainable Development	26
3.2.2	World Bank Environmental and Social Policy for Investment Project Financing.....	27

3.2.3 World Bank Environmental and Social Standards (ESSs)	27
3.3 The World Bank ESH Guidelines.....	35
3.4 National Policies	36
3.4.1 National Environment Policy 2021	36
3.4.2 National Employment Policy 2008	36
3.4.3 National Land Policy, 1997.....	37
3.4.4 The Construction Industry Policy 2003.....	37
3.4.5 Human Settlement Development Policy 2000.....	38
3.4.6 National Water Policy 2002	38
3.4.7 Policy on HIV/AIDS Policy 2001	39
3.4.8 National Mineral Policy 2009.....	39
3.4.9 National Gender Development Policy 2000.....	39
3.4.10 National Transport Policy 2011	40
3.4.11 National Population Policy 2006	40
3.4.12 The National Investment Promotion Policy, 1996.....	40
3.4.13 The National Cultural Policy (1997).....	41
3.4.14 The Energy Policy of Tanzania (URT, 2015).....	41
3.4.15 Tanzania Development Vision (2025).....	41
3.4.16 The National Economic Empowerment Policy, 2004.....	41
3.4.17 The National Strategy for Growth and Reduction of Poverty (NSGRP) II (2015).....	42
3.4.18 The National Climate Change Strategy (NCCS) - 2012	42
3.5 Legal Framework.....	42
3.5.1 Environmental Management Act (2004) as amended in 2016 and 2021	42
3.5.2 Water Resources Management Act No 11 of (2009)	44
3.5.3 Occupational Health and Safety Act (2003).....	44
3.5.4 HIV and AIDS (Prevention and Control) Act No. 28/08 (2008)	45
3.5.5 The local Government (Urban Authorities) Act, 1982	46
3.5.6 Public Health Act of 2008	46
3.5.7 Land Act Cap 113 of 2019	46
3.5.8 Land Acquisition Act Cap 118 2019.....	47
3.5.9 Contractors Registration Act (2003).....	48
3.5.10 Engineers Registration Act 1997 (Amendments 2007).....	48
3.5.11 Employment and Labor Relations Act (2004)	49
3.5.12 Urban Planning Act (2007)	50
3.5.13 The Workers Compensation CAPS 263 R.E 2015.0.....	50
3.5.14 The Sexual Offences Special Provisions Act 1998.....	51
3.5.15 Law of Marriage Act, CAP 29 2019	52
3.5.16 Law of the Child Act CAP 13 2019,.....	52
3.5.17 Land Use Planning Act (2007)	52
3.5.18 The Companies Act, 2019	53
3.5.19 Water Supply and Sanitation Act, 2019	53
3.5.20 The Social Security Regulatory Authority Act, 2015.....	54
3.5.21 The Environmental Management (Hazardous Control and Management) Regulation 2021	54
3.5.22 The Employment and Labor Relations Act Cap 366 R.E 2019.....	54
3.5.23 The Environmental Management (Standards for the Control of Noise and Vibration Pollution) Regulations, 2014.....	54
3.5.24 The Environmental Management (Soil Quality Standards) Regulations, 2007.....	55
3.5.25 The Environmental Management (Air Quality Standards) Regulations, 2007.....	55
3.5.26 The Environmental Management (Water Quality Standards) Regulations, 2007.....	55
3.5.27 The Environmental (Registration of Environmental Experts) Regulations, 2021	55

3.5.28	The Urban Planning (Planning Space Standards) Regulations, 2018	56
3.5.29	The Urban Planning (Use Group and Use Classes) Regulations, 2018	56
3.5.30	The Environmental (Solid Waste Management) Regulations, 2009 as amended in 2016.	56
3.5.31	National Environmental Impact and Auditing Audit Regulation G.N No. 349 of 2005 as amended by G.N No. 474 of 2018	57
3.5.32	The Environmental Management (Fee and Charges) Regulations, 2021	57
3.6	Administrative Framework.....	57
4	BASELINE ENVIRONMENTAL CONDITIONS	61
4.1	Overview	61
4.2	Biophysical Environment	61
4.2.1	Location and Administration	61
4.2.2	Topography	62
4.2.3	Geology	62
4.2.4	Soil	63
4.2.5	Climate	64
4.2.6	Seismicity	73
4.2.7	Atmospheric conditions.....	74
4.2.8	Flora and Fauna.....	75
4.3	Socio-Economic and Cultural Conditions	79
4.3.1	Population Size and Distribution	79
4.3.2	Economic growth.....	81
4.3.3	Employment Status.....	81
4.3.4	Children Labor aged 5–13 years	82
4.3.5	Gender Based Violence (GBV).....	82
4.3.6	Ethnic Groups	82
4.3.7	Water Sources & Supply	83
4.3.8	Health.....	83
4.3.9	Land Use Planning	85
4.3.10	Road Network Classification	85
4.3.11	Agriculture.....	86
4.3.12	Crimes Cases.....	86
5	STAKEHOLDERS CONSULTATION AND PUBLIC PARTICIPATION 87	
5.1	Overview.....	87
5.2	Objectives of Public Consultations and Engagement	87
5.3	Subproject’s Levels of Public Engagement and Consultations	87
5.3.1	1st Round Stakeholders Engagement Methodology.....	88
5.4	Public Participation Process.....	88
5.4.1	Public Consultation and Engagement	90
5.5	Summary of major concerns raised by the stakeholders	102
6	ASSEMENT OF IMPACTS AND IDENTIFICATION OF ALTERNATIVE	103
6.1	Overview of chapter.....	103
6.2	Methodologies for Identification of Impacts.....	103
6.2.1	Matrix	103

6.2.2	Experts Knowledge	103
6.3	Identification of Impacts	103
6.3.1	Impacts' Generating Actions	104
6.3.2	Identification Methodologies for Project Impacts	104
6.4	Impacts Prediction & Evaluation	108
6.5	Impacts Analysis	112
6.5.1	The pre – construction phase	112
6.5.2	Impacts during Mobilization and Construction Phase	112
6.5.3	Impacts during Operation Phase	115
6.5.4	Decommissioning Phase	117
6.6	Project Alternatives	117
6.6.1	No Project Alternative	118
6.6.2	Alternative Relocation of Traders during Construction Phase	118
6.6.3	Alternative Site	119
6.6.4	Energy Alternative	119
6.6.5	Water Alternative	119
6.6.6	Collection, Treatment and disposal of Sewage	119
6.6.7	Solid Waste Management Alternatives	120
7	ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN.....	122
7.1	Overview of chapter	122
7.2	Objective and Components of the ESMP	122
7.3	Capacity Building & Training	122
7.4	Awareness and Education	123
7.5	Gender Based Violence and Sexual Exploitation Abuse/Sexual Harassment	123
7.5.1	Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) Response and Prevention Action Plan	123
7.5.2	Prevention and Mitigation of Gender Based Violence (GBV) at the community	124
7.6	The Management Plan	125
8	ENVIRONMENTAL MONITORING PLAN	144
8.1	Introduction	144
9	COST BENEFIT ANALYSIS OF THE PROJECT	149
9.1	Overview of chapter	149
9.2	Financial Cost Benefit Analysis	149
9.3	Development costs	149
9.4	Project revenue forecast	150
9.5	Community Benefits	155
9.6	Possible Costs to Communities	155
9.7	Environmental Cost Benefits Analysis	156
9.8	Social Economic Cost Benefits Analysis	156
10	. DECOMMISSIONING PLAN	157
10.1	Decommission Plan Overview	157
10.2	Reinstatement	157
10.3	Preliminary Decommissioning Plan	157

10.4	Estimated Cost for decommissioning Exercise	158
10.5	Demolition Methods	158
10.6	Materials Handling.....	158
10.7	Traffic Management.....	158
10.8	Occupational Health and Safety	159
11	. SUMMARY AND CONCLUSION.....	160
11.1	Summary	160
11.2	Conclusions	160
	The conclusions drawn from the study are	160
	REFERENCES & BIBLIOGRAPHY	161
	APPENDICES	162
	ANNEX 1: APPROVED TOR NEMC LETTER	162
	ANNEX 2: DRAFT TERMS OF REFERENCE (TOR).....	164
	ANNEX 3: SOCIO-ECONOMIC & ENVIRONMENTAL QUESTIONNAIRES	173
	Annex 4: Stakeholders consultation form and minutes (Maendeleo Ward)	175
	Annex 5: Iyela (stakeholders form and minutes).....	180
	Annex 6: Ruanda Ward (Stakeholders form and Minutes).....	186
	Annex 7: COUNCIL MANAGEMENT TEAM- CMT STAKEHOLDERS FORM	189
	Annex 8: Stakeholders form and Minutes for Sokomatola market (Market-Traders)	192
	Annex 9: Stakeholders form for sokomatola market leaders	216
	Annex 10: Stakeholders Form for Special Groups in Sokomatola Market	217
	Annex 11: Stakeholders form for Soweto market- Leaders	219
	Annex 12: Stakeholder form and Minutes for Soweto market- Special Group	220
	Annex 13: Stakeholders form for Soweto market – Traders.....	225
	Annex 14: Title deed for Sokomatola market	232
	Annex 15: Title Deed for Soweto Market.....	236
	Annex 16: Tittle deed for Grains and fruit market at old airport	240
	Annex 17: Geotechnical Study Report	248

Annex 18: Construction Materials Investigation Report	269
ANNEX 19: METEOROLOGIAL DATA FROM TMA.....	279

LIST OF TABLES

Table 2-1: Schedule of area and building.....	11
Table 2-2: Schedule of area and building for Sokomatola Market	15
Table 2-3: Schedule of area and building for Soweto Market	17
Table 2-4: Borrow Pit sites.....	22
Table 2-5: Sand Sources.....	23
Table 2-6: Quarry site	24
Table 4-1: Temperature and Rainfall Distribution in the Mbeya City	64
Table 4-2: distribution of population in Mbeya CC by division, ward and sex basing on the 2012 Population and Housing Censuses.	79
Table 4-3: A number of COVID-19 cases in Tanzania.....	84
Table 4-4: Land and Water Area in Square Kilometres by Division and Wards covered by TACTIC project, Mbeya City Council	85
Table 4-5: Estimated Land Area (ha) under Major Food Crops by Division, Mbeya City Council, 2011 – 2015	86
Table 5-1: Participants for Engagement and Consultation.....	89
Table 5-2: Stakeholders’ Views	94
Table 6-1: Concrete Actions on the Project Phases	103
Table 6-2: Components and Factors of the Environment	104
Table 6-3: Matrix 1 - Identification and Assessment for the proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects Environmental Impacts during Planning & Mobilization Phase.....	105
Table 6-4: Matrix 1 -Identification and Assessment of the proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects Environmental Impacts during construction Phase	106
Table 6-5: Matrix 3 - Identification and Assessment of the proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects Environmental Impacts during Operation & Maintenance and Decommissioning Phases	107
Table 6-6: Impacts Methodology table	108
Table 6-7: Description of impact	108
Table 6-8: Ranking of Overall Impact Score	109
Table 6-9: Environmental and Social analysis for Proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects at Mbeya City, TACTIC Project	110
Table 7-1: Environmental & Social Management Plan for Improvement of Soweto and Sokomatola Markets.....	126
Table 8-1: Environmental and Social Monitoring Plan for Improvement of Soweto and Sokomatola Markets and construction of grains market.....	145
Table 10-1: Preliminary Project Decommissioning Plan	157

LIST OF FIGURES

Figure 2-1: Administrative Wards Boundaries	6
Figure 2-2: Land use Master plan for Old Airport, Source: Mbeya City Master Plan.....	8
Figure 2-3: Location for Soweto Market.....	9
Figure 2-4: Location for Sokomatola Market	10
Figure 2-5: Layout of the proposed Grains and Fruit Market	13
Figure 2-6: Architecture drawings of Grains and fruit market at Old airport	14
Figure 2-7: Layout of the proposed Improvement of Sokomatola Market	16
Figure 2-8: Layout of the proposed Improvement of Soweto Market	18
Figure 4-1: Administrative Wards in Mbeya Region.....	61
Figure 4-2: Monthly Mean Maximum Temperature for Mbeya	64
Figure 4-3: Monthly Mean Minimum Temperature for Mbeya.....	65
Figure 4-4: Monthly Total Rainfall for Mbeya	65
Figure 4-5: Monthly Mean Wind speed (Knots).....	65
Figure 4-6: Temperature average over the reference period 1979-2005. This map is based on the EWEMBI dataset.....	66
Figure 4-7: Projected change in temperature for 2021-2040 compared to the reference period 1979-2005.	66
Figure 4-8: Regional climate model projections for temperature displayed as 20 year running mean.....	67
Figure 4-9: Top: Annual cycle of temperature for the period 1979-2005.....	67
Figure 4-10: Hot extremes (TXx) average over the reference period 1979-2005. This map is based on the EWEMBI dataset.....	68
Figure 4-11: Projected change in hot extremes (TXx) for 2021-2040 compared to the reference period 1979-2005.	69
Figure 4-12: Regional climate model projections for hot extremes (TXx) displayed as 20 year running mean.....	69
Figure 4-13: Top: Annual cycle of hot extremes (TXx) for the period 1979-2005.	69
Figure 4-14: Precipitation sum over the reference period 1979-2005. This map is based on the EWEMBI dataset.....	70
Figure 4-15: Projected change in precipitation for 2021-2040 compared to the reference period 1979-2005.	70
Figure 4-16: Regional climate model projections for precipitation displayed as 20 year running mean. The line represents the ensemble mean while the shaded area represents the model spread. The projections are based on the emission scenario RCP4.5.....	71
Figure 4-17: Top: Annual cycle of precipitation for the period 1979-2005. Bottom:	71
Figure 4-18: Wet extremes (RX1day) average over the reference period 1979-2005. This map is based on the EWEMBI dataset.....	72
Figure 4-19: Projected change in wet extremes (RX1day) for 2021-2040 compared to the reference period 1979-2005.	72

Figure 4-20: Regional climate model projections for wet extremes (RX1day) displayed as 20 year running mean. The line represents the ensemble mean while the shaded area represents the model spread. The projections are based on the emission scenario RCP4.5.	73
Figure 4-21: Top: Annual cycle of wet extremes (RX1day) for the period 1979-2005. Bottom:	73
Figure 4-22: Neo tectonic map from the South Rukwa - North Malawi area. Red Circled Area is Mbeya Municipality	74
Figure 4-23: Employed Population Aged 10 Years and Above by Employment Status Mbeya City Council, 2012 Census	81
Figure 4-24: Prevalence of child labour by region, 5-17 years	82

LIST OF PICTURES

Picture 2-1: Existing Situation at the Proposed Project Site	9
Picture 2-2: Current Situation at Soweto Market	10
Picture 2-3: Existing Condition at Sokomatola Market	11
Picture 2-4: Igawilo Borrow Pit	23
Picture 2-5: Mwasanga Borrow pit	23
Picture 2-7: Iduda Sand Borrow site at Iduda area.....	24
Picture 2-8: Mswiswi Quarry site.....	25

ABBREVIATIONS

BOQ - Bills of Quantity

CWIS - Citywide Inclusive Sanitation

ESIA - Environmental and Social Impact Assessment

ESCP - Environmental and Social Commitment Plan

GoT – Government of Tanzania

HQ - Head Quarters

LGA - Local Government Authority

PO-RALG – President’s Office Regional Administration and Local Government

RAP - Resettlement Action Plan

ROW - Right of Way

MBY UWASA – Mbeya Urban Water Supply and Sanitation Authority

TACTIC - Tanzania Cities Transforming Infrastructure and Competitiveness

TANESCO - Tanzania Electric Supply Company

TARURA - Tanzania Rural and Urban Roads Agency

TSCP - Tanzania Strategic Cities Project

ToR – Term of Reference

TTCL - Tanzania Telecommunication Company Limited

ULGSP - Urban Local Government Support Program

UTM - Universal Transverse Mercator

VETA - Vocational Education and Training Authority

WGS84 - World Geodetic System 1984

1 INTRODUCTION

1.1 Project Background

The Government of the United Republic of Tanzania through The President's Office - Regional Administration and Local Development (PO-RALG) has received a credit from the World Bank towards in implementing projects-financed Tanzania Cities Transforming Infrastructure and Competitiveness Project (TACTIC), which will be, implemented through the President's Office - Regional Administration and Local Development (PO-RALG).

NORPLAN Tanzania Ltd was awarded the contract by PO-RALG to conduct; Feasibility Study, Urban Design, Detailed Engineering Design, Environmental and Social Due Diligence, Preparation of Cost Estimates and Bidding Documents for Urban Infrastructure Investments for Mbeya city Council. Sokomatola and Soweto markets have been selected for upgrading under TACTIC project.

The proposed project involves construction of the new market at old airport (fruit and grains market) for the purposes of improving service at the bus terminal, commuter bus stand as well as community in Iyela and Ruanda wards. The intervention will create Job opportunity for the local communities; create Revenue generation for city and Central Government and Proper storage/handling of vegetables, fruits and fresh fish within the city.

Improvement of markets at Soweto and Sokomatola aims to build a state-of-the-art by upgrading supportive infrastructure and utilities at the markets catering 2,000 traders (80% women's) at Soweto and 800 traders at Sokomatola. The proposed constructions shall reduce the markets' congestions and provide better facilities to both traders and consumers. The proposed infrastructure development will combat critical operational issues facing the markets that include lack of proper sanitary facilities, poor solid and liquid waste management, inadequate parking space for trucks and cars, and poor supply of clean and safe water for drinking, cleaning and washing.

Proposed infrastructure for markets' development will be main centres for all fresh, dried and processed agricultural/livestock products from Mbeya region, services will include:

- Fresh products will be sold using stalls;
- Dried products will be packaged and sold in defined shops;
- Packaged processed goods may be refrigerated depending on the nature of the product;
- Selling of agricultural produce, fresh and dried i.e. maize, rice, beans/peas, wheat, sorghum millet etc.
- Selling of processed produce including sunflower oil, dairy milk, cheese, beef etc.
- Fresh and processed fruits including Oranges, bananas, mangoes, avocado, cocoa, coffee, peaches, and plums. etc.
- Vegetables will include both fresh and dried.

1.2 Project Objective

The project objective is to improve business environment for traders at both Sokomatola and Soweto markets through upgrading of markets' infrastructures to accommodate more traders and customers and increase revenue to the City Council.

1.3 Scope of Service

The Consultant was required to conduct environmental and social impact assessment for the proposed grains and fruit market at old airport and Improvement of the Soweto and

Sokomatola. The Consultant reviewed all available and relevant documents, maps, previous studies if any, and conducted the environmental and social impact assessment study, field visit and investigations, public consultations and other related works herein described to attain the stated objectives. The assignment encompassed development of a comprehensive ESIA study, which includes ESMP to be implemented by the contractor during the project implementation. The Consultancy Services was carried out in accordance with ToRs (Appendix I) that is in accordance with the requirements of the applicable national legislations.

1.4 Requirements for an ESIA

This Project falls under the list of projects requiring EIA pursuant to the First Schedule made under Regulation 6(1) of the Environmental Management (Environmental Impact Assessment and Audit) (Amendment) Regulations, 2018 and shall be read as one with the Environment Impact Assessment and Audit Regulations, 2005.

In terms of the EIA and Audit Regulations, 2005 read together with amendments of 2018. The project falls under Building and Civil Engineering Industry section (13) (a) - Type B1 (Borderline Projects with Medium to High Impact; Screening shall be used to categorized either Type 'A or 'B2'.

In addition, the World Bank requires that all environmental and social risks and impacts of the project be addressed as part of the environmental and social assessment conducted in accordance with ESS1 – Assessment and Management of Environmental and Social Risks and Impacts. ESS2–10 set out the obligations of the Borrower in identifying and addressing environmental and social risks and impacts that may require particular attention.

1.5 Objectives of Environmental Impact Assessment

The objectives of carrying out EIA study were to identify, predict and assess both positive and negative environmental and social impacts associated with the proposed project and propose mitigation measures to minimize the negative impacts and enhance the positive ones. The assessment made use of data and information on the physical, biological and socio-economic features to predict both negative and positive impacts of the project, to design mitigation measures of the adverse impacts, as well as to plan the monitoring of potential changes that may arise in the course of implementing the project. Part IV of the EIA Regulations G.N. No. 349 of 2005 provides the objectives for carrying EIA, among others the list comprises the following:

- To address and incorporate environmental considerations into the decision-making process;
- To anticipate and avoid, minimise or offset the adverse significant biophysical, social and relevant effects of developmental proposal;
- To protect the productivity and capacity of natural systems and ecological processes which maintain their functions;
- To promote sustainable development and optimises resources use and management opportunities;
- To establish and assess impacts that are likely to affect the environment before a decision is made to authorise the project;
- To propose mitigation and socio-management procedures aimed at managing the proposed mitigation of the identified potential impacts that will form part of the overall EMP for the proposed project;
- To enable information exchange, notification and consultations between stakeholders. Consequently, Division of Environment undertook Environmental Assessment so as to

decipher the principles of sustainable development and environmental protection into strategies and actions that can be applied in the proposed project

1.6 Approach and Methodology

The ESIA methodology was subject to the EIA procedures of Tanzania as per Environmental Impacts Assessment and Audit Regulations, 2005 and Regulation 17 of its amendments of 2018:

1.6.1 Study Team

For the Consultant to properly address the environmental issues, a team of experts was involved in undertaking the ESIA Study. The experts included Environmental Expert, Sociologist, and RAP Experts.

1.6.2 Social Impact Assessment Survey

A comprehensive SIA process was carried out by deploying different methods to meet the requirements as specified in the ToR. The Team reviewed all relevant documents, specifically those mentioned in the ToR in order to understand and implement the assignment as required. Secondary data focusing on the socio-economic situation of the potentially affected population were reviewed at all levels. The methodology used for carrying out SIA study includes the following;

1.6.3 Public and Officials Consultations

Public and Officials consultations were conducted between 27th December and 4th January, 2022] through meetings. During the fieldwork, consultative meetings were held with Mbeya City Council, TANESCO, MBY-UWASA, TTCL, VODACOM, TARURA, Lake Rukwa Basin Water Board, and Wards. Issues raised from these public participation exercises have been incorporated into the report (chapter 5) and have been used in preparation mitigation measures for the proposed subprojects

1.6.4 Observation

In order to obtain the existing condition along the proposed markets several studies has been undertaken including vegetation, settlement patterns, land use activities and accessibility to social services Physical observations were done to identify physical features and socio-economic conditions on the proposed project area

1.6.5 Documents Review

Various relevant documents were reviewed to obtain an overview about the project and to extract useful information required to complement SIA study. These included Tanzanian and World Bank policies, project's districts and City Socio-Economic profiles and other documents relevant to the study.

1.7 Environmental Impact Assessment

Overlying project's proposed structural elements and activities onto the existing social and environmental natural conditions has identified the potential environmental impacts of the proposed construction of grain and fruit market at old airport and improvement of Soweto and Sokomatola Market. Further, the environmental impact correlation matrix method has been adopted to predict impacts of major concern.

The environmental assessment has been undertaken in close interaction with the design consultant's team. Environmental impacts have been evaluated for various alternatives.

Several project's alternatives were considered including that of "No Go Alternative". Environmental protection strategies and environmental considerations influencing engineering design were incorporated. However, consideration of feasible technology and economic capability were taken into account. Inter alia, the assessment entailed the following:

1.7.1 Collection of Baseline Information

The collection of baseline information was conducted subsequent to defining the scope of the ESIA. These data allow the study team to determine whether more detailed information on environmental conditions along the proposed markets and its surroundings are needed and where such information can be obtained and how.

Both primary and secondary data were collected. Primary data were collected by direct measurement, observations and using semi-structured interviews with respective and targeted parties. Secondary data were obtained from various relevant sources of information such as Ministries' reports, City Council profiles, and many other published/non-published official and non-official documents

1.7.2 Review of Policies, Legal and Institutional Framework for Environmental Management

This allowed the study team to widen understanding of World Bank's Environmental and Social Framework as a whole, national policies, legislation and institutional arrangements for environmental management in Tanzania and relevant international procedures to ascertain the optimal management of impacts.

1.7.3 Impact Identification and Evaluation

The proposed grain and fruit market and improvement of Soweto and Sokomatola market causes a wide range of impacts on a number of environmental and social receptors. The ESIA has identified these impacts for the purposes of mitigating the adverse ones or enhancing the benefits. A number of 'tools' are available to assist in impact identification, in this ESIA, a matrix method were also used

Ranking of impacts in all phases (mobilization, construction and demobilization/decommissioning) signified the magnitude of each and combined impacts. As a result the more the score illustrated the severity the impact the proposed project has.

Climate Assessment as presented on subsection 4.2.5 was also conducted by the Consultant. Climate hazards refer to weather events that are exogenous to the proposed market and their consequences on the project area

1.8 Report Structure

This report is divided into Eleven (11) chapters:

- Chapter One: contains the introduction on the background information of the proposed project, its development objectives, rationale and the proposed project implementation arrangements.
- Chapter Two: contains the project description, in which there is a description of the location and relevant components of the project and their activities.
- Chapter Three: illustrates policy, legal and administrative framework, which are the relevant Tanzanian environmental policies and legislation applicable to construction projects.
- Chapter Four: has the baseline information relevant to environmental characteristics, which gives details concerning the Bio-physical environment and

socio-economic environment at the project area.

- Chapter Five: express the consultation exercise at the project area detailing the list of stakeholders consulted and the issues raised.
- Chapter Six: describes the positive and negative environmental impacts of the project that are likely to be generated from the different phases (the planning and designing, construction, operation and maintenance and the demobilization phases).
- Chapter Seven: presents the Environmental and Social Management Plan (ESMP).
- Chapter Eight: presents the Environmental Monitoring Plan that contains the proposed institutions to carry out the monitoring activities, the monitoring indicators, time frame and the proposed budget for monitoring.
- Chapter Nine: gives the cost benefit analysis of the project.
- Chapter Ten: provides the decommissioning plan for the proposed project however the decommissioning is not anticipated in the foreseeable future.
- Chapter Eleven: gives the summary and conclusions of the study

Report structure conforms to that specified on sections 18(2) and 19(1) & (2) of the Environmental Impact Assessment and Audit Regulations, 2005. Appendices containing some key primary information collected during the study are attached at the end of this report.

2 PROJECT DESCRIPTION

2.1 Introduction

This chapter provides an overview of the preliminary project's components to be designed and an overview of the sites and project activities.

The purpose of this chapter is to present sufficient project information to ESIA Process in terms of design parameters applicable to the project. It is important to note that the project description details are draft at this stage and it is likely that some of the details presented herein may slightly change during the Final detailed design phase and upon further investigations if any

2.2 Project Location

Mbeya City is the administrative centre of Mbeya region and harbours Mbeya District Council as well as a major centre for commercial and trading activities in the Southern highlands zone and neighbouring countries of Malawi, Zambia and Democratic Republic of Congo (DRC). The location of the project area is shown on Figure 2-1 below.

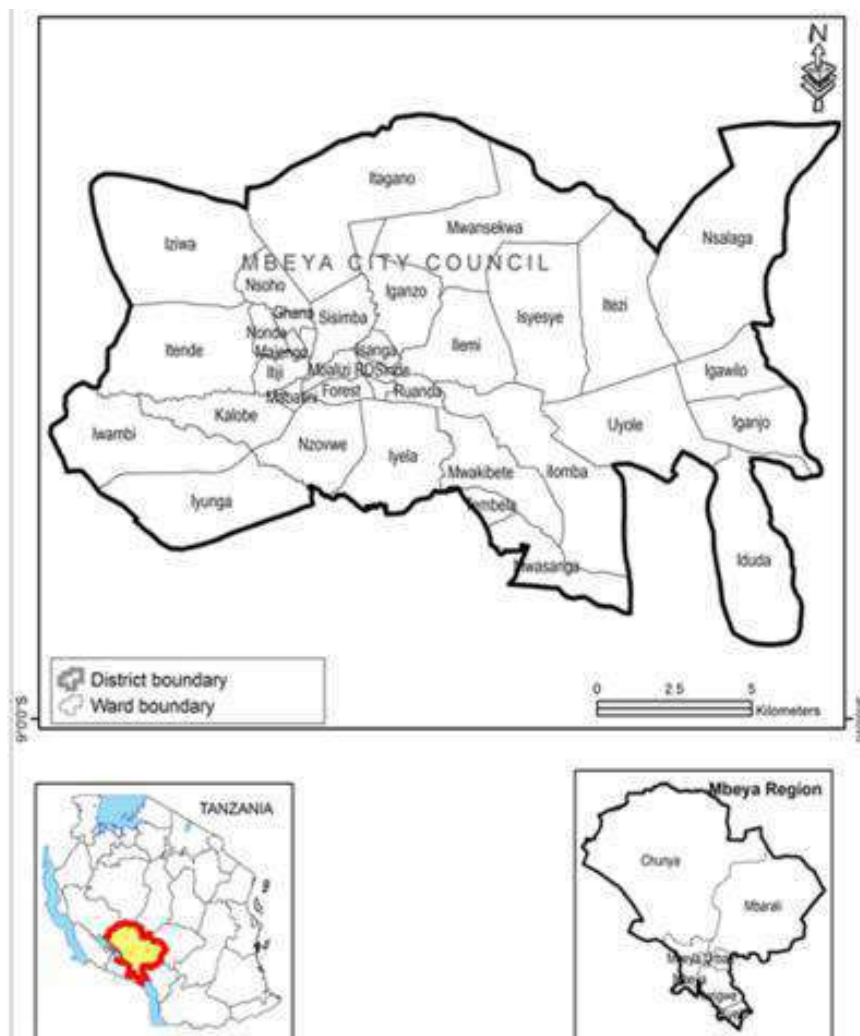


Figure 2-1: Administrative Wards Boundaries
Source: Mbeya City Master Plan, 2019

2.3 Land ownership and status

2.3.1 Sokomatola market

Mbeya City Council, of P.O. Box 149 Mbeya, (hereinafter called the occupier) are entitled to a right of occupancy title number 56539, on 14th June 2022. Plot No Market, containing 9,769 Sqm at Block 22 Situated at Sokomatola Area in Mbeya city designated for Special Retail Service and trade purpose only Use Group 'E' Use class (e) as defined in the Urban planning (Use Group and Classes) Regulation, 2018. (Annex 13)). Hence, the proposed project is compatible with the land use of the area.

2.3.2 Soweto Market

Mbeya City Council of P.O. Box 149 Mbeya (hereinafter called the occupier) are entitled to a right of occupancy title number 56417 on 14th June 2022. Plot No 1037, 1038 and 1039 Containing 2.789 Acres at Block Q Situated at Mwanjelwa Area in Mbeya city designated for Special Retail Service and trade purpose only Use Group 'E' Use class (e) as defined in the Urban planning (Use Group and Classes) Regulation, 2018. (Annex 14). Hence, the proposed project is compatible with the land use of the area.

2.3.3 Grains and fruit market at old airport

Mbeya City Council of P.O. Box 149 Mbeya (hereinafter called the occupier) are entitled to a right of occupancy title number 53264 on 13th October 2020. Plot No 1348/8 Containing 45.73 Hectares at Block S Situated at Iyela Area in Mbeya city designated for Special Retail Service and trade purpose only Use Group 'E' Use class (d) and (e) as defined in the Urban planning (Use Group and Classes) Regulation, 2018. (Annex 14). Hence, the proposed project is compatible with the land use of the area. the area has a Master plan for the future development of Mbeya city project hence the proposed project aligns with the development master plan of the area.

2.4 Existing Condition of the Urban Markets

2.4.1 Construction of grains and fruit market at Old Airport

The Old airport in Mbeya city is located at Mwanjelwa area in Iyela Ward in Mbeya city Council. The Airport area covers an area measuring 58.32Ha excluding its surroundings, communities, and receptors associated facilities such as access roads, buildings, vegetation and other infrastructure services.

The airport area of 7.09Ha, which has an existing building, will be retained by TAA and TMA and area for market development is approximately to 1.97Ha.

Development of the market aligns with the current Land Use Master Plan which was developed for the entitle area of the old airport as indicated in Figure 2.3-1

On the West and Southwest, the project site borders Samora road (which was constructed under TSCP), Samora secondary school and unplanned settlements. On the Southern East, the project area is bounded by unplanned settlements and Pambago Primary School. On the East, it is bounded by Pambago road while on the North-West; the project area borders small and medium scale industries (ALAF, TTCL go down, Ginnery, Pannar Seed Company, storage

facilities, Maranatha hospital (under renovation), a few government and private offices and residential houses (Block T).

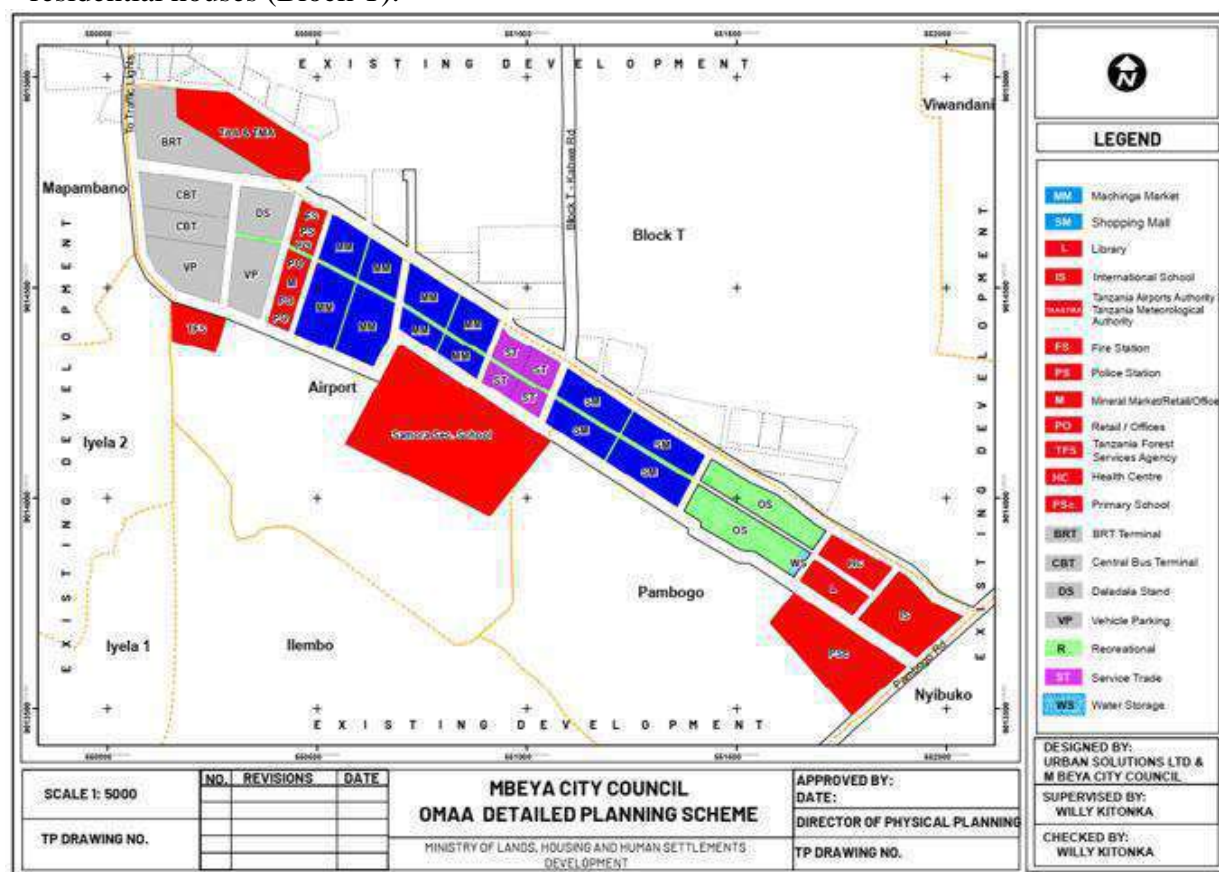


Figure 2-2: Land use Master plan for Old Airport, Source: Mbeya City Master Plan
 Source: Mbeya City Master Plan, 2019

2.4.1.1 Accessibility

The project can be accessed from alternative roads that join the TANZAM highway on the North. These include; Kabwe Block T Road, Soweto Block T Road, Viwandani Block T Road and Pambago/Mwambene road. On the North-West, the project area can be accessed through Samora/Airport Road from Mafiati Junction.

2.4.1.2 Existing Land Use

The existing area boundary of the Old-Mbeya Airport area is surrounded by residential plots/areas, Samora Secondary School, Pambago Primary School and some business and service industries (including merchandise, service trade, rice milling, edible extraction from seeds, banks etc.) which need to be properly planned. Either the area for proposed market is undeveloped/ bare land.

2.4.1.3 Present Activities in the Project Area

The present activities and buildings in the project area include the airport offices buildings and abandoned residential buildings; Meteorological activities by TMA; on-going allocation of petty traders, construction of stalls and Daladala/commuter bus stand.



Picture 2-1: Existing Situation at the Proposed Project Site
Source: Site Picture Dec 2021/Jan 2022

2.4.2 Improvement of Soweto Market

2.4.2.1 Location and Boundaries

Soweto Market is located in Ruanda ward in Mbeya City Council. The market area covers an area measuring 2.780 acres on Block Q in Mwanjelwa area. The market is surrounded by other commercial activities, access roads, buildings and other service infrastructure. Soweto market is surrounded by accesses roads on the East and South, and commercial buildings on North and South.

2.4.2.2 Accessibility

The project can be accessed from various roads that join the TANZAM highway on the South. Kabwe Block Q via Shukrani center on the North.

2.4.2.3 Present Activities at the Project Area

The market serves daily population of Mbeya city, Soweto market is termed as one of the main markets for fruits and vegetables within the city. Despite being easily accessible by many users, most of the market infrastructures are in poor condition. There are no facilities necessary for market, i.e Sanitary, storage and electricity. Currently the Soweto market has 269 retail shops inside and outside the market, wood temporally stall 772, Market cages 753, fish cages 82, chicken cage 30, and Arts touch area with 10 shops and food vendors with 21 shops. These traders within the Soweto markets makes total of 1794. The proposed rehabilitation of Soweto market shall accommodated the existing number of traders with the new design of 1,810 stall with all necessary supporting structures as described in section 2.5.3.



Figure 2-3: Location for Soweto Market
Source: Mbeya City GIS department



Picture 2-2: Current Situation at Soweto Market
Source: Site Picture Dec 2021/Jan 2022

2.4.3 Improvement of Sokomatola Market

2.4.3.1 Location and Boundaries

Sokomatola market is located in Maendeleo Ward. The market area covers an area measuring 4,480 square meters (Annex 13). The market is surrounded by other commercial activities and access roads, buildings and other service infrastructure. The Market borders access roads on the East and North, commercial and residential buildings on the West and South.



Figure 2-4: Location for Sokomatola Market
Source: Mbeya City GIS department



Picture 2-3: Existing Condition at Sokomatola Market
Source: Site Picture Dec 2021/Jan 2022

2.4.3.2 Accessibility

The project area is accessible through Independence Avenue on the North. Other access roads also include Wageni Street

2.4.3.3 Existing Land Use

The existing Sokomatola market bordered by residential, commercial and institutional uses. There are also variety of business and service industries (including merchandise, service trade, rice milling, edible extraction from seeds, banking etc) which are properly planned. However, the markets lacks proper and enough sanitary facilities, storage rooms, electricity, solid waste collection point etc. current the markets has a total of 610 traders of which 81 are retails shop and 529 are stalls for different activities. The design of the new market to be rehabilitated shall contain 742 stalls and 135 retails shops as described in section 2.5.2

2.5 Project Design and Components

2.5.1 Construction of grains and fruit market at Old Airport

Project Size and capacities

The project was designed and subdivided into four phases, these includes, Pre-construction phase, Construction phase, Operational Phase and decommissioning phase. Within these phases various activities will be carried out, these phases aim for completion of the construction of grains and fruit Market.

Proposed Grains and fruit market structure

In the proposed subproject of constructing the grains and fruit market the building and facility to be constructed are shown in the table

Table 2-1: Schedule of area and building

GRAIN SECTION	No of unit	Total area (M ²)
Grains Stalls	132	1,189
Shops	56	1,303
Storage	03	712
FRUIT SECTION		

Fruit Stalls	50	525
Shops	06	989
Storage	03	712
Circulation Space	01	1,822
SERVICE SECTION		
Finance Services		177
DayCare & Nursing		39
Offices		104
Toilets		80
Circulation Space		662
TOTAL		10,956

Source: Digital Space Consultant



Figure 2-5: Layout of the proposed Grains and Fruit Market
Source: Digital Space Consultant

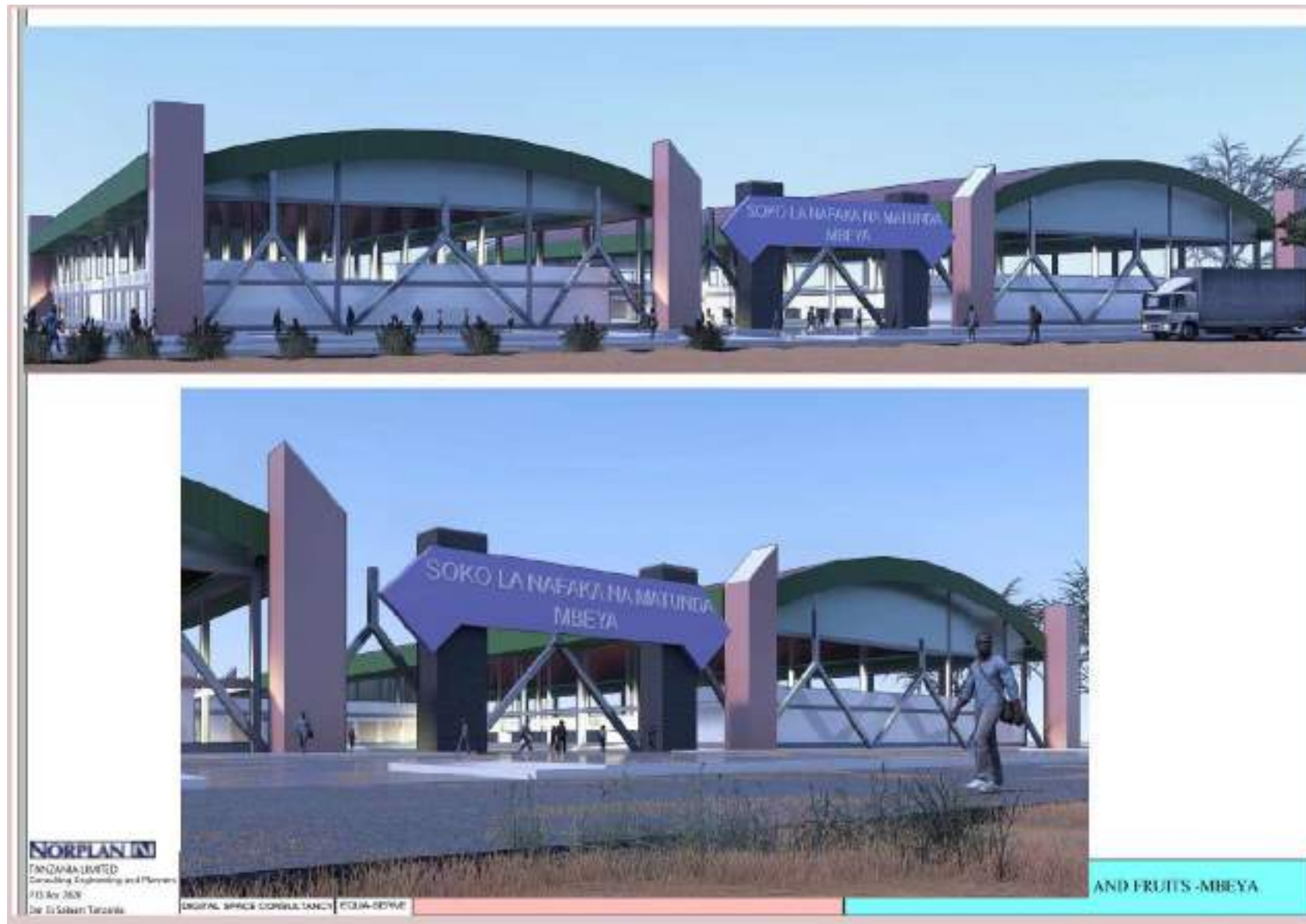


Figure 2-6: Architecture drawings of Grains and fruit market at Old airport
Source: Digital Space Consultant

2.5.2 Improvement of Sokomatola and Soweto Markets

Project Size and capacities

The project has been designed and subdivided into four phases, these includes planning phase (demolition of the existing structure), Construction phase, Operational Phase and decommissioning phase. Within these phases various activities will be carried out to completion the construction of Soweto and Sokomatola markets.

Proposed improvement of Sokomatola market structure

Construction upgrading of Sokomatola market shall involve the following components as shown in the table below

Table 2-2: Schedule of area and building for Sokomatola Market

SCHEDULE OF AREAS

MAIN BUILDING (GROUND FLOOR)	NO. OF UNITS	AREA/UNIT M²	TOTAL AREA M²
STALLS	742	2.015	1,560
RETAIL SHOPS	135		1132.5
TOILETS	20		153
CIRCULATION AREA			2,764.6
NURSING AREA	01		40
SOCIAL GATHERING	03		99
EMERGENCY FIRST AID	01		53
STORE	01		51
ATM AREA	03		63
HAND WASHING AREA	01		44
GARBAGE COLLECTION	01		123
SERVICE UTILITY	01		43
TOTAL FLOOR AREA			6,010
Pavement area 1,930 sqm			

Source: Digital Space Consultant, 2022

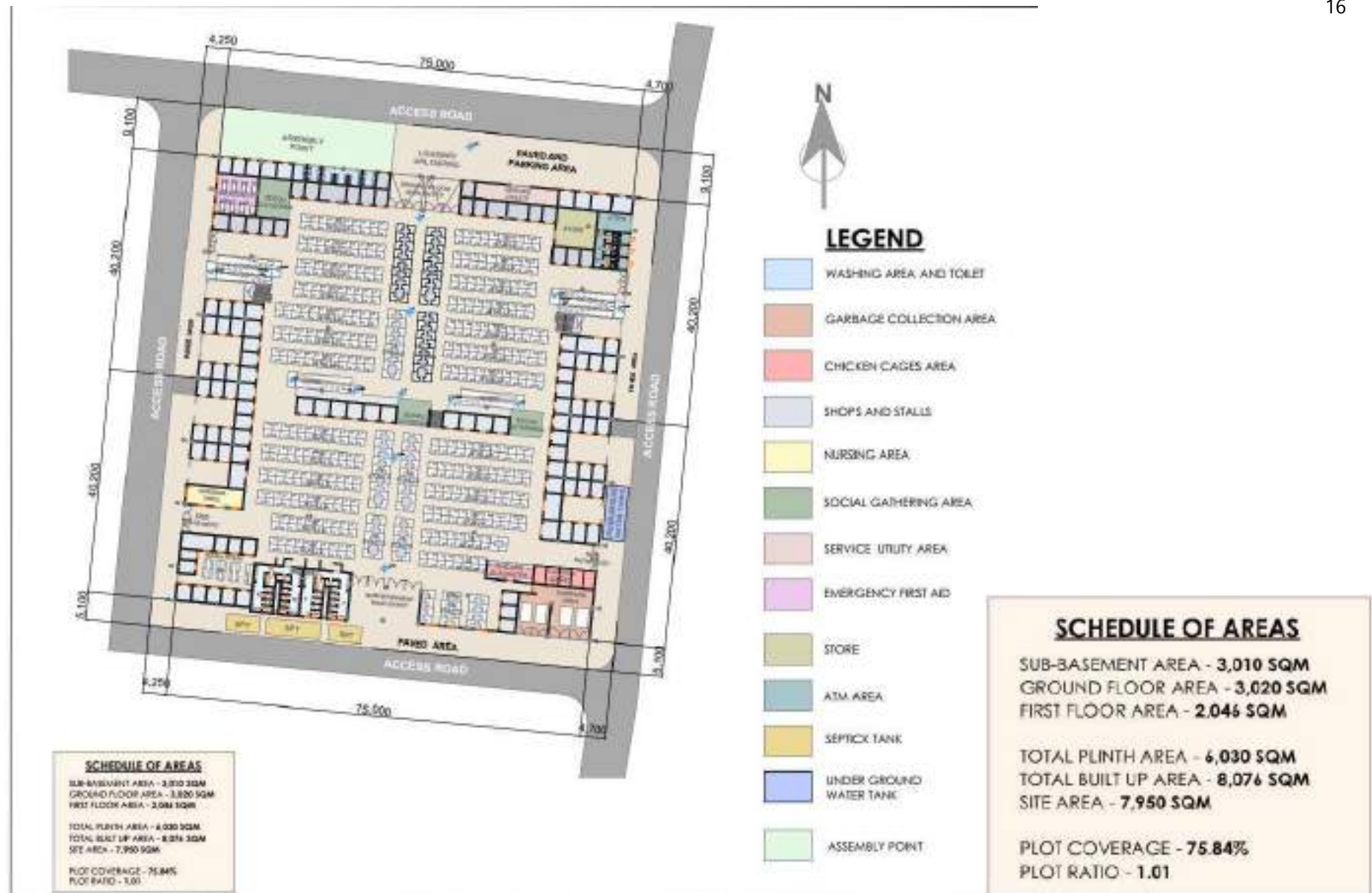


Figure 2-7: Layout of the proposed Improvement of Sokomatola Market
 Source: Digital Space Consultant, 2022

2.5.3 Proposed improvement of Soweto market structure

Soweto market upgrading shall involve the following components as indicated in table 2-3 below

Table 2-3: Schedule of area and building for Soweto Market

SCHEDULE OF AREAS

MAIN BUILDING (GROUND FLOOR)	NO. OF UNITS	AREA/UNIT M ²	TOTAL AREA M ²
STALLS	1,810	2.015	3,708
RETAIL SHOPS	273		2,242
TOILETS	20		153
CIRCULATION AREA	01		6,205
NURSING AREA	01		35
SOCIAL GATHERING	02		212
EMERGENCY FIRST AID	01		78
STORE	01		44
ATM AREA	03		59
HAND WASHING AREA	01		59
GARBAGE COLLECTION	02		172
SERVICE UTILITY			
TOTAL FLOOR AREA			12,880
Pavement area 4,590 sqm			

Source:

Digital

Space

Consultant,

2022

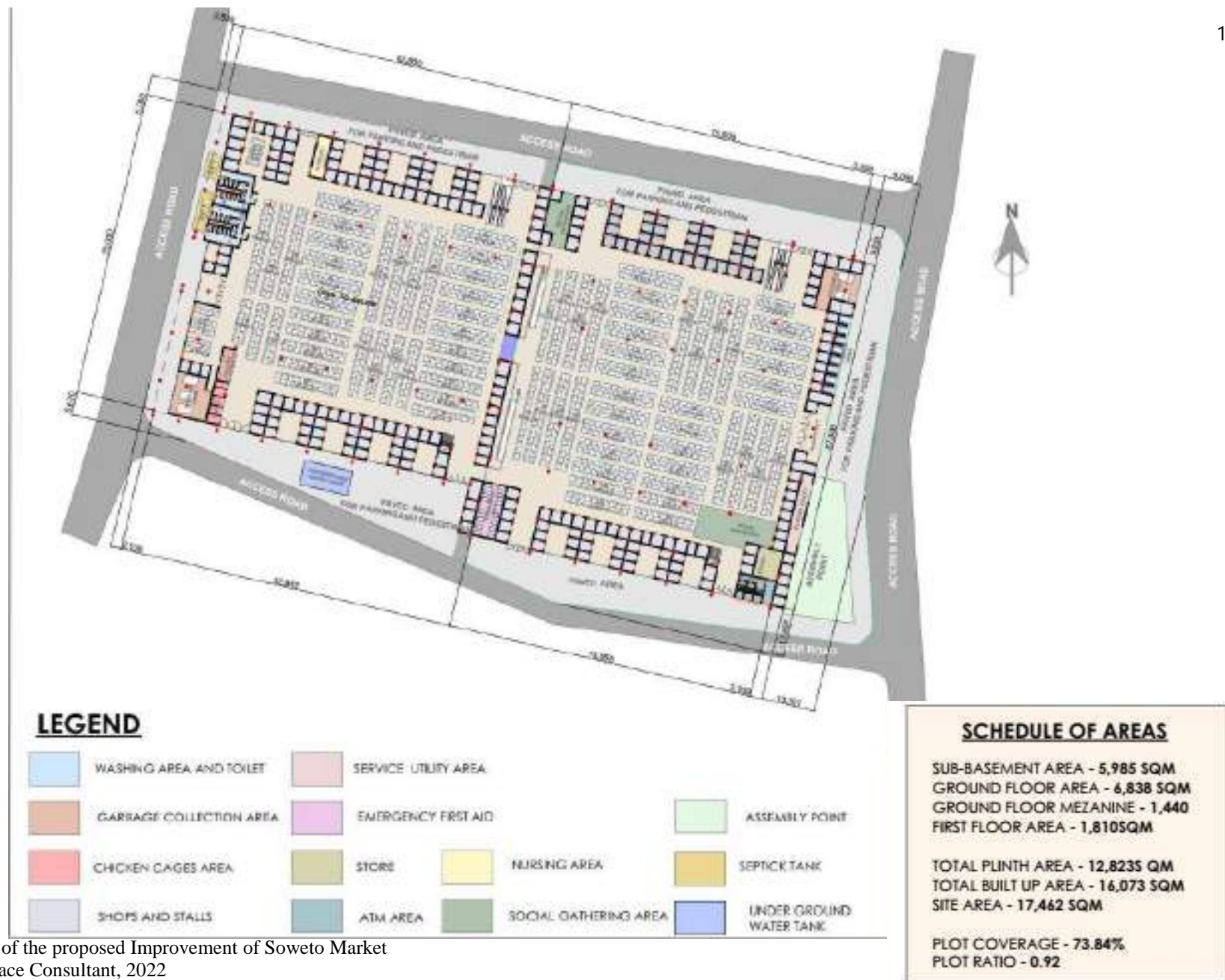


Figure 2-8: Layout of the proposed Improvement of Soweto Market
 Source: Digital Space Consultant, 2022

2.6 Design Considerations

2.6.1 Sanitation

The markets will have bathroom, toilets (flushing system) each for male and female including one for disabled people, which were not available in Soweto and Sokomatola markets. Wastewater generated will be managed through onsite septic tank and soak away pit and septic tank/ sewerage network for Sokomatola market that is located along Wageni Road. The end disposal of the sewer is located at Itende/Kalobe (Waste stabilization ponds). For the proposed grains and fruit, market at old airport and Soweto market, the design has opted for the septic tank and soak away pit method due to the geographical nature of the area and lack of sewer nearby. The management system is simple to construct with high efficiency and enough space for construction.

2.6.2 Solid Waste Management

Market places commonly generate solid and liquid wastes. Soweto has been generating a large waste from vegetable and fruits' remains. According to the City council, the generation of the waste per day is 332 tonnes; while per capital generation is estimated at 0.7kg/day. The proposed project site will have designated place for collection and sorting of solid waste according to their characteristics. These areas will be provided with large waste collection bins (Skip buckets), these skip buckets will be collected by the company awarded tender to collect solid waste in the Mbeya City Council and disposal them in Nsalaga Landfill

2.6.3 Management of Wastewater

The proposed site for grains and fruit market and improvements of Soweto and Sokomatola markets will be connected with water from Mbeya- UWASA for operational purposes, major water uses will be for sanitary purposes and other domestic uses such as, hand washing, mopping and watering garden.

Waste water management system will be connected to septic tank and soak away pit. Effluents generated from toilets and washrooms are discharged into the septic tanks and that will be located at the proposed site. The project is expected to generate 80m³/day during construction based on 250 workers, 40 liters consumption and 80% become waste. Also, during operation phase the markets are expecting to serve a total of 1,200 in which expected to generate 3,848m³/day. It is also important to make sure that sewage pipes are not blocked or damaged since such iniquities can lead to release of the effluent to the environment, resulting into land and water contamination. Such blockages or damages have to be fixed quickly. Once the septic tank is full of sludge, shall be emptier by vacuum trucks to treatment located at at Kalobe Waste Stabilization Ponds.

2.6.4 Electricity Power Lines

Both existing markets are not connected with electricity, for improved and new markets shall be connected with electricity from TANESCO. The proposed construction shall substantially increase the power demand and thus provision of one transformer with an average capacity of 500KvA shall be required to each subproject.

Other Project Supporting facilities

- Firefighting equipment (fire extinguishers and emergency exist);
- Septic tanks and soak way pits;
- Storm water system
- Access gate
- Parking area

- Overhead water storage tanks

2.6.5 Storm water management

In association with a contractor, the design of proper drainage system for collecting the storm water in the area during construction and operation phase to avoid water logging and soil erosion. In Soweto and Sokomatola market there are existing storm water drains that's are close to the project site that shall be connected during project phase operation, for fruit and grains market, new proposed storm water drains shall be established.

2.7 Project Schedule and Life

Construction of the grains and fruit market at old airport, and improvement of Soweto and Sokomatola markets under TACTIC ZONE 3 shall start soon after approval of all related studies, i.e. feasibility, engineering designs and environmental clearance and construction tender award in mid-year 2022. The project life is expected to be 50years

2.8 Proposed Project Cycle

2.8.1 Project Planning Phase

Feasibility study, ESIA preliminary engineering planning, final engineering planning and construction planning form the planning phase of the project.

During the planning process, a Modern Market project is given its form and details which becomes more and more detailed in phases, adjusted to correspond to land use planning.

Preliminary engineering planning determines the approximate location of proposed Modern Market, and the principles underlying the prevention of negative impacts to the environment. Planning is performed at a level of detail which ensures that the plan is technically, financially and environmentally feasible. Since Tanzanian legislation requires an environmental and social impact assessment (ESIA), the proposed Modern Market project under environmental impact is assessed according to the Environmental Management Act, 2004 and its EIA and Audit Regulations, 2005 and amendments of 2018 during the preliminary engineering planning phase. The approval decision is made on the preliminary engineering plan.

During the preliminary engineering planning phase, the project design co-parties include Mbeya City Council, regional, environmental authorities and other planning organizations, landowners, Institutions (TANESCO, TTCL, MBY-UWASA, and Lake Rukwa Basin. Etc), local residents/communities along the construction subprojects, traders and various NGOs. Extensive interaction is important during preliminary engineering planning in particular, since the most important basic project solutions are decided in this phase.

Final engineering planning determines the precise location of the proposed subprojects, areas required for the markets, intersections of the proposed infrastructure and other connections, solutions for solid waste collection and disposal mechanism, waste water management, fire hazards, water supply and other detailed solutions such as measures necessary to the prevention of negative traffic impacts. Because the final engineering plan settles all issues directly affecting land owners and other parties concerned, interaction is focused on issues to be agreed with them. The approval decision is made on the final engineering plan.

Compensation is paid for any damage caused to external property during final engineering or prior to construction. Environmental certification by the National Environment Management Council (NEMC) is also finalized at this stage.

During project planning phase only, paper works are involved as summarized below:

- Evaluation of project concepts and alternatives selection,
- Design of all project components,
- Topographic survey
- Geo-technical Investigations;
- Soils and Materials Investigations;
- Carrying out ESIA of the project,
- Tendering for construction works,
- Approval of Engineering designs and Environmental Certification

2.8.2 Project Mobilization & Construction Phase

The mobilization and construction phase will take place subsequent to the issuing of Environmental Impact Assessment Certificate and once a construction contract with a suitable contractor is signed. The construction phase is expected to be approximately 18-24 months for the proposed markets.

The construction phase will involve the transportation of: construction materials and equipment to the site, and personnel away from the site (the personnel that will not be accommodated on-site).

All efforts will be made to ensure that all construction work is undertaken in compliance with local and national legislation, local and international best practice, as well as the Environmental and Social Management Plans (ESMPs), which will be compiled during the ESIA Phase and included in the ESIA Report.

During the construction phase, both skilled and unskilled temporary employment opportunities will be created. It is difficult to specify the actual number of employment opportunities that will be created at this stage; however approximately 150 direct and more than 250 indirect employment opportunities are expected to be created during construction phase.

It should however be noted that employment during the construction phase will be temporary, whilst very few long-term employments during the operational phase.

Below is a summary of activities during mobilization and construction phase of the proposed project;

- i. Acquisition of materials from approved sources and storage
- ii. Testing of the construction materials
- iii. Acquisition of other permits such as water use permits
- iv. Confirmation of data and accuracy of topographical survey
- v. Mobilization of labour force, equipment and plant for construction works
- vi. Relocation of utilities,
- vii. Earthworks
- viii. Material transportation and storage
- ix. Abstraction and transportation of water to the construction site
 - x. Collection, storage, transportation, treatment and disposal of wastes generated from construction activities
- xi. Actual construction works
- xii. Occupational health and safety management

xiii. Landscaping and environmental restoration.

As construction progresses towards the end, demobilization phase will begin. Demobilization will be done for proper restoration of the site after completion of construction activities such as removing/spreading top-soils piled around the markets' areas, removing all temporary structures, campsites/offices may be left to the local government / government institutions depending on agreement that will be reached during the demobilization phase. Other activities shall include clearance of all sorts of wastes including used oil, sewage, solid wastes (plastics, wood, metal, papers, etc).

This shall also involve collection and deposition of all wastes to the approved dumpsite and termination of temporary employments and subcontracts before handing over the project to Mbeya City Council for operation

2.8.3 Project Operation Phase

Once the construction phase is completed, the markets will start to operate to serve the intended purposes. The activities that are expected to be executed during operational phase include:

- i. Delivery of commodities to the markets and selling;
- ii. Solid waste management
- iii. Wastewater management; and
- iv. Utilities maintenance

2.8.4 Security, health and safety issues

The construction activities are associated with occupational health hazards as well as public health hazards. In this case measures to offset or reduce health hazards shall be employed accordingly and these include among others provision of personal protective gears, construction to be restricted only during the day time, providing induction training to all employees to ensure they are aware of the health hazards and thus take appropriate initiative to protective themselves. Machines operating at site shall be equipped with fire extinguishers just in case of fire. Furthermore, the site of work shall be registered by OSHA as required

2.9 Construction Materials

2.9.1 Gravel, Sand and Quarry Sites

Gravels shall be sourced from Isonga (Iganzo way to Chunya), and Igawilo. Sand will be sourced from Itua, Iduda and Mwasanga. For aggregates, will be sourced from Ingula Pipeline and Mswiswi (Tazara) a., all sites for construction materials are within the project's Region.

Table 2-4: Borrow Pit sites

S/N	Name	Location	Distance	Description
1	Isanga	Iganzo Way to Chunya		The borrow pits area active and currently used to supply materials during construction or regular maintenance in Mbeya City Council. The borrow pits are owned by licensed operators by the Ministry of Minerals.
2	Igawilo	Ilomba Ward	15km	The borrow pit has an area approximately to 1,640 meters and currently used to supply materials during construction or regular maintenance in Mbeya City Council. The area is privately owned.



Picture 2-4: Igawilo Borrow Pit

Source: Google earth Edited by EIA Consultant

Table 2-5: Sand Sources

SN	Name	Location	Description
1	Iduda	Iduda	The borrow pit is active with an area approximately to 1,450 Meters, and currently used to supply materials during construction or regular maintenance in Mbeya City Council. The borrow pit is owned by licensed operators by the Ministry of Minerals.
2	Mwasanga	Mwasanga	The borrow pit is active with an areas approximately to 2,258Meters, and currently used to supply materials during construction or regular maintenance in Mbeya City Council. The borrow pit is owned by licensed operators by the Ministry of Minerals.



Picture 2-5: Mwasanga Borrow pit

Source Google earth Edited by EIA Consultant



Picture 2-6: Iduda Sand Borrow site at Iduda area

Source: Google earth Edited by EIA Consultant

2.9.2 Quarry site (aggregates)

Quarry sites proposed to supply materials for subprojects are located at Ingula pipeline, Mswiswi and (Tazara Quarry). Both sites have enough quantities to be exploited for the project's construction

Table 2-6: Quarry site

SN	NAME	Location	Distance
1	Inyala Pipeline	8°49'13.37"S, 33°40'36.94"E	Quarry site is located at inyala in Mbeya rural district; it is a privately owned site with an area approximately to 1,917meter used to supply materials during construction or regular maintenance in Mbeya City Council. The site is close to TAMZAN Highway about 200m to the south
2	Mswiswi (Tazara quarry) kongolo mswiswi	8°46'38.64"S, 33°47'50.83"E	Quarry site is located at Mswiswi area Mbeya Rural district; it is a privately owned site with an area approximately to 2,1497meter used to supply materials during construction or regular maintenance in Mbeya City Council. The site is close to TAMZAN Highway about 150m to the south, 40km to Mbeya town center



Picture 2-7: Mswiswi Quarry site
Source: Google earth Edited by EIA Consultant

3 POLICY, LEGAL & ADMINISTRATIVE FRAMEWORK

3.1 Overview

This section is aimed at reviewing relevant environmental resource and planning legislations and regulations to ensure that Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market meet policy and legislative criteria, World Bank's Environmental and Social Standards (ESSs) and that all relevant requirements are built into project design and implementation. The review also outlines specific procedures and measures to be carried out before, during and after subproject development.

Below are identified policies, legislations, World Bank's ESSs and International Conventions reviewed and included in the Draft ESIA describing their relevance to the proposed subproject?

3.2 World Bank's Environmental and Social Framework

The World Bank Environmental and Social Framework sets out the World Bank's commitment to sustainable development, through a Bank Policy and a set of Environmental and Social Standards that are designed to support (GoT) Borrowers' projects, with the aim of ending extreme poverty and promoting shared prosperity.

This Framework comprises:

- A Vision for Sustainable Development, which sets out the Bank's aspirations regarding environmental and social sustainability;
- The World Bank Environmental and Social Policy for Investment Project Financing, which sets out the mandatory requirements that apply to the Bank; and
- The Environmental and Social Standards, together with their Annexes, which set out the mandatory requirements that apply to the Borrower, in this case the Government of Tanzania and TACTIC project.

This ESIA has reviewed the above framework's components' relevance to the Project as shown in the below sub sections;

3.2.1 Vision for Sustainable Development

World Bank Group is globally committed to environmental sustainability, including stronger collective action to support climate change mitigation and adaptation, recognizing this as essential in a world of finite natural resources. It recognizes that climate change is affecting the nature and location of projects, and that World Bank-financed projects should reduce their impact on the climate by choosing alternatives with lower carbon emissions.

Equally, social development and inclusion are critical for all of the World Bank's development interventions and for achieving sustainable development.

At the project level, these global aspirations translate into enhancing development opportunities for all, particularly the poor and vulnerable, and promoting the sustainable management of natural and living resources. Therefore, within the parameters of a project, the Bank seeks to

- Address project-level impacts on climate change and consider the impacts of climate change on the selection, siting, planning, design and implementation and decommissioning of projects;
- Maximize stakeholder engagement through enhanced consultation, participation and accountability.

The Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market have observed the vision of sustainable development by ensuring climate change adaptation strategies have been taken into considerations.

3.2.2 World Bank Environmental and Social Policy for Investment Project Financing

This Environmental and Social Policy for Investment Project Financing sets out the mandatory requirements of the Bank in relation to the projects it supports through Investment Project Financing

The Bank is committed to supporting Tanzania government in the development and implementation of projects that are environmentally and socially sustain-able, and to enhancing the capacity of Borrowers 'environmental and social frameworks to assess and manage the environmental and social risks and impacts of projects.

The Bank will assist Tanzania government in their application of the ESSs to projects supported through Investment Project Financing in accordance with this Environmental and Social Policy for Investment Project Financing (Policy).

To carry out this Policy, the Bank will:

- Undertake its own due diligence of proposed projects, proportionate to the nature and potential significance of the environmental and social risks and impacts related to the project;
- As and where required, support the Tanzania government to carry out early and continuing engagement and meaningful consultation with stakeholders, in particular affected communities, and in providing project-based grievance mechanisms;

The Banks shall evaluate the environmental and social risks management plan including the extent of stakeholders' engagement on the project throughout.

TACTIC project engaged various stakeholders during preparation of Environmental and Social Management Framework (ESMF) and other supporting Environmental and Social Safeguard Instruments i.e. Labour Management Procedures (LMP), Resettlement Policy Framework (RPF), Stakeholders Engagement Plan (SEP) and Gender-Based Violence Action Plan (GBV Plan). However; at subprojects level, the Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects have been conducted with ESIA study to comply with Environmental and Social Policy for Investment Project Financing. During the study, various stakeholders from Mtaa level to National Level were engaged, their views captured and used for influencing the design of proposed subprojects as indicated in chapter 5 of this ESIA.

In addition, specific SEP, RAP and LMP have been prepared for subprojects to guide the implementation and operation of the proposed subprojects.

3.2.3 World Bank Environmental and Social Standards (ESSs)

3.2.3.1 Environmental and Social Standard 1: Assessment and Management of Environmental and Social Risks and Impacts

ESS1 sets out the Borrower's (GoT) responsibilities for assessing, managing and monitoring environmental and social risks and impacts associated with each stage of a project supported by the Bank through Investment Project Financing, in order to achieve environmental and social out-comes consistent with the Environmental and Social Standards (ESSs).

The Government of Tanzania through PO-RALG is required to conduct environmental and social assessment of subprojects proposed for Bank financing under TACTIC project to help ensure that subprojects are environmentally and socially sound and sustainable. The

environmental and social assessment should be proportionate to the risks and impacts of the subproject. It will inform the design of the subproject, and be used to identify mitigation measures and actions and to improve decision making.

PO-RALG will manage environmental and social risks and impacts of the subproject throughout the project life cycle in a systematic manner, proportionate to the nature and scale of the subproject and the potential risks and impacts.

ESS1 includes the following annexes, which form part of ESS1, and set out certain requirements in more detail:

- ✓ Annex 1: Environmental and Social Assessment;
- ✓ Annex 2: Environmental and Social Commitment Plan; and
- ✓ Annex 3: Management of Contractors

Among the requirements under ESS1 relevant to the Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects include: Conduct an environmental and social assessment of the proposed subproject, including stakeholder engagement; Undertake stakeholder engagement and disclose appropriate information in accordance with ESS10; Develop an Environmental and Social Commitment Plan (ESCP), and implement all measures and actions set out in the legal agreement including the ESCP; and Conduct monitoring and reporting on the environmental and social performance of the project against the ESSs.

In addition, the proposed subproject should apply the relevant requirements of the Environmental Health and Safety Guidelines (EHSGs) once Tanzanian requirements differ from the levels and measures presented in the EHSGs, the GoT will be required to achieve or implement whichever is more stringent.

The proposed subprojects have been conducted with ESIA study and adequately undertaken stakeholders' engagement as required by ESS1 in order to create the sense of ownership by the community and sustainability. PO-RALG shall prepare ESCP and sign legal agreement on its implementation.

3.2.3.2 Environmental and Social Standard 2: Labor and Working Conditions;

ESS2 recognizes the importance of employment creation and income generation in the pursuit of poverty reduction and inclusive economic growth. The government of Tanzania is required to promote sound worker-management relationships and enhance the development benefits of Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects under TACTIC project by treating workers in the project fairly and providing safe and healthy working conditions.

Among ESS2 objectives include:

- To promote safety and health at work
- To promote the fair treatment, nondiscrimination and equal opportunity of project workers
- To protect project workers, including vulnerable workers such as women, persons with disabilities, children (of working age, in accordance with this ESS) and migrant workers, contracted workers, community workers and primary supply workers, as appropriate.
- To prevent the use of all forms of forced labor

Where government civil servants are working in connection with the project, whether full-time or part-time, they will remain subject to the terms and conditions of their existing public sector employment agreement or arrangement, unless there has been an effective legal transfer of their employment or engagement to the project 8 ESS2 will not apply to such government civil servants, except for the provisions of paragraphs 17 to 20 (Protecting the Work Force) and paragraphs 24 to 30 (Occupational Health and Safety).

9 The Borrower will develop and implement written labor management procedures applicable to the project These procedures will set out the way in which project workers will be managed, in accordance with the requirements of national law and this ESS 9 The procedures will address the way in which this ESS will apply to different categories of project workers including direct workers, and then way in which the Borrower will require third parties to manage their workers in accordance with paragraphs 31–33.

10 Project workers will be provided with information and documentation that is clear and understandable regarding their terms and conditions of employment The information and documentation will set out their rights under national labor and employment law (which will include any applicable collective agreements), including their rights related to hours of work, wages, overtime, compensation and benefits, as well as those arising from the requirements of this ESS This information and documentation will be provided at the beginning of the working relationship and when any material changes to the terms or conditions of employment occur

The project contractor shall adhere to the objectives under regular audits to be conducted by PO-RALG, OSHA and the project Supervising Engineer. However, specific subproject's Labour Management Procedures (LMP) has been prepared to guide labour issues during construction and operation of the proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects.

3.2.3.3 Environmental and Social Standard 3: Resource Efficiency and Pollution Prevention and Management;

ESS3 recognizes that economic activity and urbanization often generate pollution to air, water, and land, and consume finite resources that may threaten people, eco- system services and the environment at the local, regional, and global levels. The current and projected atmospheric concentration of greenhouse gases (GHG) threatens the welfare of current and future generations at the same time, more efficient and effective resource use, pollution prevention and GHG emission avoidance, and mitigation technologies and practices have become more accessible and achievable.

Among ESS3 objectives include:

- To promote the sustainable use of resources, including energy, water and raw materials
- To avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities
- To avoid or minimize project-related emissions of short and long-lived climate pollutants
- To avoid or minimize generation of hazardous and non-hazardous waste
- To minimize and manage the risks and impacts associated with pesticide use

On pollution prevention and management, the Government of Tanzania through PO-RALG will avoid the release of pollutants or, when avoidance is not feasible, minimize and control

the concentration and mass flow of their release using the performance levels and measures specified in national law or the EHSGs, whichever is most stringent.

During construction, operation of machineries, equipment and plant shall contribute on GHG emissions. Contractor shall adhere to all recommended actions to reduce GHG emissions from operating vehicles and plant. In addition, installation of diesel generator as an emergency power supply shall be taken into account as GHG contributor. Low emissions generator has been proposed in chapter 2 of this ESIA.

3.2.3.4 Environmental and Social Standard 4: Community Health and Safety;

ESS4 recognizes that project activities, equipment, and infrastructure can increase community exposure to risks and impacts. In addition, communities that are already subjected to impacts from climate change may also experience an acceleration or intensification of impacts due to project activities.

ESS4 addresses the health, safety, and security risks and impacts on project-affected communities and the corresponding responsibility of GoT through PO-RALG to avoid or minimize such risks and impacts, with particular attention to people who, because of their particular circumstances, may be vulnerable.

Objectives of the ESS4 include:

- To anticipate and avoid adverse impacts on the health and safety of project-affected communities during the project life cycle from both routine and non-routine circumstances.
- To promote quality and safety, and consider actions relating to climate change, in the design and construction of infrastructure, including dams.
- To avoid or minimize community exposure to project-related traffic and road safety risks, diseases and hazardous materials
- To ensure that the safeguarding of personnel and property is carried out in a manner that avoids or minimizes risks to the project-affected communities

ESS4 requires:

The GoT will design, construct, operate, and decommission the structural elements of the project in accordance with national legal requirements, the EHSGs and other GIIP, taking into consideration safety risks to third parties and affected communities.

Where the project involves provision of services to communities, the GoT will establish and implement appropriate quality management systems to anticipate and minimize risks and impacts that such services may have on community health and safety. In such circumstances, the GoT will also apply the concept of universal access, where technically and financially feasible.

The proposed construction and operation of Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects have identified, evaluated and shall monitor the potential health and safety risks to workers, affected communities and other users throughout the project life cycle. The ESMP has incorporated technically and financially feasible safety measures into the subproject's design to prevent and mitigate potential safety risks to all users and affected communities.

3.2.3.5 Environmental and Social Standard 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement;

ESS5 recognizes that project-related land acquisition and restrictions on land use can have adverse impacts on communities and persons. Project-related land acquisition or restrictions on land use may cause physical displacement (relocation, loss of residential land or loss of shelter), economic displacement (loss of land, assets or access to assets, leading to loss of income sources or other means of livelihood), or both. The term “involuntary resettlement” refers to these impacts. Resettlement is considered involuntary when affected persons or communities do not have the right to refuse land acquisition or restrictions on land use that result in displacement.

Objectives of ESS5 include:

- To avoid involuntary resettlement or, when unavoidable, minimize involuntary resettlement by exploring project design alternatives
- To avoid forced eviction
- To mitigate unavoidable adverse social and economic impacts from land acquisition or restrictions on land use by: (a) providing timely compensation for loss of assets at replacement cost and (b) assisting displaced persons in their efforts to improve, or at least restore, their livelihoods and living standards, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher
- To improve living conditions of poor or vulnerable persons who are physically displaced, through provision of adequate housing, access to services and facilities, and security of tenure
- To conceive and execute resettlement activities as sustainable development programs, providing sufficient investment resources to enable displaced persons to benefit directly from the project, as the nature of the project may warrant
- To ensure that resettlement activities are planned and implemented with appropriate disclosure of information, meaningful consultation, and the informed participation of those affected

Among the requirements of ESS5 include the following:

11 The GoT will demonstrate that involuntary land acquisition or restrictions on land use are limited to direct project requirements for clearly specified project purposes within a clearly specified period of time. Will consider feasible alternative project designs to avoid or minimize land acquisition or restrictions on land use, especially where this would result in physical or economic displacement, while balancing environmental, social, and financial costs and benefits, and paying particular attention to gender impacts and impacts on the poor and vulnerable.

12. When land acquisition or restrictions on land use (whether permanent or temporary) cannot be avoided, the GoT will offer affected persons compensation at replacement cost, and other assistance as may be necessary to help them improve or at least restore their standards of living or live-livelihood, subject to the provisions of paragraph 26 through 36 of this ESS.

13. Compensation standards for categories of land and fixed assets will be disclosed and applied consistently. Compensation rates may be subject to upward adjustment where negotiation strategies are employed. In all cases, a clear basis for calculation of compensation will be documented, and compensation distributed in accordance with transparent procedures.

14. Where livelihoods of displaced persons are land-based, or where land is collectively owned, the GoT will offer the displaced persons an option for replacement land in accordance with paragraph 35(a), unless it can be demonstrated to the Bank's satisfaction that equivalent replacement land is unavailable.

15. The GoT will take possession of acquired land and related assets only after compensation in accordance with this ESS has been made available and, where applicable. In addition, livelihood restoration and improvement programs will commence in a timely fashion in order to ensure that affected persons are sufficiently prepared to take advantage of alternative livelihood opportunities as the need to do so arises.

19. The GoT will ensure that a grievance mechanism for the project is in place, in accordance with ESS10 as early as possible in project development to address specific concerns about compensation, relocation or livelihood restoration measures raised by displaced persons (or others) in a timely fashion.

The land proposed for Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects are legally owned by Mbeya City Council and thus no resettlement is expected. However, in the action requiring additional land for future development if any, the GoT through PO-RALG shall adhere to the requirements of ESS5 including preparation of Resettlement Action Plan (RAP). Subproject's GRM has been prepared as part of chapter 7 "Environmental and Social Management Plan" that shall guide handling of grievances during construction phase.

3.2.3.6 Environmental and Social Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources;

ESS6 recognizes the importance of maintaining core ecological functions of habitats, including forests, and the biodiversity they support.

This ESS also addresses sustainable management of primary production and harvesting of living natural resources.

ESS6 recognizes the need to consider the livelihood of project-affected parties, including Indigenous Peoples, who's access to, or use of, biodiversity or living natural resources may be affected by a project. The potential, positive role of project affected parties, including Indigenous Peoples, in biodiversity conservation and sustainable management of living natural resources is also considered

Objective of ESS6 include but not limited to:

- To protect and conserve biodiversity and habitats
- To apply the mitigation hierarchy and the precautionary approach in the design and implementation of projects that could have an impact on biodiversity
- To promote the sustainable management of living natural resources
- To support livelihoods of local communities, including Indigenous Peoples, and inclusive economic development, through the adoption of practices that integrate conservation needs and development priorities

ESS6 requirements include among others:

8. The environmental and social assessment as set out in ESS1 will consider direct, indirect and cumulative project-related impacts on habitats and the biodiversity they support. This assessment will consider threats to biodiversity, for example habitat loss, degradation and fragmentation, invasive alien species, overexploitation, hydrological changes, nutrient loading, pollution and incidental take, as well as projected climate change impacts.

10. Through the environmental and social assessment, the GoT will identify the potential project related risks to and impacts on habitats and the biodiversity that they support.

11. The GoT's assessment will include characterization of baseline conditions to a degree that is proportional and specific to the anticipated risk and significance of impacts.

As described in chapter 4, the proposed site has no sensitive biodiversity it supports thus no major impacts are expected as a result of sites' clearance activities.

3.2.3.7 Environmental and Social Standard 7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities;

ESS7 contributes to poverty reduction and sustainable development by ensuring that projects supported by the Bank enhance opportunities for Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities to participate in, and benefit from, the development process in ways that do not threaten their unique cultural identities and well-being.

Among the ESS7 objectives include:

- To ensure that the development process fosters full respect for the human rights, dignity, aspirations, identity, culture, and natural resource-based livelihoods of Indigenous Peoples/ Sub-Saharan African Historically Underserved Traditional Local Communities.
- To improve project design and promote local support by establishing and maintaining an ongoing relationship based on meaningful consultation with the Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities affected by a project throughout the project's life cycle.

Among the general requirements of ESS7 include:

11. A key purpose of this ESS is to ensure that Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities present in, or with collective attachment to, the project area are fully consulted about, and have opportunities to actively participate in, project design and the determination of project implementation arrangements. The scope and scale of consultation, as well as subsequent project planning and documentation processes, will be proportionate to the scope and scale of potential project risks and impacts as they may affect Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities.

During ESIA study, no Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities were identified near the proposed sites.

3.2.3.8 Environmental and Social Standard 8: Cultural Heritage;

This ESS sets out general provisions on risks and impacts to cultural heritage from project activities. ESS7 sets out additional requirements for cultural heritage in the context of Indigenous Peoples. ESS6 recognizes the social and cultural values of biodiversity. Provisions on Stakeholder Engagement and Information Disclosure are set out in ESS10.

Objectives of the ESS8 include:

- To protect cultural heritage from the adverse impacts of project activities and support its preservation.
- To address cultural heritage as an integral aspect of sustainable development
- To promote meaningful consultation with stakeholders regarding cultural heritage
- To promote the equitable sharing of benefits from the use of cultural heritage

ESS8 requires:

8. The environmental and social assessment, as set out in ESS1, will consider direct, indirect and cumulative project-specific risks and impacts on cultural heritage. Through the environmental and social assessment, the GoT will determine the potential risks and impacts of the proposed activities of the project on cultural heritage.

9. The GoT will avoid impacts on cultural heritage. When avoidance of impacts is not possible, the GoT will identify and implement measures to address impacts on cultural heritage in accordance with the mitigation hierarchy.

During impacts' assessment study and through communities and stakeholders' consultations, no heritage site was identified to be within or near the proposed sites for implementation of Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects

3.2.3.9 Environmental and Social Standard 10: Stakeholder Engagement and Information Disclosure

This ESS recognizes the importance of open and transparent engagement between the Borrower and project stakeholders as an essential element of good international practice. Effective stakeholder engagement can improve the environmental and social sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and implementation.

Objectives of ESS10 are:

- To establish a systematic approach to stakeholder engagement that will help Borrowers identify stakeholders and build and maintain a constructive relationship with them, in particular project-affected parties
- To assess the level of stakeholder interest and support for the project and to enable stakeholders' views to be taken into account in project design and environmental and social performance.
- To promote and provide means for effective and inclusive engagement with project-affected parties throughout the project life cycle on issues that could potentially affect them
- To ensure that appropriate project information on environmental and social risks and impacts is disclosed to stakeholders in a timely, understandable, accessible and appropriate manner and format

- To provide project-affected parties with accessible and inclusive means to raise issues and grievances, and allow Borrowers to respond to and manage such grievances

ESS10 requirements among others include:

6. The GoT will engage with stakeholders through- out the project life cycle, commencing such engagement as early as possible in the project development process and in a timeframe that enables meaningful consultations with stakeholders on project design. The nature, scope and frequency of stakeholder engagement will be proportionate to the nature and scale of the project and its potential risks and impacts.

7. The GoT will engage in meaningful consultations with all stakeholders. Will 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.

8 The process of stakeholder engagement will involve the following, as set out in further detail in this ESS: (i) stakeholder identification and analysis; (ii) planning how the engagement with stakeholders will take place; (iii) disclosure of information; (iv) consultation with stakeholders; (v) addressing and responding to grievances; and (vi) reporting to stakeholders.

The TACTIC project has prepared a specific Stakeholder Engagement Plan (SEP) for the proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects which guided consultations during the EIA scoping stage as a 1st round stakeholders' engagement and shall also guide during feedback stage/2nd round community/ies engagement. 1st round was purposely for stakeholders to air their views, comments and concerns on the type of Grains and fruit market and Improvement of Soweto and Sokomatola Market subproject sunder TACTIC program as indicated in chapter 5 of this ESIA report. 2nd round consultations shall be conducted as part of SEP to review how the draft design has implemented their aired views, comments and concerns

3.3 The World Bank ESH Guidelines

Once a member of the World Bank Group is involved in a project, adherence to the EHS Guidelines is mandatory as a matter of policy. The General EHS Guidelines are a set of technical reference documents which addresses "Good International Industry Practices" in four focus areas: 1) Environmental 2) Occupational Health and Safety 3) Community Health and Safety and 4) Construction and Decommissioning

The EHS Guidelines contain the performance levels and measures that are generally considered to be achievable in new facilities by existing technology at reasonable costs. Application of the EHS Guidelines to existing facilities may involve the establishment of site-specific targets, with an appropriate timetable for achieving them. The applicability of the EHS Guidelines should be tailored to the hazards and risks established for each project based on the results of an environmental assessment in which site-specific variables, such as host country context, assimilative capacity of the environment, and other project factors, are taken into account. Under TACTIC project, these guidelines shall be implemented during construction and operation of the Grains and fruit and Improvement of Soweto and Sokomatola Market subprojects.

3.4 National Policies

Environmental awareness in the country has significantly increased in recent years. The government has been developing and reviewing national policies to address environmental management in various sectors. Among others, the objective of these policies is to regulate the development undertaken within respective sectors so that they are not undertaken at the expense of the environment. The national policies that address environmental management as far as Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects concerned and which form the cornerstone of the present study include the following:

3.4.1 National Environment Policy 2021

The National Environmental Policy seeks to provide the framework for making fundamental changes that are needed to bring environmental considerations into the mainstream of decision making in Tanzania.

Some of the key objectives of the National Environmental Policy are to prevent and control degradation of land, water, vegetation, and air which constitute our life support systems; to raise public awareness and understanding of the essential linkages between environment and development and to promote individual and community participation in environmental action;

Chapter 3; section 51, paragraph (a), (b) and(c) of this policy states that the transport sector shall focus on improvement in mass transport systems to reduce fuel consumption and traffic congestion. It shall also control pollution and minimize transport emission of gasses, noise, dust and particulates; in addition, preventing disaster/spill and formulating response plans and standard for transportation of hazardous and dangerous material. Subject to this, is section 63, which dictates to use Environmental Impact Assessment tool to tackle immediate environmental problems, precautionary, anticipatory and preventive approaches that are the most effective social economic measure for achieving environmental sound development.

The Proposed Construction of Grains and fruit and Improvement of Soweto and Sokomatola Market subprojects has observed the policy objectives at various stages where there will be environmental impacts including transport emission gasses, noise, dust, particulates and spills, road accidents e.t.c. Prior to the execution of the proposed subprojects, Environmental and social impact assessment (ESIA) has been conducted including preparation of Environmental and Social Management Plan that will be i referred for the purpose of preventing and minimizing environmental and social impacts resulting from the project activities.

3.4.2 National Employment Policy 2008

Due to the growing number of unemployed labor force, the specific objective of the National Employment Policy was to provide strategies for employment creation and sustainability. Among its specific objectives is section 3.5 improvement and transformation of the informal sector for creating decent jobs, section 3.7 facilitates Tanzania job seekers to acquire appropriate skills and section 3.9 employment of individual through enhancing accessibility to business support services including capital, market access for private sector entrepreneurs including self-employers for increased productivity and income.

The project will contribute to the achievement of the objectives of this Policy. During the construction phase, approximately 150 – 200 direct employment opportunities are expected to be created for both skilled and unskilled labor. The project will also provide self-employment for food business and small retailers along the project site.

The project will contribute to the achievement of the objectives of this Policy. During the construction phase, approximately 150 - 200 direct employment opportunities are expected to be created for both skilled and unskilled labor. The project will also provide self-employment for food business and small retailers along the project site

3.4.3 National Land Policy, 1997

The policy requires that, in accordance with subsection 7.1.1, before any development activity is taken on the land, the government will ensure that permits, licenses, claims and rights for exploitation of natural resources are issued in line with land use policies, and environment conservation policies and programs.

Some of the key Objectives of the policy are presented in section 2.4 to ensure that land is put to its most productive use to promote rapid social and economic development of the country and section 2.8 to protect land resources from degradation for sustainable development.

On land tenure, the policy dictates in subsection 4.1.1 (I) c) that the rights and interests of citizens in land shall not be taken without due process of the law and paragraph (d) that full, fair and prompt compensation shall be paid when land is acquired.

On compensation for acquiring land, The Policy dictates In subsection 4.2.20 that in order to reduce problems, compensation for land acquired for public interest will be based on the concept of opportunity cost including (I) market value of the real property (ii) disturbance allowance (iii) transport allowance (iv) loss of profit or accommodation (v) cost of acquiring or getting the subject land (vi) any other cost or capital expenditure incurred to the development of the subject land.

The Proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will contribute to the achievement of the objectives of this Policy by promoting social economic development of the area through connection with chunya, mbalizi districts.

The proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will ensure that soil erosion measures are taken into consideration during construction to protect land resources from degradation for sustainable development.

In addition; all affected parties will be identified during the Resettlement Action Plan (RAP) and their properties will be fairly valued and timely compensated.

3.4.4 The Construction Industry Policy 2003

The National Construction Industry Policy aims to create an enabling environment for the development of a vibrant, efficient and sustainable local industry that meets the demand for its services to support sustainable economic and social development objectives. One of the key objectives of the Policy in section 7.2 (b) is to emphasize the development of an efficient and self-sustaining roads network that is capable of meeting the diverse needs for construction, rehabilitation and maintenance of civil works for trunk, regional, districts and feeder roads network.

Also subject to paragraph (c) to improve capacity of public sector and private sector clients so as to ensure efficient, transparent and effective implementation and management of

construction projects. The policy directs that the government shall ensure both local and donor procurement policies provide a comprehensive framework for fostering the local construction industry in Tanzania. And paragraph (g) to mobilize adequate resources from the public sector and private sector for construction and maintenance of public infrastructure.

The Proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will lead to the achievement of the policy's objectives by employing local consultants and contractors as part of capacity building strategy.

3.4.5 Human Settlement Development Policy 2000

The policy defines Human settlement as not simply housing, merely the physical structure of the city town or village but an integrated combination of all human activity processes including residence, education, health, work, culture, leisure and the physical structure that support them.

One of the key objectives of the policy in section 3.2(ii) is to promote level of provision of infrastructure and social services for sustainable human settlement development and (iii) to facilitate level of employment opportunities and eradication of poverty. The policy states that Infrastructure and services constitute the backbone of urban economies and economic activities. Therefore, all-weather roads for efficient transport are essential for increased productivity and the establishment of manufacturing industries. Lack safe and clean environment for terminal results in poor environmental conditions.

The proposed markets will provide efficient year-round business to traders. This will stimulate development of trade and increase accessibility to other economic areas.

3.4.6 National Water Policy 2002

One of the key objective of water policy in subsection 4.1.1 is to have in place fair and equal procedures in access to and allocation of water resources so that all social and economic activities are able to maximize their capacities; subsection 4.1.2 to have criteria for prioritization of water allocations so as to ensure that socio-economic activities and the environment receive their adequate share of the water resources on the basis of its availability, and to enable the sectors increase productivity and to mitigate conflicts.

Section 2 of this Policy explains that water is a basic natural resource for sustenance of life and for socio- economic development. Many social and economic activities rely heavily on availability of adequate supply of fresh water. As a sink, water sources are used as receptors for wastewater discharges from industrial, municipal and agricultural sources. Deliberate efforts are, therefore, needed towards protection and sustaining the resource and to ensure that it is used efficiently and effectively for the benefit of the present and future generation.

Chapter 4 of this policy dictates that all water abstractions and effluent discharges into water bodies shall be subject to a "water use permit" or "discharge permit" to be issued for a specific duration. Water use permits shall be issued only for a determined beneficial water use. Procedures, criteria and guidelines for issuing of the permits will be prepared and operationalized.

The construction activities of proposed Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will use water from different surface water sources and a water use/abstraction permit from the Lake Rukwa Basin Water Basin under the Ministry of Water shall be applied for. However, the contractor will be issued with a temporary water use

permit as well as wastewater discharge permit where necessary.

3.4.7 Policy on HIV/AIDS Policy 2001

HIV/AIDS is a major National crisis that affects all sectors at all levels. Therefore, one of the main objectives of the policy is to prevent transmission of HIV/AIDS through various strategies such as section

3.2 (a) i) to create and sustain an increased awareness of HIV/AIDS through targeted advocacy, information, education, and communication for behaviour change at all levels by all sectors. This hinges on effective community involvement and empowerment to develop appropriate approaches in prevention of HIV Infection, care and support to those infected and affected by the epidemic including widows and orphans.

The policy emphasizes a coordinated and effective multi sectoral approach towards curbing this epidemic and to mobilize adequate financial resources for HIV/AIDS activities, and calls forth for every sector to budget, raise funds and mobilize material and human resources for its own HIV/AIDS prevention and control activities.

HIV/AIDS awareness and education will be provided by the contractor to the workers and communities. The contractor shall be responsible for provision of free condoms to construction workers and voluntary HIV testing to both communities and workers

3.4.8 National Mineral Policy 2009

The Mineral Policy seeks to address the challenges of the mineral sector and increase the mineral sector's contribution to the GDP and alleviate poverty by integrating the mining industry with the rest of the economy.

One of the key policy objectives of the Policy in section 4.0 (a) is to improve the economic environment in order to attract and sustain local and international private investment in the mineral sector; Efficient and reliable infrastructure facilities such as Markets that's accelerate commissioning of new mining projects and increase profits to be taxed by the Government. The policy emphasizes in section 5.1(ii) that the Government in its own or in collaboration with the private sector will provide reliable infrastructure to service the mining industry where feasible.

The proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will lead to the achievement of the objectives of the mining policy by constructing new markets which promotes good economic environment for the development of mining sector. Either, the project is expected to use locally available sources for sand, gravel, aggregates e.t.c as part of implementation of policy's objectives.

3.4.9 National Gender Development Policy 2000

The main objective of the Policy in section 12 is to create an enabling environment for women and men to fulfil their roles in society based on gender needs. Also, this policy aims at balancing the gaps in women's participation in development activities. The policy enables Tanzanian women to participate effectively and efficiently in identifying their potential and identifying problems and resolving them by using available resources to supplement their income and alleviate poverty as a whole and bring a better life. This includes the ability to make decisions in various areas of implementation. The policy has taken into account that in achieving those goal men must fulfil their roles in our communities and thus engage with women in various social and economic roles.

The policy dictates in section 34 that in order for both women and men to be involved, to ensure that the contribution of women and men to the development of the nation is recognized and appreciated and to ensure both men and women actively participate in development projects.

The Proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects complement the objectives of this policy by ensuring that both men and women are involved during planning, construction and operation for success of the proposed subprojects

3.4.10 National Transport Policy 2011

The vision of the policy is to have efficient and cost-effective domestic and international transport services to all segments of the population and sectors of the national economy with maximum safety and minimum environmental degradation.

And the mission is to develop safe, reliable, effective, efficient and fully integrated transport Infrastructure and Operations which will best meet the needs of travel and transport at improving levels of Service at lower costs in a manner, which supports government strategies for, socio-economic Development whilst being economically and environmentally sustainable.

The proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects is in line with the policy's vision and mission since it will provide service to the urban population of Mbeya city, the Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects shall facilitate economic boost along the project areas through provision of reliable and timely transportation people for goods and social welfare.

3.4.11 National Population Policy 2006

Among the Policy Objectives is: To harmonize population and economic growth and among the Policy Direction is to Enhance awareness to the leaders and communities about the linkages between population, resources, the environment, poverty eradication and sustainable development.

The proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects are in line with the policy's objectives and direction. The population along the markets will benefit economically from the upgrading of the Soweto and Sokomatola Market subprojects that shall provide conducive environment for economic growth even during rain seasons.

3.4.12 The National Investment Promotion Policy, 1996

The National Investment Promotion Policy encourages protection of environment in line with the countries socio-economic policies. Under the policy, investors are required to undertake activities in a manner that best contributes to consumer and environmental protection. The investors are also encouraged to use local raw materials/components where possible.

The Proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subproject will lead to the achievement of the policy's objectives and ensure compliance with the development as far as environmental protection is concerned. The project design has taken care of use of local materials to support socio economic development within the area

3.4.13 The National Cultural Policy (1997)

The policy framework for culture in Tanzania includes the rather broad general Cultural Policy dating back to 1997, which covers heritage, arts and craft and other cultural sectors of activity. The National Strategy for Growth and Reduction of Poverty for Tanzania, MKUKUTA II, recognize the importance of culture in the national development strategy. Its Goal 5 indicates that “National culture and identity are at the heart of development policy”. The results targeted within this goal are:

- Social cohesion, belonging, and national identity promoted and enhanced;
- Attitude toward hard working, self-confidence, and self-esteem, creativity, innovation and Moral integrity promoted and enhanced;
- Culture and heritage of the country preserved and promoted; and
- Principles of cultural diversity and inter-cultural dialogue upheld.

During implementation of the Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects cultural values in all areas should be respected by construction contractors.

3.4.14 The Energy Policy of Tanzania (URT, 2015)

This policy outlines measures to adopt clean technology and minimize pollution in developing Tanzania’s energy sector. It focuses on utilization of various energy resources among others include water, gas, coal, petroleum and wind in a sustainable and environmentally friendly manner. The policy states that energy is a prerequisite for the proper functioning of nearly all sub-sectors of the economy. It is an essential service whose availability and quality can determine the success or failure of development endeavours.

The policy objectives are to ensure availability of reliable and affordable energy supplies and their use in a rational and sustainable manner. The proponent will abide this policy by ensuring energy is used wisely and the use of energy saver equipment such as light bulbs, refrigerators and others appliances.

3.4.15 Tanzania Development Vision (2025)

The National Vision 2025 foresees the alleviation of widespread poverty through improved socio-economic opportunities, good governance, transparency and improved public sector performance. These objectives not only deal with economic issues, but also include social challenges such as education, health, the environment and increasing involvement of the people in working for their own development. The thrust of these objectives is to attain a sustainable development of the people.

Through implementation of the proposed Construction of Grains and fruit and Improvement of Soweto and Sokomatola Market subprojects, under TACTIC, the GoT through PO-RALG will contribute towards realisation of the Vision’s objectives by making conducive environment for all passengers on achieving their goals

3.4.16 The National Economic Empowerment Policy, 2004

Policy is intended to address all economic empowerment needs of the individual citizens of Tanzania and local companies in which Tanzania citizens hold not less than fifty percent of the shares. The policy takes on board farmers, livestock keepers, fishermen, employees,

traders as well as other groups of individuals in various economic activities. The policy put in place the general guidelines for the information of strategies to be used by respective sectors depending on the prevailing circumstances. In this respect, each sector is enjoined to come up with concrete implementation strategies

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

The NSGRP-II paper recognizes that reliable infrastructure such as u Construction of Grains and fruit and Improvement of Soweto and Sokomatola Market subprojects is critical for the attainment of the NSGRP II which was launched in 2010 and Sustainable Development Goals which were laid down by the United Nations in 2015. These SDGs are such as Goal No.1 to end poverty, Goal No. 2 on zero hunger, Goal No. 3. To ensure Health life and promote wellbeing for all at all ages, Goal No. 5 on Gender equality and Goal No. 9 on Industry, Innovation and Infrastructure which fosters the importance to build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

The TACTIC project will focus in the reduction of poverty for both men and women and address issues of gender discrimination and GBV. Once the Construction of Grains and fruit and Improvement of Soweto and Sokomatola Market subprojects have been constructed, various activities such as transportation of agricultural products and urban irrigation will be enhanced thereby increasing employment and revenues and eventually improving livelihoods. The NSGRP also recognizes the role of other sectors in poverty eradication and the need for mainstreaming environment as one of the crosscutting issues in the sector.

3.4.18 The National Climate Change Strategy (NCCS) - 2012

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

- To achieve the stated goal, the following specific objectives have been set.
- To build the capacity of Tanzania to adapt to climate change impacts.
- To enhance resilience of ecosystems to the challenges posed by climate change.
- To enable accessibility and utilization of the available climate change opportunities.
- To enhance participation in climate change mitigation activities that lead to sustainable development.
- To enhance public awareness on climate change.
- To strengthen information management on climate change.
- To enhance institutional arrangements to adequately address climate change and
- To enhance mobilization of resources in particular finance to address climate change.

Design and implementation of Construction of Grains and fruit and Improvement of Soweto and Sokomatola Market subprojects shall include climate change adaptation measures for infrastructural resilience to climate change.

3.5 Legal Framework

3.5.1 Environmental Management Act (2004) as amended in 2016 and 2021

One of the key objectives of this Act in the provisions of Part II, section 7(1) is to provide for and promote the enhancement, protection, conservation and management of the environment. In order to To attain the objective of this Act several principles should be observed including

subsection (3) e) Public participation principle which requires the involvement of people in development project policies, plans, and processes for the management of the environment. Subsection (3) h) the generation of wastes be minimized, wherever practicable wastes should in order of priority be reused, re-cycled, recovered and disposed safely in a manner that avoids creating adverse effect or if this is not practicable is least likely to cause adverse effects. The proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will comply with the objective of this Act by ensuring effective implementation of the Environmental Management Plan including public participation in project development and waste management plan in each phase of the project development.

The provisions of Part V section 60(1) requires that an applicant for water use permit issued under relevant laws governing management of water resources, abstraction and use of water shall be required to make a statement on the likely impact on the environment due to the use of water requested.

The provisions of Part VI section 81(1) requires that any person being a proponent or a developer of the project or undertaking of any type specified in the third schedule of this act to which environmental Impact Assessment is required to be made by the law governing such project or undertaking or in the absence of such law by regulation made by the minister shall undertake or cause to be undertaken at his own cost environmental Impact Assessment study.

The proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects are listed as the project, which requires EIA in the third schedule section 3 of this Act. The project complies with the provisions of this section by conducting EIA prior to project design and execution.

The provisions Part VI section 83(1) require that Environmental Impact Assessment shall be carried out by experts or firms of experts whose names are registered as such by the council. The projects Complies with the provisions of this section by ensuring that the Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects, EIA has been conducted by registered experts under a registered firm of experts known as Norplan (T) Limited

The provisions of Part VIII, section 106 (6) dictates that, it shall be an offense for any person to discharge a contaminant or to emit noise without taking practicable measures prescribed in the regulation. The Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will comply with the provision of this section by ensuring that all wastes generated during execution of the project are collected re-used or disposed as required by the law and as recommended in the Environmental Management Plan.

Subject to the provisions of section 110(2), which requires that a person who discharges any hazardous substances, chemical oil or mixture containing oil in any water or any other segment of the environment, commits an offense. Moreover (4) it will be the duty of every organization producing, transporting, trading, storing and disposing of such wastes.

The proposed subprojects will comply with the provisions of this section by ensuring proper management of hazardous substances, chemicals and oils as recommended in the Environmental Management Plan.

3.5.2 Water Resources Management Act No 11 of (2009)

The Act provides a description of the water resource management framework in Tanzania including roles and responsibilities of every actor and related stakeholders. One of the Key objectives of this Act in Part II section 4 (1) is to ensure that the nation's water resources are protected, used, developed, conserved, managed and controlled in ways which take into account the fundamental principles of sustainability including subsection (h) preventing and controlling pollution and degradation of water resources. The proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will adhere to the objective of this Act by ensuring that water sources are protected from pollution during construction.

The provision of Part VI, section 39(1) requires that the owner or occupier of land on which any activity or process is performed which is likely to cause pollution of a water source, shall take all reasonable measures to prevent any such pollution from occurring, continuing or recurring. The proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will comply with this Act by adhering to proper waste management practices during Construction of markets structures.

The provision of Part VII, section 43(1) requires that any person who diverts, dams, stores, abstracts or uses water from surface or underground water source, or for any such purpose constructs or maintains any works, shall apply for a Water Use Permit in accordance with this Act. In addition, subject to section 45(2) The Basin Water Board may grant the applicant a temporary Water Use Permit for any purpose under such conditions as may be deemed fit. In addition to section 48 (b) as the user of water use permit granted under this Act you are required to prevent any damage to the source from which water is taken, or to which water is discharged after use

The Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will comply with this Act; water will be obtained from streams and river, which shall require water use permit to be granted under requirement of this Act, and ensures conservation of its water sources within or near the project site during construction phase.

The provisions of Part VIID, section 63(1) requires that a person who wishes to discharge effluents from any commercial, industrial or agricultural source or from any sewerage works or trade waste systems or from any other source into surface water or underground strata shall apply to the Basin Water Board for a Discharge Permit in accordance with this Act.

The Proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects shall comply with this Act by obtaining water abstraction permit; drilling permit and discharge permit as required by this provision so as to ensure water abstraction from sources and liquid waste are well managed.

3.5.3 Occupational Health and Safety Act (2003)

This act provides guidance on the health and safety administrative system and responsibilities of every actor, requirements and procedures for registration of workplaces, safety provision, health and welfare provisions, safety special provision, hazardous material and processes, chemical handling provisions, offenses, penalties and legal proceedings.

The provisions of Part III, section 15 requires that there shall be a register of workplace in which inspector shall enter such particulars in relation to every work place

The provisions of Part IV section 24, requires that all employees will be provided periodic occupational medical examination carried out by a qualified occupational health physician for fitness for employment and all the expenses and prescribed fee will be paid by the employer.

Also subject to the provisions of Part IV, section 50(1)a), the employer shall ensure that the workplace is equipped with fire extinguishers which shall be adequate and suitable having regard to fire risks; and paragraph (b) stocks of inflammable materials should be kept in a safe place

The proposed subproject will comply with the provisions of part IV of this Act by ensuring that all protection needed for safety of employees are provided as required.

The provisions of Part V, section 54(1), requires that the employer shall ensure supply of safe and clean drinking water that is readily accessible to all employees;

The Proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will comply with the provisions of Part V of this Act by ensuring that all requirements are met including providing clean drinking water and hygiene services.

The provisions of Part X, section 89(1) requires that there should be posted an abstract of this Act at work place and any other notice and document required by this Act in both Kiswahili and English. Subject to section 103 requires that no employer shall dismiss an employee, reduce rate of his remuneration, alter terms or his employment or position to his advantages by the reason of the fact or because he suspects or believes whether or not the suspicion is justified or not, However in subsection (2) the employer may terminate the employment of employee if is unable to work for reasons of health condition.

The proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will comply with the provisions of part X of this Act by ensuring that all safety rules are posted and understood by construction workers, safety policies are developed and implemented, employment rights are observed and Health and Safety protection measures are adhered to

3.5.4 HIV and AIDS (Prevention and Control) Act No. 28/08 (2008)

The HIV and AIDS Act gives provision of general duties by specifying general responsibilities of every actor, emphasize on provision of public education and programs on HIV and AIDS, testing and counselling, confidentiality, health and support services, stigma and discrimination, rights and obligations of persons living with HIV and offences and penalties.

The provisions of Part II, section 4(1) a) requires that Every person, institution and organization living, registered or operating in Tanzania shall, be under the general duty to promote public awareness on causes, modes of transmission, consequences, prevention and control of HIV and AIDS; also subsection (2) a) and b) integrate or priorities on HIV and AIDS in their proceedings and public appearances; and advocate against stigma and discrimination of people living with HIV and AIDS. The proposed project will comply with the provisions of this Act by ensuring that HIV and AIDS awareness and education is provided to workers and all people living along the terminal where the project is taking place.

Subject to the provisions of section 6 (1) that every ministry, department, agency, local government authority, parastatal organization, institution whether public or private, shall design and implement gender and disability responsive HIV and AIDS plans in its respective area and such plans shall be mainstreamed and implemented within the activities of such sector. Subject to subsection (4) every sector preparing a plan or programme under this section shall before implementation of such plan or programme, submit them to TACAIDS for coordination and advice.

HIV/AIDS awareness and education will be provided by the contractor to the workers and communities. The contractor shall be responsible for provision of free condoms to construction workers and voluntary HIV testing to both communities and workers.

3.5.5 The local Government (Urban Authorities) Act, 1982

The local government Laws (Miscellaneous Amendments) provides amendments of local government (district authorities) Act, amendment of local government Act (urban authorities), amendment of local government (elections Act), amendment of the regional administration Act. The law has specified roles and responsibilities of every authority and related stakeholders.

The provisions of Part II, section 2, of this Act gives instructions that this part shall read as one with the Local Government (District Authorities) Act, in this Part referred to as the "principal Act". The principal Act is amended in section 54A (a) in Part III, section 20 (h) of this Act requires to provide and secure enabling environment for successful performance of the duties of the urban authority; paragraph (i) ensure compliance by all persons and urban authorities with appropriate government decisions, guidelines in relation to the promotion of the local government system; and paragraph (j) do such acts and things as shall facilitate or secure the effective, efficient and lawful execution by the urban authorities of the statutory or incidental duties."

Proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will comply with the provisions of this Act by ensuring consultation with all levels of local government, including Mbeya city council, ward executive officers and Mtaa executive officers to ensure compliance by all levels of authority in relation to the promotion of the local government system

3.5.6 Public Health Act of 2008

An Act provide for the promotion, preservation and maintenance of public health with the view to ensuring the provision of comprehensive, functional and sustainable public health services to the general public and to provide for other related matters. Section 54 of this law states that "*A person shall not cause or suffer from nuisance, likely to be injurious or dangerous to health, existing on land, premises, air or water*".

Therefore GoT through PO-RALG shall develop this project so that nobody suffers from nuisance or cause danger to people's life during all phases of the project and especially operation phase where vehicles coming in and out of the terminal will be frequently in operation, also generation of organic waste through vending of food related products shall take place at large.

3.5.7 Land Act Cap 113 of 2019

This Act has provided general amendments of the Land Act of 1999 by adding section 2

which identifies a “sale” be used as transfer of interest in or over land on condition attached to a granted right of occupancy. Section 19 requires that a person who is in a corporate body or company made under company ordinance including a corporate body the majority of whose shareholders or owners are non- citizens, may only be offered the right of occupancy approved by Tanzania Investment Act 1997 to facilitate compliance with development. Section 20 which clarifies that land acquired by non-citizen will have no value except shall be paid compensation on unexhausted improvement. Section 37 explains the sale of right of occupancy and repeal and substitution of part X that gives guidance on mortgage, Mortgage right of occupancy, lease, sublease and subsequent mortgage. In addition, explains rights and responsibility of all actors and stakeholders including mortgagor and mortgagee.

The Proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will use the land that is owned by Mbeya City Council and earmarked on the Master plan; hence, there will not be any land acquisition to this subproject.

3.5.8 Land Acquisition Act Cap 118 2019

The act offers clarification on the power of the president to acquire land in the public interest or national economy, compensation on land acquired and related conditions, notice and proceedings where the land is withheld and declaration of right of occupancy.

The provision of part II, section 3 clarifies that the President may, subject to the provisions of this Act, acquire any land for any estate or term where such land is required for any public purpose. Subject to paragraph (a) subsection (1) section 5 which clarifies that as seen fit by the president that land in certain locally should be examined for the view to its possible acquisition for public interest then workmen authorized by the minister in his behalf are then allowed to enter the land for survey and paragraph (d) to clear, set out and mark the boundaries of the land proposed to be taken and the intended line of the work proposed.

Subject to subsection (2) that as soon as conveniently may be after any entry made under subsection (1), the Government shall pay for all damage done in consequence of the exercise of any of the powers conferred by subsection (1), and, in the case of a dispute as to the amount to be paid, either the Minister or the person claiming compensation may refer such dispute to the Regional Commissioner for the region in which the land is situate and the decision of the Regional Commissioner shall be final.

The provisions of part II (b), section 11 subsection (1) required that, where any land is acquired by the President under section 3 the Minister shall on behalf of the Government pay in respect thereof, out of moneys provided for the purpose by Parliament, such compensation as may be agreed upon or determined in accordance with the provisions of this Act. Section 12(2) whether such land is in an urban area or in a rural area, any compensation awarded shall be limited to the value of the unexhausted improvements of the land.

Also subject to the provisions of paragraph (a-d) section 30 clarifies that it shall be lawful for the President to require any corporation to which land has been declared for use to enter a contract with the Government with regard to payment of compensation cost of acquired land, terms of land use, time of land to be used and terms to which the public will be entitled to use and benefit from the work done by corporation.

The provisions of section 36, subsection (1) requires that the minister will grant development proponent a right of occupancy over the land for proposed project, the provision of section 37(3) requires that the development proponent make full disclosure of all trust and other

referred interests on the land in a specified time without which or by falsifying the statement shall be convicted. Section 38(1) and (2) specify that no fees or stamp duty shall be paid under land ordinance for such granted right of occupancy on the first registration.

The Proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will use the land that is owned by Mbeya City Council and earmarked on the Master plan; hence there won't be any land acquisition to the Subproject

3.5.9 Contractors Registration Act (2003)

This Act provides general provisions on roles and responsibility of contractor's Board and every other related actor, gives guidance on registration procedures and necessary conditions.

The provisions of section 7 subsection (1) part III, states that the Registrar shall keep and maintain registers of contractors of different types, categories and classes in which the name of every person entitled to have his name in them as a registered contractor. Subject to this is subsection (6) in the case of an individual, the qualifications and skills as prescribed by the Board necessary to enable him to discharge in satisfactory manner the obligations which he may reasonably be expected or called upon to undertake as a contractor belonging to the category, type and class in respect of which registration is being sought.

The provision of section 10(3) requires that upon registration, the person shall be issued with a certificate of registration indicating the registration number, type, and category, and class, date of registration and duration of registration. Subject to this provision is section 32b) which gives warning that any fraudulently procures or attempts to procure, whether for himself or for any other person, registration as a contractor or a trading license for a contractor; or commits an offense.

The proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will ensure compliance with the provisions of this Act by employing contractors that are registered following the procedures underlined by this Act and with relevant certificates of registration

3.5.10 Engineers Registration Act 1997 (Amendments 2007)

This Act provides general Amendments of engineers' registration Act of 1997 by deleting and substituting new paragraphs, sections and subsections including redefining engineering projects, organizations, institutions, registered engineers and firms. Also clarify the responsibility of the Board, engineers and firms' registration procedures and conditions as well as adding substitutions to help engineers graduate and technicians to get opportunities of being linked to employers and learning.

The provision of subsection 7; the principal Act is amended by adding immediately after section 12 the new section 12A (1) every professional engineer or consulting engineer who has been registered under this Act, shall in addition to such registration possess a practicing certificate. Subject to subsection (3) a person who practices engineering activities without valid practicing certificate, commits an offense and can be convicted

Provision of subsection 9; Section 14 of the principal Act is amended in paragraph (a) by deleting subsection (1) and substituting for subsection (1) which requires that a person shall not employ as an engineer any person who is not a professional engineer or consulting engineer, or cause to undertake engineering works or services without employing the services

of a professional engineer or consulting engineer. Subject to subsection (5) where an employer employs any person as a trainer engineer or incorporated engineer, this section shall not apply to that employee's employer.

The Proposed subproject under TACTIC project has employed Norplan Limited, a registered Engineering Consulting Firm to conduct studies and design of this infrastructure.

3.5.11 Employment and Labor Relations Act (2004)

This Act gives provisions for fundamental rights of employees including child labor, forced labor discrimination and freedom of association; Employment standards including hours, remuneration, leave and unfair termination of employment; Trade unions, employer association and federation; Organizational rights; collective bargaining; strikes and lock outs and dispute resolutions.

The provision of Part II subpart A, section 5 (1) requires that no person shall employ a child under the age of fourteen years, and subsection (2) a child under eighteen should not be employed in a workplace considered hazardous. Also subject to Subpart B section 6 (1) which clarifies that any person who procures, demands or imposes forced labour, commits an offense. Subpart C, subsection 7 (2) requires that an employer shall register, with the Labour Commissioner, a plan to promote equal opportunity and to eliminate discrimination in the work place. And Subpart D section 9 (1) a) every employee shall have the right to form and join a trade union; and section 10(1) a) every employer shall have the right to form and join an employer's association;

The provisions of Part III, subpart A, section 14(1) requires that a contract with an employee shall be of the specified period of time and task. Section 15(1) requires that an employer shall provide an employee with a written statement of particulars and a statement of employee's right in a prescribed form. Subpart B, section 19(1), (3) and (5) requires that an employer shall not require or permit an employee to work more than 12 hours in any day or work overtime unless with agreement and be paid not less than one- and one-half times the employee's basic wage for any overtime worked. Section 20 (2) (a) and (b) requires that pregnant employees should not work night shift 2months before their due date as well as nursing mothers 2months after birth; subsection (4) an employer shall pay an employee at least 5% of that employee's basic wage for each hour worked at night as an overtime. Section 21(1) and 24(1) dictates that employees shall be given a 60 minutes break in a working day and a day off for rest and 24 hours rest a week. Subpart C section 26(1) and 28(1) a) requires calculation of wage rates applicable hourly, daily, weekly or monthly rate of pay, no deduction shall be made unless agreed by the employee for respect of debt. Subpart D section 31 (1) and (4) an employee should be given leave with paid remuneration as if he was working. Section 32(1) requires that an employee shall be entitled to sick leave and section 33(1) three months maternity leave. And Subpart E, section 37(1) it shall be unlawful for an unfair termination of an employee.

The provisions of Part IV, section 45 (1) Employer shall register into a trade union or employers' association. Part V, section 61(1) an employer shall deduct dues of a registered trade union from an employee's wages if that employee has authorized the employer to do so in the prescribed form. Section 67 (1) recognition as exclusive bargaining agent of employees and section 68(1) an employer or employers Association shall bargain in good faith with a recognized trade union.

The proposed subprojects under TACTIC will employ approximately 150 -200 direct employment, notwithstanding the provisions of this Act, the project will comply with the provisions of this Act by ensuring that all the requirements, restriction and rights of employees are respected and guided as underlined by this Act.

3.5.12 Urban Planning Act (2007)

This Act provides the provisions of fundamental principles of urban planning, institutional framework and responsibilities of every actor, the planning processes, land acquisition and compensation and supplementary planning power.

The provisions of Part II section 3a) states that with a view to giving effect to the fundamental principles of the National Land Policy and the Human Settlements Development Policy, all persons and authorities exercising powers, applying or interpreting the provisions of this Act shall be under the duty to improve the level of the provision of infrastructure and social services for sustainable human settlements development.

Provision of part IV, section 29(I) requires that no person shall develop any land within a planning area without planning consent granted by the planning authority or otherwise than in accordance with planning consent and any conditions specified. Subject to the provision of subsection (3) that Where in connection with an application for planning consent to develop land and subject to any other relevant law, the planning authority is of the opinion that proposals for industrial location, dumping sites, sewerage treatment, quarries or any other development activity shall have injurious impact on the environment, the applicant shall be required to submit together with the application of an environmental impact assessment report.

The provisions of Part IV, section 52(1) requires that no person shall carry out a development on a conservation area without consent of the planning authority. Subject to the provision of part V, section 63(2) that in giving planning consent under the provisions of this Act to the temporary development of any land within a planning area, the planning authority concerned may give such planning consent on the condition that the value of such temporary development shall not be taken into account for the purposes of assessing any compensation payable to the landholder of such land and, in such case the value of any temporary development shall not be taken into account for the purpose of assessing compensation payable. Subject to section 64(1), However if land is injuriously affected by the coming into operation of the development project compensation will be done, and section 67 that the compensation under this section shall be paid as provided for under the Land Act and the Village Land Act.

Proposed Construction of Grains and fruit markets and Improvement of Soweto and Sokomatola Market subprojects will ensure to comply with the provisions of this Act by consulting planning authority for fulfilment of all required procedures, has conducted Environmental Impact Assessment and the report will be submitted to the authority, will also ensure compensations are paid at rates required by this Act

3.5.13 The Workers Compensation CAPS 263 R.E 2015.0

This Act provides general provisions for rights for workers to compensate for occupational accidents and diseases. It includes workers compensation funds, board of trustees and its responsibility, right of compensation and protection, claims for compensations and relevant procedures, determination of compensation including medical and rehabilitation benefits and the roles and responsibilities of an employer to ensure workers compensations and settling of

disputes.

The provisions of Part I section 3 provides the objectives of this Act including Paragraph (a) to provide for adequate and equitable compensation for employees who suffer occupational injuries or contract occupational diseases arising out of and in the course of their employment and in the case of death, for their dependents.

The provision of Part IV section 19 (1) requires that where an employee has an accident resulting in the employee's disability or death, the employee or the dependents of the employee shall, subject to the provisions of this Act, be entitled to the compensation provided under this Act. Subject to section 20 that any accident during the conveyance of an employee to or from his place of employment for the purpose of his employment by any means of conveyance shall be compensated. Also subject to provisions of section 22 (1) Where an employee contracts a disease and the disease has arisen out of and in the course of the employee's employment, the employee shall be compensated

Subject to the provision of Part VI section 58 (I) the manner in which calculation for compensation shall be done will be through calculating the earnings of an employee in the monthly rate at which the employee was being remunerated by the employer at the time immediately before the accident.

Provisions of Part VIII section 71 (1) requires that an employer carrying on business in Tanzania within the prescribed period shall register to the Director General in the prescribed form and shall submit prescribed particulars as he may require, and section (4) that failure to do that will result in conviction. Subject to the provision of this section 74 that employer will be assessed by the Director General according to a tariff of assessment calculated on the basis of the percentage of annual earnings of the employer's employees as the Board may with due regard to the requirements of the Fund for the year of assessment deemed necessary.

Provision of section 76(1) requires that where a mandatory in the course of or for the purposes of his business enters into an agreement with a contractor for the execution by or under the supervision of the contractor of the whole or any part of any work undertaken by the mandatory, the contractor shall, in respect of the employees of the contractor employed in the execution of the work, register as an employer in accordance with the provisions of this Act and pay the necessary assessment.

The provision of section 78 requires that an employer or the relevant trade union shall notify any employee who is injured in an accident or who contracts an occupational disease of his rights and the procedures to be followed in order to claim compensation under this Act.

Proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects under TACTIC will ensure compliance with the requirements of this Act by ensuring that the contractor for project execution will register as an employer and pay the necessary assessment fees as required by this Act. Also, throughout project execution, employees' rights as regard to compensation in case of occupational accidents or disease will be done according to the provision of this Act

3.5.14 The Sexual Offenses Special Provisions Act 1998

An Act provide special provisions in regard to sexual and other offences to further safeguard the personal integrity, dignity, liberty and security of women and children.

The provision of Section 138D subsection (3) requires that for the avoidance of doubt,

unwelcome sexual advances by words or action used by a person in authority, in a working place or any other place, shall constitute the offence of sexual harassment.

Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects under TACTIC will ensure compliance with the provisions of this Act by ensuring that sexual harassment offenses are translated at work place for every employee to know their rights

3.5.15 Law of Marriage Act, CAP 29 2019

This Act provides the general provisions of Marriage, marriage registration, annulments and divorces and evidence of property, rights, liabilities and status marriage as well as matrimonial proceedings and offenses.

Proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects under TACTIC will ensure compliance with this Act by respecting marriage, employees will be required to respect their marital status and of others. In addition to this, employees and the public will be offered regular HIV, AIDS, gender education, and awareness

3.5.16 Law of the Child Act CAP 13 2019,

This Act provides general provisions of rights and welfare of the child including care and protection of a child's conditions. Also clarifies responsibilities of different actors including parents in ensuring the rights of a child whether at home, foster home, school, institutionalized care, and workplace or in custody.

The provision of part VII, Section 88, states the minimum age at which a child may commence an apprenticeship with a craftsman shall be fourteen years or after completion of primary school education

The provision of Part II section 12 requires that a person shall not employ or engage a child in any activity that may be harmful to his health, education, mental, physical or moral development.

The provisions of Part VII, section 78(1) a person shall not employ or engage a child in any kind of exploitative labor. Subject to the provision of subsection (2) that every employer shall ensure that every child lawfully employed or engaged in accordance with the provisions of this Act is protected against any discrimination or acts which may have negative effect on him taking into consideration his age and evolving capacities. In addition to section 79(1) the child shall not be employed or engaged in a contract of the service performance which shall require a child to work at night. And subject to provision of section 81 (1) a child has a right to be paid remuneration equal to the value of the work done.

Proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects under TACTIC will comply with the provisions of this Act by ensuring no child is employed, not involve child labour or impose a forced child labour in any phase of project execution

3.5.17 Land Use Planning Act (2007)

45. – (1) An approved plan published under section 38 shall apply to the area or zone to which

it relates, whether or not it is embodied in a local government authority by-law, and every person, agency or the relevant planning authority shall comply with the requirements of the approved plan.

(2) Upon approval of the plan and, unless the planning authority otherwise determines, no development shall take place on land unless it is in conformity with the approved plan.

47. – (1) Any landholder or occupier of land shall take all steps necessary to ensure voluntary compliance with the aspects of an approved plan that are relevant to activities carried out on the land he holds or occupies.

Part VII section 48(I) of the Act also stipulates that “Where it comes to the notice of planning authority that the development of land has been, or is being carried out after the commencement of the Act, otherwise than in accordance with applicable land use plan, the planning authority may serve an enforcement notice to the owner, occupier or developer of that land.

The proposed sites for Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects are compatible with the current land use master plan of the area.

3.5.18 The Companies Act, 2019

This Act provides for, among other issues, more comprehensive provisions for registration and control of companies, associations and related matters. With reference to this Act, any two or more persons associated for any lawful purpose may, by subscribing their names to a memorandum of association and otherwise complying with the requirement of the Act in respect of registration, form an incorporated company with or without limited liability. The requirement of this Act had been observed by proved tender to company registered at BRELA

3.5.19 Water Supply and Sanitation Act, 2019

The Water Utilization and Sanitation Act, (No 12), 2009, as amended (2019) is the principal legislation aiming to promote and ensure the right of every person in Tanzania to have access to efficient, effective and sustainable water supply and sanitation services for all purposes by considering the following principles;

- a) Creation of an enabling environment and appropriate incentive delivery of reliable, sustainable and affordable water supply and sanitation services;
- b) Delegation of management functions of water supply and sanitation to the lowest appropriate levels considering the local government administrative systems;
- c) Ensuring that water sanitation authorities are financially and administrative autonomous and sustainable;
- d) Transferring ownership of water supply schemes in rural areas the respectively communities and enabling all the beneficiaries and stakeholders to participate in respectively in the management of community water supply schemes;
- e) Enabling mechanism to ensure that the communities meet the cost of operation and maintenance of their water supply systems and contribute to the cost thereof;
- f) Promotion of public sector and private sectors partnership in provision of water supply and sanitation service;
- g) Establishment an enforcement of standard of service in water supply and sanitation service;
- h) Regulation of suppliers of water supply and sanitation services.
- i) Protection and conservation of water resources and development and promotion of public health and sanitation; and
- j) Protection of the interests of customers

The relevancy of this legislation to this project is the obligation of the project proponent to ensure protection and conservation of water sources through avoiding discharge of wastes to water sources or water bodies. Therefore, Mbeya City Council shall abide to the provisions of this Act and managing all waste water generated during the implementation of project

3.5.20 The Social Security Regulatory Authority Act, 2015

The Social Security Regulatory Authority Act, No 8 of 2015, issues these Social Security Guidelines in accordance with section 5(1) of part II of the Act. It is very important to note that these guidelines apply to all schemes regardless of their establishing authority

The objective of these Guidelines are to

1. Promote and maintain good governance
2. Establish standards for corporate governance processes and structures
3. Provide guidance to Trustees for proper discharge of their fiduciary responsibilities
4. Promote and maintain public confidence in Social Security Scheme

Therefore, the Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market under TACTIC will adhere to this law by ensuring all the guidelines are adhered as stated

3.5.21 The Environmental Management (Hazardous Control and Management) Regulation 2021

The construction contractor shall abide to all hazardous waste control measures by ensuring all hazardous waste during construction phase are managed as per the Hazardous waste management guidelines and operation phase of the project all vehicles will be provided with hazardous waste management guidelines to ensure no waste oil is discharged at the markets area.

3.5.22 The Employment and Labor Relations Act Cap 366 R.E 2019.

The Act makes provisions for core labor rights, establishes basic employment standards, provides a framework for collective bargaining and provides for the prevention and settlement of disputes and provides.

Section 5(1)(2)(3) provides for the age classification of child labour and type of work to be employed without prejudicing his/her social development. Also Section 7(1) provides for the details on conditions of a good and reliable employment environment.

Therefore, the Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects under TACTIC will adhere to this law by not employing minor or by employing skilled personnel in areas where there is a need of having skilled personnel and by observing all rights of employees are observed.

3.5.23 The Environmental Management (Standards for the Control of Noise and Vibration Pollution) Regulations, 2014.

The Regulation enforce the control of noise and vibration level on the facility Regulation 7 (1) provides that Except as otherwise provided in these Regulations, no person shall make or cause to be made any loud, unreasonable, unnecessary or unusual noise that annoys, disturbs, injures or endangers comfort, repose, health or safety of others and that of the environment.

Regulation 8(1) except as otherwise provided in these Regulations, no person shall (a) make cause to be made excessive vibrations which annoy, disturb, injure or endanger the comfort, repose, health or safety of others and the environment or (b) Cause to be made excessive vibrations which exceed 0.5 centimetres per second beyond any source property boundary or 30 meters from any moving source.

3.5.24 The Environmental Management (Soil Quality Standards) Regulations, 2007.

Regulation 16 (1) prohibits soil pollution. It requires that no person shall discharge any hazardous substance, chemical, oil mixture containing oil on any soils except in accordance with what is prescribed under this regulation.

The contractors shall abide by this Regulation by the directives stipulated in this Regulation as they call for the maintenance of prescribed soil quality standards and the monitoring and control of soil pollution.

3.5.25 The Environmental Management (Air Quality Standards) Regulations, 2007.

The purpose of regulation is to set baseline parameters on air quality and emission based on a number of practical considerations and acceptable limits, enforce minimum air quality standards prescribed by the committee and ensure protection of human health and environment from various sources of pollution. Regulation 8 prohibits the release of hazardous substances, chemical, gas or mixture containing gaseous and hazardous substances into the environment unless the emission or release is permitted under this regulation.

Therefore, the contractors will comply with this law by using proper methods of releasing pollution.

3.5.26 The Environmental Management (Water Quality Standards) Regulations, 2007.

The regulation provides for the protection human health and conservation of environment, enforce minimum water quality standards prescribed by the environmental standards, to enable the committee to determine water usage for purposes of establishing environmental quality standards and values for each usage and to ensure all discharges take account the ability of the receiving waters to accommodate contaminants without detriment to the uses specified for the water concerned.

Regulation 5(1) (a) provides for protection of water sources and ground water where by it states that “any person who knowingly put or permit to be put or to fall to be carried into any stream, so as either singly or in combination with other similar acts of the same nature or interference with its due flow pollute its water” Regulation 5 (1) (d) “pollutes water sources or interferes with soil and vegetation that protect water sources” commits an offense.

Therefore, contractor should abide by this Regulation by not discharging any pollutant to any water source or ground water.

3.5.27 The Environmental (Registration of Environmental Experts) Regulations, 2021

These regulations shall apply to all individual environmental experts and firms of environmental experts certified and registered under these Regulations. Regulation 14 to this regulation provides that “No person shall conduct an environmental impact assessment or carry out any activity relating to the conduct of an environmental impact study, or environmental audit as provided for under the Act, unless that person has been duly certified and registered in accordance with this regulation.”

This ESIA has been undertaken by Norplan Limited, an Environmental Registered Firm of Expert by NEMC.

3.5.28 The Urban Planning (Planning Space Standards) Regulations, 2018

These regulations shall apply to all planning areas declared by the Minister under section 8 of the Act. The Regulations provides for the requirement of space in each projects where by the law require a proponent to consider the space standards of the area before construction and observe the requirement of the law. Whereby under the Schedule item 6 (a) provides for the required space standards for Public facilities as indicated in the table below

(a) Minimum plot size for Public Facilities

Activity	Gross area/ person	Neighbourhood level	Community level (space)	District level
Market	0.4–0.5m ²	1200–2500m ²	0.5–1.5 ha.	4.0 ha.

Therefore, PO-RALG will comply with this regulation by considering space standards required for the Market construction

3.5.29 The Urban Planning (Use Group and Use Classes) Regulations, 2018

For the purposes of planning and the control of development all uses of land and buildings are categorized in the use groups and use classes as in first schedule

The proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market are within the designated land use for Special Retail Service and trade purpose only Use Group ‘E’ Use class (e) as defined in the Urban planning (Use Group and Classes) Regulation, 2018. Hence, the proposed project is compatible with the land use of the area. The area has a Master plan for the future development of Mbeya city project hence the proposed project aligns with the development master plan of the area (Figure 2.2)

3.5.30 The Environmental (Solid Waste Management) Regulations, 2009 as amended in 2016.

These Regulations apply to a matter pertaining to solid waste management, Where by Regulation 6 provides for the duty to safeguard the environment from adverse effects of solid waste which provides that “Every person living in Tanzania shall have stake and duty to safeguard the environment from the adverse effects of solid waste and to inform the relevant authority on any activity or phenomenon resulting from solid waste that is likely to adverse effect the public health and environment”. Also, under the first Schedule this provides for the types of solid waste and its management.

The contractor shall comply with this Regulation by making proper sorting of solid waste generated and disposed according to the requirement of Law through licensed waste collector

3.5.31 National Environmental Impact and Auditing Audit Regulation G.N No. 349 of 2005 as amended by G.N No. 474 of 2018

These regulations provide procedures to be followed when conducting EIA and require the EIA study to be carried out by experts or firms of experts whose names have been duly certified and registered in accordance with the provision of the Registration of Environmental Experts. They also provide Environmental Impacts Assessment steps and the format of an environmental impact statement as indicated under the section 18 (2) of these regulations.

The proposed subproject has complied with the regulations' requirements by deploying registered environmental experts and firm during undertaking of this ESIA study

3.5.32 The Environmental Management (Fee and Charges) Regulations, 2021

This new regulation shows Fees and Charges supposed to be paid accordingly. The proponent is supposed to know different Fees and Charges accordingly to the nature of the proposed project operation. The fees and charges that the Mbeya City requires to comply are charges for Review of Environmental Impact Assessment, Annual Charges for Environmental Monitoring and Audit, fees for environmental quality standards. The proponent shall be aware of these Fees and Charges and will be ready to pay when needed.

3.6 Administrative Framework

In general the key authority responsible for environmental protection and natural resources management is the Ministry of Natural Resources and the Environment through Division of Environment (DoE) and National Environment Management Council (NEMC). The Ministry is empowered by legislation which governs the use of the natural resources and environment. The Ministry is aided by other government ministries and local government authorities to safeguard the environment.

Below are relevant Institutions, their Roles and Responsibilities to the Proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects

(i). National Environmental Authorities

The envisaged institutional framework for environmental management in the country includes the following levels of governance:

- The Minister responsible for the environment;
- National Environmental Advisory Committee
- The Office of the Director of Environment (DOE);
- Sector ministries and their environmental sections;
- Regional administrative secretariats (RASs); and
- Local government authorities (LGAs) are: city, municipal, district, township, ward, village, Mtaa and Kitongoji.

The Environmental Management Act of 2004 (EMA) contains detailed descriptions of roles and responsibilities. A brief overview is as follows: Minister Responsible for Environment

The Minister is responsible for matters relating to the environment, including giving policy guidelines necessary for the promotion, protection and sustainable management of the environment in Tanzania. The Minister approves an EIA and may delegate the power of

approval for an EIA to the DOE, Local Government Authorities or Sector Ministries. The Minister also:

- Prescribes (in the regulations) the qualifications of persons who may conduct an EIA;
- Reviews NEMC reports on the approval of an EIA;
- Issues an EIA certificate for projects subject to an EIA;
- Suspends an EIA certificate in case of non-compliance

(i) National Environmental Advisory Committee

The National Advisory Environmental Committee is composed of members with experience in various fields of environmental management in the public and private sector and in civil society. The committee advises the Minister on any matter related to environmental management. Other functions include:

- Examine any matter that may be referred to it by the Minister or any sector Ministry relating to the protection and management of the environment;
- Review and advise the Minister on any environmental plans, environmental impact assessment of major projects and activities for which an environmental impact review is necessary;
- Review the achievement by the NEMC of objectives, goals and targets set by the Council and advise the Minister accordingly;
- Review and advise the Minister on any environmental standards, guidelines and regulations;
- Receive and deliberate on the reports from Sector Ministries regarding the protection and management of the environment;
- Perform other environmental advisory services to the Minister as may be necessary.

(ii) Division of Environment (DoE)

The functions of the Division of Environment include:

- Coordination of various environmental management activities undertaken by other agencies;
- Promotion of the integration of environmental considerations into development policies, plans, programmes, strategies, projects;
- Undertaking strategic environmental risk assessments with a view to ensuring the proper management and rational utilization of environmental resources on a sustainable basis for the improvement of quality of human life in Tanzania;
- Advise the Government on legislative and other measures for the management of the environment or the implementation of the relevant international environmental agreements in the field of environment;
- Monitoring and assessing activities undertaken by relevant Sector Ministries and agencies;
- Preparation and issuing of reports on the state of the environment in Tanzania through relevant agencies;
- Coordination of issues relating to articulation and implementation of environmental management aspects of other sector policies and the National Environment Policy

(iii) National Environment Management Council (NEMC)

The NEMC's purpose and objective is to undertake enforcement, compliance, review and monitoring of EIA's and to facilitate public participation in environmental decision making. According to the Environmental Management Act (2004) the NEMC has the following responsibility pertaining to ESIA in Tanzania:

- Registers experts and firms authorized to conduct EIA; Registers projects subject to EIA;
- Determines the scope of the EIA;
- Set-ups cross-sectoral Technical Advisory Committee (TAC) to advise on EIA reviews;
- Requests additional information to complete the EIA review;
- Assesses and comments on EIA, in collaboration with other stakeholders,
- Convenes public hearings to obtain comments on the proposed project;
- Recommends to the Minister to approve, reject, or approve with conditions specific EIS;
- Monitors the effects of activities on the environment;
- Controls the implementation of the Environmental Management Plan (EMP);
- Makes recommendations on whether to revoke EIA Certificates in case of non-compliance;
- Promotes public environmental awareness;
- Conducts Environmental Audits

(iv) Sector Ministries

The existing institutional and legal framework the Sector Ministries are required to establish Sector Environmental Sections headed by the Sector Environmental Coordinator.

The Sector Ministries' Environmental Sections;

- Ensure environmental compliance by the Sector Ministry;
- Ensure all environmental matters falling under the sector ministry are implemented and report of their implementation is submitted to the DOE;
- Liaise with the DOE and the NEMC on matters involving the environment and all matters with respect to which cooperation or shared responsibility is desirable or required;
- Ensure that environmental concerns are integrated into the ministry or departmental development planning and project implementation in a way which protects the environment;
- Evaluate existing and proposed policies and legislation and recommend measures to ensure that those policies and legislation take adequate account of effect on the environment;
- Prepare and coordinate the implementation of environmental action plans at national and local levels;
- Promote public awareness of environmental issues through educational programmes and dissemination of information;
- Refer to the NEMC any matter related to the environment;
- Undertake analysis of the environmental impact of sectoral legislation, regulation, policies, plans, strategies and programmes through strategic environmental assessment (SEA);
- Ensure that sectoral standards are environmentally sound;
- Oversee the preparation of and implementation of all ESIA's required for investments in the sector;
- Ensure compliance with the various regulations, guidelines and procedures issued by the Minister responsible for the environment and;
- Work closely with the ministry responsible for local government to provide environmental advice and technical support to district level staff working in the sector.

The Regional Secretariat, which is headed by the Regional Environmental Management Expert, is responsible for the co-ordination of all environmental management programmes in their respective regions. The Regional Environmental Expert:

- Advises local authorities on matters relating to the implementation of and enforcement of environmental laws and regulations;
- Creates a link between the region and the DOE and the Director General of the NEMC.

(v) Local Government Authorities

Under the Local Government Act of 1982 (Urban and District Authorities), Local Government Authorities include the City Councils, Municipal Councils, District Councils, Town Councils, Township, Kitongoji, Ward, and Village.

The Environmental Management Committee of each jurisdiction:

- Initiates inquiries and investigations regarding any allegation related to the environment and implementation of or violation of the provisions of the Environmental Management Act;
- Requests any person to provide information or explanation about any matter related to the environment;
- Resolves conflicts among individual persons, companies, agencies non- governmental organizations, government departments or institutions about their respective functions, duties, mandates, obligations or activities;
- Inspects and examines any premises, street, vehicle, aircraft or any other place or article which it believes, or has reasonable cause to believe, that pollutant or other articles or substances believed to be pollutant are kept or transported;
- Requires any person to remove such pollutants at their own cost without causing harm to health and;
- Initiates proceedings of civil or criminal nature against any person, company, agency, department or institution that fails or refuses to comply with any directive issued by any such Committee.

Under the Environmental Management Act (2004), the City, Municipal, District and Town Councils are headed by Environmental Inspectors who are responsible for environmental matters. The functions of the inspectors are to:

- Ensure enforcement of the Environmental Management Act in their respective areas;
- Advise the Environmental Management Committee on all environmental matters;
- Promote awareness in their areas on the protection of the environment and conservation of natural resources;
- Collect and manage information on the environment and the utilization of natural resources;
- Prepare periodic reports on the state of the local environment;
- Monitor the preparation, review and approval of EIA for local investors;
- Review by-laws on environmental management and on sector specific activities related to the environment;
- Report to the DOE and the Director General of the NEMC on the implementation of the Environmental Management Act and;

4 BASELINE ENVIRONMENTAL CONDITIONS

4.1 Overview

Baseline information provides the basis for predicting and monitoring environmental effects and helps to identify environmental problems and alternative ways of dealing with them. The identification of environmental conditions/issues of particular significance in the planning area provides an opportunity to define key issues for the project and to improve and refine objectives and options. The analysis of environmental issues influences the baseline and the EIA framework, in particular in identifying and selecting indicators and targets.

This section describes the current existing situation and highlights the key issues faced within the planning area. It does not attempt to cover all the issues but identifies those that are considered to be a priority in terms of the environmental sustainability of the planning area.

4.2 Biophysical Environment

4.2.1 Location and Administration

Mbeya City is the administrative center of Mbeya region and harbors Mbeya District Council as well as a major center for commercial and trading activities in the Southern highlands zone and neighboring countries of Malawi, Zambia and Democratic Republic of Congo (DRC). Administratively Proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects are located in Iyela, Ruanda and Maendeleo Wards within the Mbeya City Council. Figure 2-1 below shows the administrative wards.

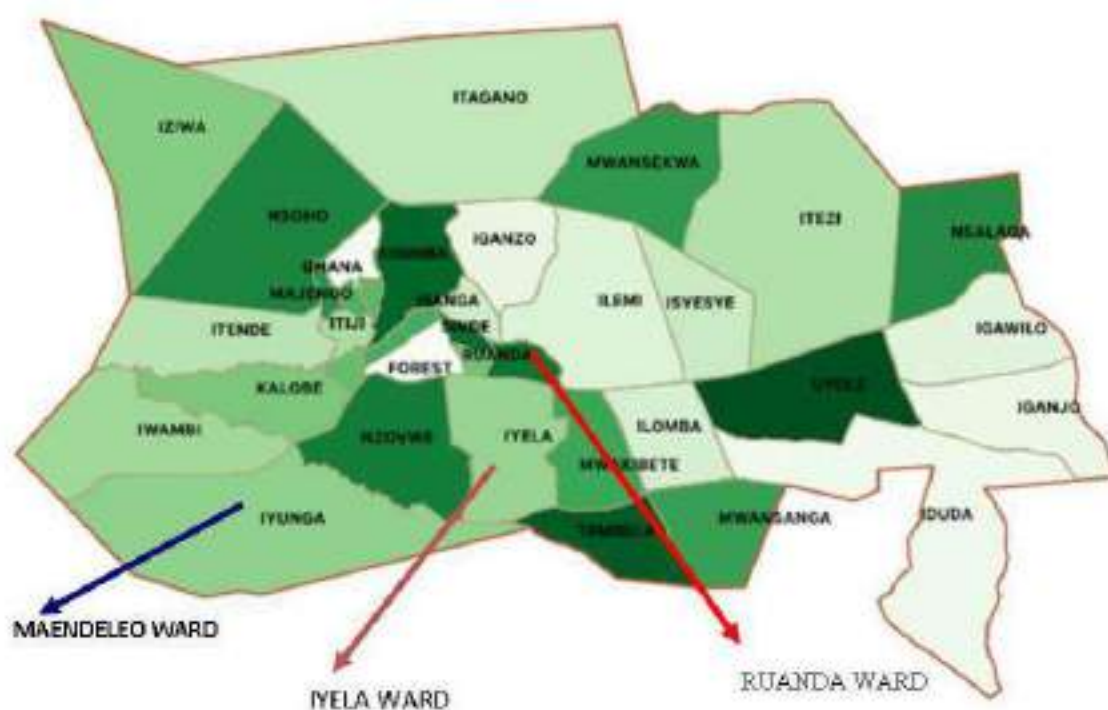


Figure 4-1: Administrative Wards in Mbeya Region
Source: Google earth Edited by EIA Consultant

4.2.2 Topography

Mbeya City is situated on a rugged terrain surrounded by two mountain ranges (Mbeya Peak and Loleza Mountain Ranges in the North West and Uporoto Mountains in the South East), at an altitude rising from 1600 to 2400 meters above sea level. The terrain caused by erosion during the past 150 million years generally descends from over 2000 meters in a southward direction to Meta river valley (about 1650 metres) from where it ascends to 1780 meters and drops again to 1600 meters above sea level along Nzovwe river valley. Other rivers cutting across the City include Loleza, Meta, Sisimba and Nsalaga.

Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will be designed such that it will follow existing topography as much as possible. Topography of Mbeya shall not affect the proposed subprojects as the area are relatively flat and construction shall follow the favorable conditions for construction.

4.2.3 Geology

The geology of Mbeya is made up mostly of genesis and comprises of the Rungwe volcanic field (basaltic volcanics and carbonatites) in the South and the Ubendian-Usangaran Belt (basement rocks) in the North. The following rock types are found around the project area: tuff and pumice, a situation which probably extends further North. Hot springs are to be found in the lakebed limestone at the northern end of the Mbeya Range

The design shall consider geology of the Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects by conducting material and soil analysis to determine nature of the rocks for sustainability of the terminal. Moreover, proposed Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will affect the geology of the as the construction shall require excavation and drilling to project site for concrete and foundation works

Summary of geotechnical report

Central & Mini Bus Terminal - Pit 1

0.00 – 2.50m	Dry, dark reddish, poorly graded non-plastic Silty Sandy GRAVEL
2.50 – 3.10m	Moist, reddish, non-plastic, Gravelly Sandy SILT

Central & Mini Bus Terminal - Pit 2

0.00 – 2.40m	Dry, greyish, poorly graded non plastic Silty Gravelly SAND
2.40 – 3.00m	Moist, dark, greyish, red Gravelly Sandy SILT

Central & Mini Bus Terminal - Pit 3

0.00 – 1.60m	Moist, Reddish, grey Poorly graded non plastic Silty Gravelly SAND
1.60 – 3.10m	Moist, reddish, non-plastic Sandy SILT

Grain & Fruit Market - Pit 1

0.00 – 2.40m	Dry, Greyish, poorly graded non plastic Silty Sandy GRAVEL
2.40 – 3.00m	Moist, reddish non plastic Sandy SILT

Grain & Fruit Market - Pit 2

0.00 – 1.20m	Dry, greyish, non-plastic Sandy SILT
1.20 – 3.00m	Moist, reddish grey, non-plastic Gravelly Sandy SILT

Grain & Fruit Market - Pit 3

0.00 – 1.90m	Moist, dark reddish grey, Sandy CLAY of intermediate plasticity
1.90 – 2.80m	Moist, reddish grey Gravelly Sandy SILT

Analysis

Central & Mini Bus Terminal Site- The soils at this site indicated a uniform distribution with Gravelly Sand dominating close to the surface while Sandy Silt dominates at the bottom layers. The soils indicated non plasticity behavior.

Grain & Fruit Market Site- the Results indicate that the soils at this location are not uniformly distributed. However, the dominant soils indicated to be sandy silts. For the detailed report is attached in Annex 10 of this report

4.2.4 Soil

The soil in Mbeya region vary from the shallow rocky and Stony (Chromic ambisolseutric Cambisol) suitable for forestry and grazing and a variety of food crops to deep Brown clay loams (Mollic Andosol and Ha lic Andosol), deep red clays (Ferralic Cambisol), shallow gravelly (Iron stone overlying soft weathering rock, orthic Ferrasol), deep sandy clay over

sandy loam (Albic Arenosol, Fine Sodic Eutric Gleysol); Excessively drained highly sodic soils (Sodic Regosols, Gleyic Solonetz); dark brown to yellow brown loam calcareous an saline (Calcic Cambisoleutric). These soil types define the agro-ecological regime for Mbeya Region. In the arable areas, soils are most commonly of moderate fertility, coarse or medium in texture and varying from sandy loam and alluvial soils to cracking clays. Large part is dominated by crystalline and mainly fersic gneiss and granite rocks covered with thick layers of volcanic and Alkali basalt.

Soil analysis shall be conducted to identify the parent materials that might have interacted due to the climate of the area to produce the matured soil which is ferruginous and can withstand structures, causing erosion to the Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects being proposed. The proposed Market subprojects shall affect project site soil as for market construction specific type of soil shall require during levelling period hence removal of top soil will be unavoidable.

4.2.5 Climate

4.2.5.1 Temperature & Rainfall

Mbeya Municipality has four distinct climate periods (December – February; March – May; June – September and October – November), which characterize this distribution of rainfall and temperatures within the region as follows the general circulation. Mbeya climatic characteristics in temperature and rainfall are summarized in Table 4.1 below.

Table 4-1: Temperature and Rainfall Distribution in the Mbeya City

Dry Season		May-November
Wet Season		December-April
Average Annual Rainfall		1,017mm
Average Annual Evaporation		1,420mm
	Max	24 °C
Temperatures	Min	10 °C
	Mean Average	17°C

SONGWE MONTHLY MEAN MAXIMUM TEMPERATURE(°C)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	26.9	27.7	28.0	27.6	27.6	26.5	26.5	27.7	30.8	31.1	31.1	28.3
2014	27.4	27.3	28.2	27.3	27.1	27.0	27.0	28.7	29.4	31.1	31.2	28.8
2015	26.4	28.5	28.0	28.2	27.7	27.3	27.8	28.5	30.8	31.3	31.1	28.3
2016	26.6	27.9	29.1	27.7	27.0	26.5	26.3	27.6	30.1	32.3	32.1	29.0
2017	28.1	28.2	27.8	27.6	25.9	27.3	27.1	28.1	30.4	32.6	30.7	28.1
2018	25.8	29.2	26.4	27.2	27.6	26.9	25.6	28.8	30.6	30.3	30.5	27.9
2019	28.1	28.6	28.9	28.5	27.4	26.3	27.1	28.4	30.0	30.6	30.8	26.7
2020	26.7	27.1	27.3	27.6	27.5	26.7	24.9	28.4	29.8	30.9	30.9	27.1
2021	25.8	26.9	28.1	26.9	27.1	26.3	25.6	27.9	29.5	31.2	32.2	31.5
2022	27.0	26.0	27.8	27.7	27.4	25.7	25.4	27.8	30.0	31.7	30.3	26.3

Figure 4-2: Monthly Mean Maximum Temperature for Mbeya

Source: TMA Songwe station, February, 2023

SONGWE MONTHLY MEAN MINIMUM TEMPERATURE(°C)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	17.6	17.5	17.5	17.5	16.5	13.5	14.1	14.8	16.7	17.7	18.3	17.7
2014	17.4	17.4	17.4	17.3	16.3	15.1	14.2	15.7	16.4	17.9	18.0	17.9
2015	17.4	17.2	17.8	17.0	16.5	15.4	14.6	15.3	16.9	17.9	18.2	17.9
2016	18.2	17.9	18.3	17.9	15.9	14.9	14.1	15.3	16.3	17.8	18.3	18.2
2017	17.4	17.4	17.2	17.2	16.3	15.7	14.7	16.1	16.8	18.4	17.1	17.8
2018	17.1	17.7	17.0	17.0	16.4	14.7	14.5	15.2	17.1	17.7	18.6	17.7
2019	18.3	17.7	17.5	18.0	17.3	14.7	14.6	15.5	17.1	18.2	18.2	17.9
2020	17.7	17.9	17.7	17.9	16.2	15.1	14.5	15.5	16.4	18.1	18.2	17.2
2021	17.2	17.4	17.4	17.7	15.8	14.8	13.7	15.8	16.8	18.1	18.2	18.8
2022	17.7	16.9	17.4	17.1	16.2	14.7	14.4	14.8	16.0	17.6	17.5	17.2

Figure 4-3: Monthly Mean Minimum Temperature for Mbeya
Source: TMA Songwe station, February, 2023

SONGWE MONTHLY TOTAL RAINFALL(mm)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	258.2	164.2	179.2	76.3	9.1	0.0	0.0	0.0	0.0	1.7	81.3	199.9
2014	205.2	199.6	203.7	107.3	2.0	0.3	0.0	0.0	1.8	34.0	74.8	141.5
2015	295.8	134.0	69.5	67.5	1.3	0.0	0.0	0.0	0.0	21.3	84.7	139.7
2016	238.4	187.1	168.8	72.3	0.0	0.0	0.0	0.0	0.0	0.0	22.9	159.2
2017	177.3	116.7	165.0	107.0	0.2	0.0	0.0	0.0	0.0	3.0	155.2	181.9
2018	316.9	48.4	277.6	73.3	1.0	0.0	0.0	0.0	1.5	35.4	69.9	218.8
2019	192.7	150.3	260.9	19.4	7.3	0.0	0.0	0.0	14.2	66.6	123.8	45.5
2020	230.8	191.8	140.9	72.2	6.6	0.0	0.0	0.0	0.9	44.8	62.9	223.5
2021	389.7	154.5	191.7	110.7	2.0	0.0	0.0	0.0	0.0	0.0	8.6	86.9
2022	277.1	295.5	135.0	56.7	0.0	0.0	0.0	0.0	0.0	0.0	82.4	221.3

Figure 4-4: Monthly Total Rainfall for Mbeya
Source TMA Songwe station, February, 2023

SONGWE MONTHLY MEAN WINDSPEED(knots)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	5	6	7	10	14	15	15	16	15	16	13	9
2014	6	6	9	11	14	14	15	15	17	14	14	10
2015	7	9	12	10	14	15	15	16	16	13	11	10
2016	7	8	9	11	14	14	15	16	15	14	12	9
2017	7	8	9	12	14	15	16	17	18	14	11	7
2018	4	7	5	9	12	13	14	14	14	14	11	5
2019	4	5	7	10	13	15	14	15	14	13	10	6
2020	5	5	5	10	13	14	16	14	14	11	9	5
2021	3	2	3	10	11	12	13	13	13	12	10	9
2022	4	3	3	8	10	12	12	12	12	12	8	5

Figure 4-5: Monthly Mean Wind speed (Knots)
Source TMA Songwe station, February, 2023

Mbeya City lies within Mbeya Mountain ranges at an altitude of between 1600 and 2400 meters above sea level. It has an average annual rainfall of 1200 mm and an average annual temperature of 25°C. The daily minimum and maximum average temperature range between 11°C and 28°C. In general, the city lies within highland areas that have normal temperatures and adequate rainfall.

Climate change predictions from previous studies indicate Mean annual temperature increase of 2.3°C by 2050, the daily temperature range is expected to decrease and Cold days and nights are expected to decrease to almost zero.

4.2.5.2 Climate Change Projection

4.2.5.2.1 Temperature

RPC4.5 has been used to project temperature changes during the project's operation period, annual temperatures between of 1979-2005 have been considered as reference for projection period of 2020-2040.

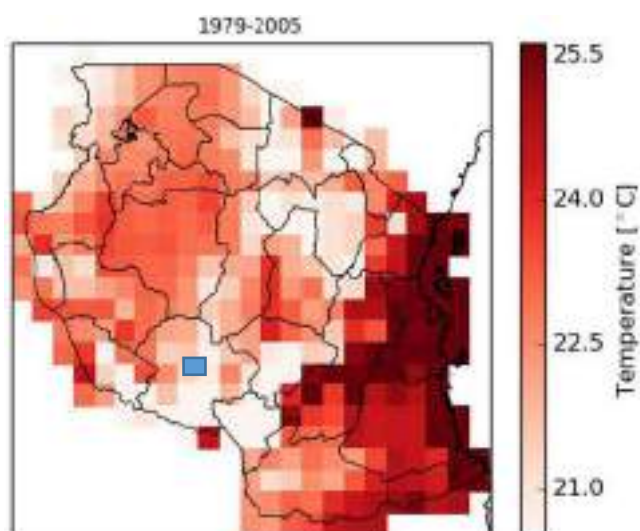


Figure 4-6: Temperature average over the reference period 1979-2005. This map is based on the EWEMBI dataset.

Source: <http://regioclim.climateanalytics.org/choices>

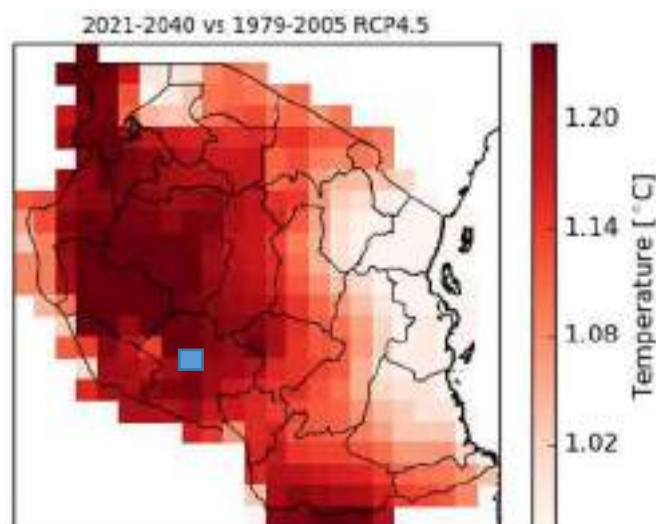


Figure 4-7: Projected change in temperature for 2021-2040 compared to the reference period 1979-2005.

Here the ensemble mean of regional climate model projections is displayed. Grid-cells for which a model-disagreement is found are coloured in grey. The projections are based on the emission scenario RCP4.5.

Source: <http://regioclim.climateanalytics.org/choices>

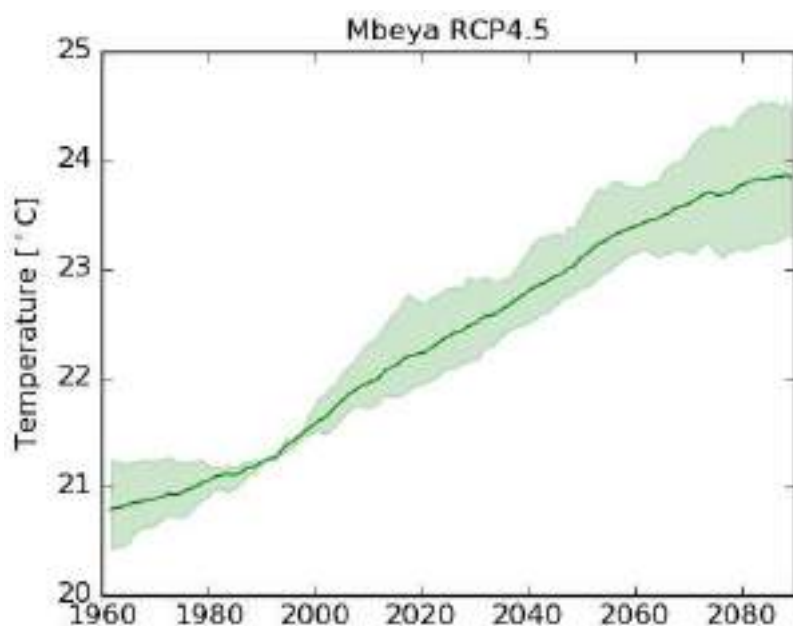


Figure 4-8: Regional climate model projections for temperature displayed as 20 year running mean. The line represents the ensemble mean while the shaded area represents the model spread. The projections are based on the emission scenario RCP4.5.

Source: <http://regioclim.climateanalytics.org/choices>

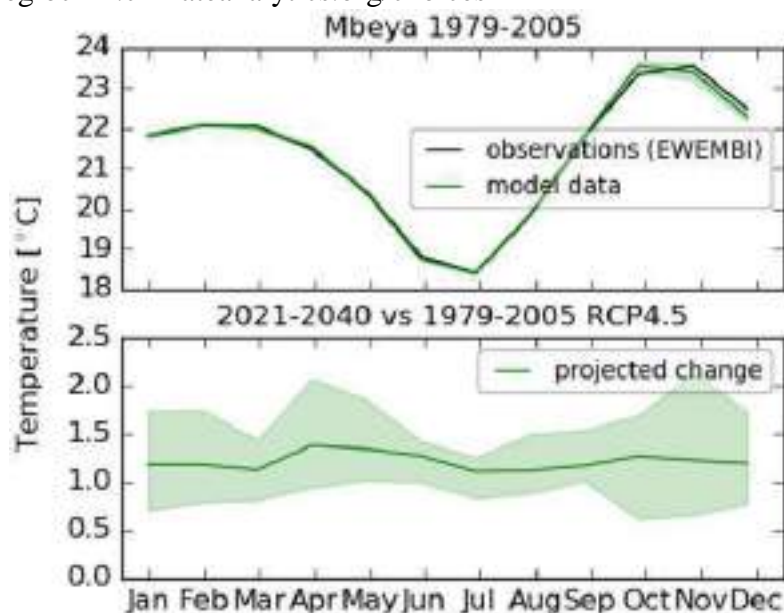


Figure 4-9: Top: Annual cycle of temperature for the period 1979-2005.

Bottom: Changes in annual cycle projected for 2021-2040 compared to the reference period 1979-2005. EWEMBI data is shown in black, regional climate model simulations in green. The green line represents the ensemble mean while the shaded area represents the model spread. The projections are based on the emission scenario RCP4.5.

Source: <http://regioclim.climateanalytics.org/choices>

Temperature is predicted to increase throughout from year 2021 to 2040, figure 6-8 indicates the highest increase of 1.3°C in April and the lowest of 1.1°C in March. Notable period of steady temperature increase is between April and June. Climate change might result into increased temperature by an average 2.3°C by 2050 which is likely to impact the Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects in future only if climate change adaptation measures shall not be taken into consideration on the design and construction of the proposed project.

4.2.5.2.2 Hot Extreme

Hot extreme conditions have been projected for Mbeya by using RCP4.5 as indicate in figures below.

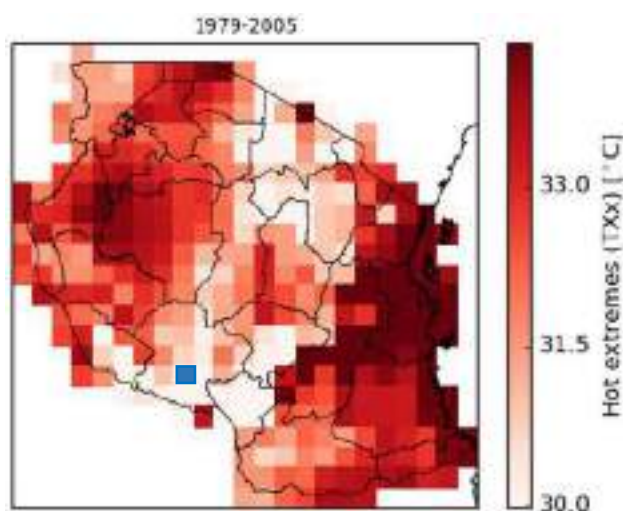


Figure 4-10: Hot extremes (TXx) average over the reference period 1979-2005. This map is based on the **EWEMBI** dataset.

Source: <http://regioclim.climateanalytics.org/choices>

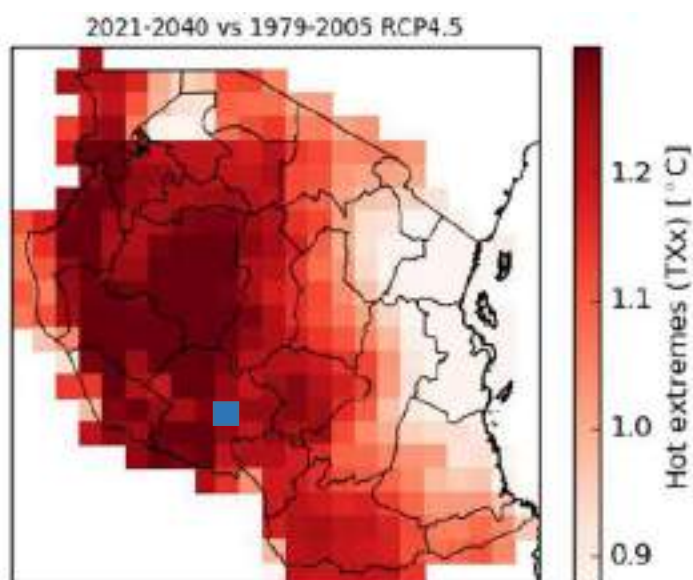


Figure 4-11: Projected change in hot extremes (TXx) for 2021-2040 compared to the reference period 1979-2005.

Here the ensemble mean of regional climate model projections is displayed. Grid-cells for which a model-disagreement is found are colour in gray. The projections are based on the emission scenario RCP4.5.

Source: <http://regioclim.climateanalytics.org/choices>

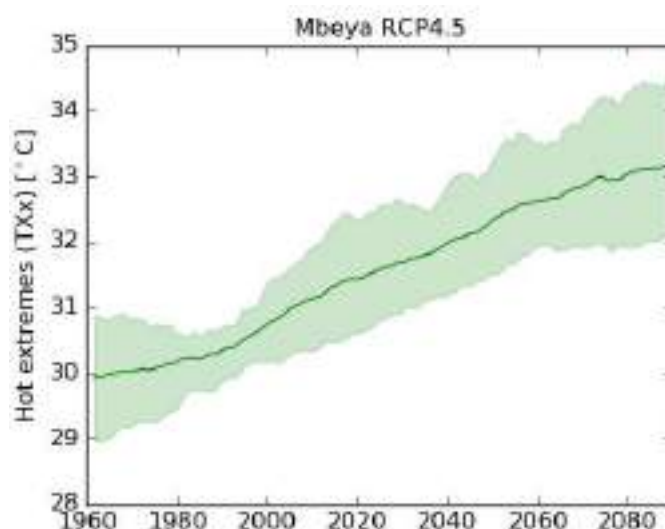


Figure 4-12: **Regional climate model** projections for hot extremes (TXx) displayed as 20 year running mean.

The line represents the ensemble mean while the shaded area represents the model spread. The projections are based on the emission scenario RCP4.5.

Source: <http://regioclim.climateanalytics.org/choices>

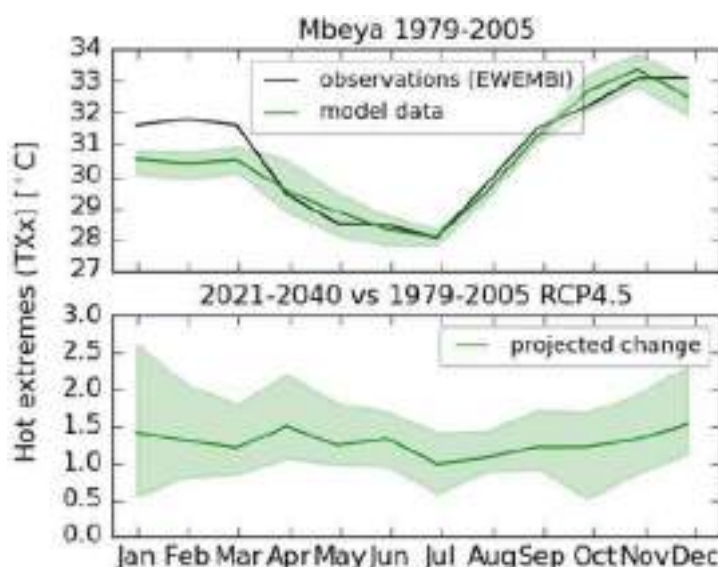


Figure 4-13: Top: Annual cycle of hot extremes (TXx) for the period 1979-2005.

Bottom: Changes in annual cycle projected for 2021-2040 compared to the reference period 1979-2005. EWEMBI data is shown in black, regional climate model simulations in green. The green line represents the ensemble mean while the shaded area represents the model spread. The projections are based on the emission scenario RCP4.5.

Source: <http://regioclim.climateanalytics.org/choices>

Mbeya city is continuing to experience hot weather extremes, currently is experiencing an average of 31°C with projected yearly slight increase, in 2040 hot extreme expected to attain 31°C. Highest hot extreme weather is and shall be experienced in April. Hot extreme is among the climate variable that will contribute to early aging of the building structure. Climate adaptation measures should be considered with regard to the effect of hot weather extremes on market structures.

4.2.5.2.3 Rainfall

Rainfall projection was made with reference period 1979-2005 and projection from 2020-2040.

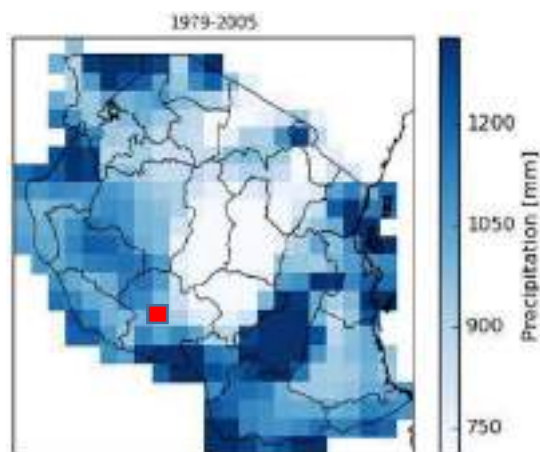


Figure 4-14: Precipitation sum over the reference period 1979-2005. This map is based on the [EWEMBI](http://regioclim.climateanalytics.org/choices) dataset. Source: <http://regioclim.climateanalytics.org/choices>

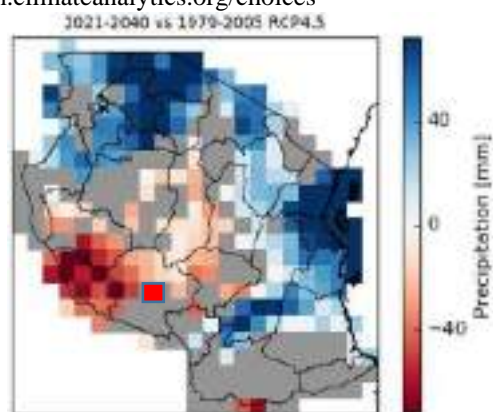


Figure 4-15: Projected change in precipitation for 2021-2040 compared to the reference period 1979-2005. Here the ensemble mean of regional climate model projections is displayed. Grid-cells for which a model-disagreement is found are coloured in grey. The projections are based on the emission scenario RCP4.5. Source: <http://regioclim.climateanalytics.org/choices>

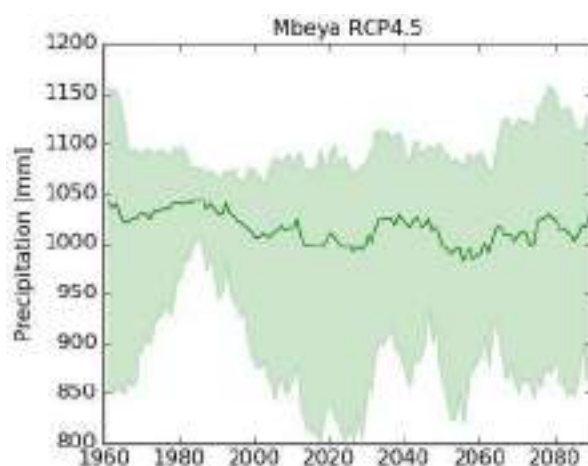


Figure 4-16: Regional climate model projections for precipitation displayed as 20 year running mean. The line represents the ensemble mean while the shaded area represents the model spread. The projections are based on the emission scenario RCP4.5.

Source: <http://regioclim.climateanalytics.org/choices>

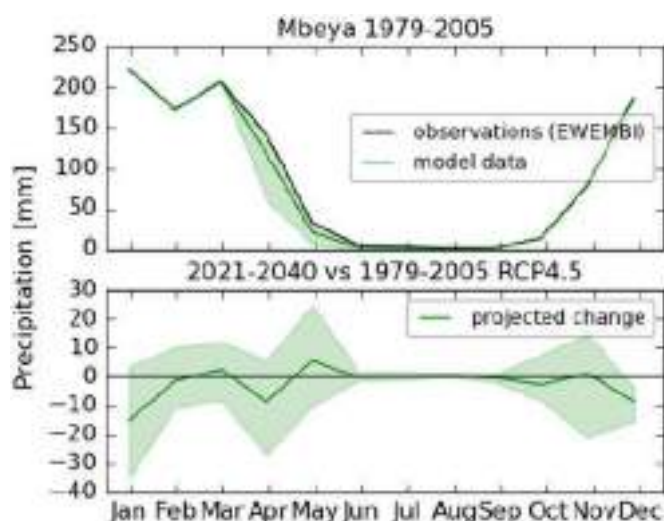


Figure 4-17: Top: Annual cycle of precipitation for the period 1979-2005. Bottom: Changes in annual cycle projected for 2021-2040 compared to the reference period 1979-2005. EWEMBI data is shown in black, regional climate model simulations in green. The green line represents the ensemble mean while the shaded area represents the model spread. The projections are based on the emission scenario RCP4.5.

Source: <http://regioclim.climateanalytics.org/choices>

From the analysis, the Mbeya City will experience an average of 975mm rainfall up to 2029 and start increasing from 2030 to 2045 at an average of 1025mm. In comparison with the reference period of 1979-2005, the month of May will be experiencing an average rainfall increase of 5mm. An increase in rainfall in the Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects causes inconvenient to traders in the market conducting their business, hence consideration on the design for the market shall be considered in future.

4.2.5.2.4 Wet Extreme

This indicates much rain falling too fast that can trigger floods in the project area.

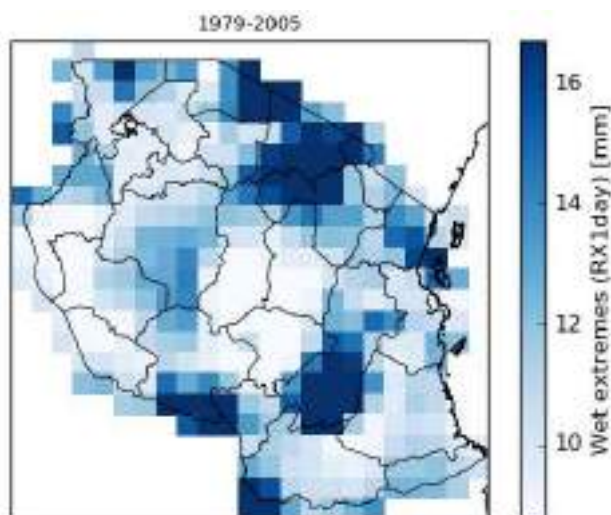


Figure 4-18: Wet extremes (RX1day) average over the reference period 1979-2005. This map is based on the EWEMBI dataset.

Source: <http://regioclim.climateanalytics.org/choices>

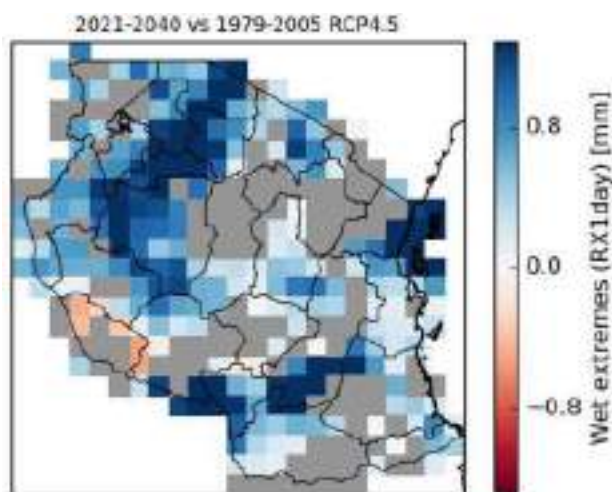


Figure 4-19: Projected change in wet extremes (RX1day) for 2021-2040 compared to the reference period 1979-2005.

Here the ensemble mean of regional climate model projections is displayed. Grid-cells for which a model-disagreement is found are coloured in grey. The projections are based on the emission scenario RCP4.5.

Source: <http://regioclim.climateanalytics.org/choices>

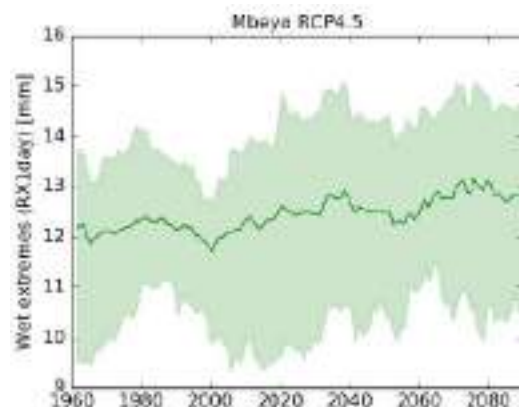


Figure 4-20: Regional climate model projections for wet extremes (RX1day) displayed as 20 year running mean. The line represents the ensemble mean while the shaded area represents the model spread. The projections are based on the emission scenario RCP4.5.

Source: <http://regioclim.climateanalytics.org/choices>

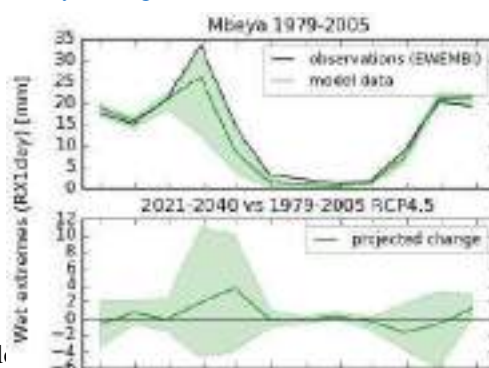


Figure 4-21: Top: Annual cycle of wet extremes (RX1day) for the period 1979-2005. Bottom: Projected change in annual cycle for the period 2021-2040 vs 1979-2005 RCP4.5. EWEMBI data is shown in black, regional climate model simulations in green. The green line represents the ensemble mean while the shaded area represents the model spread. The projections are based on the emission scenario RCP4.5.

Source: <http://regioclim.climateanalytics.org/choices>

Analysis from the model indicates wet extremes from 2030 to 2039, i.e. during the period between Mbeya will experience constant extreme precipitation increase. A sharp increase of extreme precipitation has been observed from March to May.

The Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects shall be design to withstand the increase of precipitation. The increase of precipitation, high winds, and temperature extremes shall affect the market traders and customers hence the design shall consider this in future.

4.2.6 Seismicity

The Mbeya area is situated on the accommodation zone between the South Rukwa and the North Malawi Rift Basins, belonging to the western branch of the East African Rift System (EARS). It corresponds to the intersection of this NW-SE rift valley with the NE-SW trending Ruaha-Usangu depression. The latter being one of the southward prolongations of the eastern branch of the EARS (Kenya Rift). The Rungwe volcanic province developed at the intersection of these two rift directions. The area is known to be seismically active, with volcanic eruptions occurring till historical times and hot springs activity is still noticeable. Uplift, erosion and sedimentation are also important active processes.

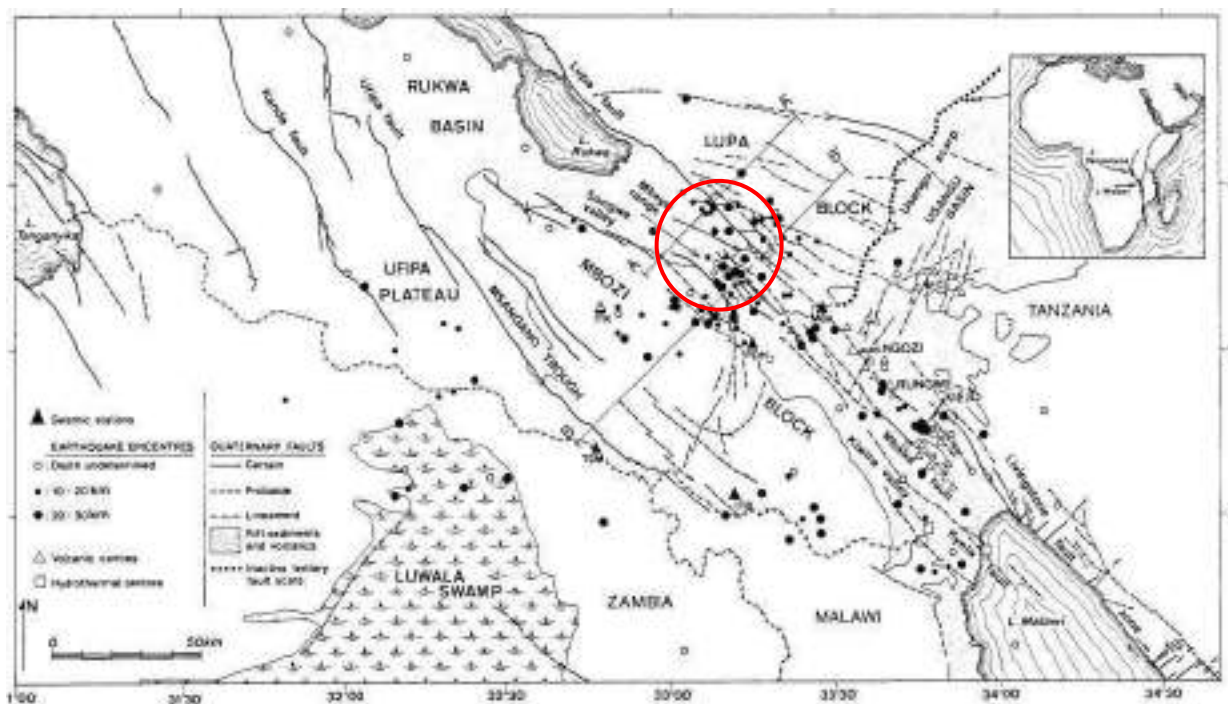


Figure 4-22: Neo tectonic map from the South Rukwa - North Malawi area. Red Circled Area is Mbeya Municipality

Source: D.F. Delvaux and M. Hanon, 1993

Mbeya Municipality can also be affected/experience severe ground shaking at 110-230km from epicentre by earth quake activities with magnitude of 6.5.

The Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will be impacted by the occurrence of earthquake in future, Consideration on the technology, design and construction of the proposed Markets should be considered

4.2.7 Atmospheric conditions

4.2.7.1 Air Quality, Noise and Vibration

The ambient air quality at all sampling locations were measured in December 2021 using ECO-12 Environmental Air Quality taster with model number L211-D00277 and Multi-gas monitor TA8421. The devices were placed at a height level of about 1.2 meter from the ground for air quality parameters measurements.

Dust levels in terms of PM_{10} and $PM_{2.5}$ were measured by using ECO-12 Environmental Quality taster with model number L211-D00277. The device was placed at breath height of about 1.2 meter from the ground to monitor dust concentrations at each identified point. This position is assumed a relatively breathing zone of people at their respective locality or working environment. The recorded average values shown in table below compared with prescribed available limit to check their compliance with local and international standards.

Noise level was measured using IEC 61672-1 Class 2 Data logger. On noise level Meter range; 30 dB – 130 dB (A). On taking measurements, the device-meter scale was set to the 'A' weighed measurement scale, which enables the device to respond in the same manner as human ear. During measurement, the device was fixed/and or held approximately 1.2 meter above the ground and at least 3 m away from hard reflecting surface or objects. The source of noise at the project area was observed to be vehicles and other human activities.

Vibration levels were recorded by using digital vibration meter with model number TA8663. On taking measurements the device was set to velocity mode and the probe placed on the ground.

4.2.8 Flora and Fauna

The Mbeya Region is endowed with a varied flora and Fauna with extensive populations of eucalyptus and pine tree genus. The city like any other urbanized environment has very few remained flora and fauna species due to increased human activities, which have developed over a long time. During construction phase of the market some of the vegetation will be cleared. Clearance permit for trees should be sought before construction begins.

Proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will involves few vegetation to be cleared within the construction zone.

36M 342247E 9119492N	SOKOMATOLA MARKET	Oxygen O ₂ (% volume)	19.9	INSIDE THE MARKET PLACE	
		Carbon monoxide CO (ppm)	0.0		4
		Hydrogen Sulphide H ₂ S (ppm)	0.0		
		Combustible Gases LEL (% volume)	16		
		Carbon dioxide CO ₂ (ppm)	395		500
		Particulate Matter PM _{2.5} (µg/m ³)	48		15
		Particulate Matter PM ₁₀ (µg/m ³)	75		45
		Noise (dB)	63.2		
		Vibration (mm/s)	7.6		
		TVOC	0.06		
		Benzene	0.02		
36M 548003E 9017071N		Oxygen O ₂ (% volume)	20.9	OUTSIDE THE MARKET	
		Carbon monoxide CO (ppm)	0.0		4
		Hydrogen Sulphide H ₂ S (ppm)	0.0		
		Combustible Gases LEL (% volume)	16		
		Carbon dioxide CO ₂ (ppm)	349		500
		Particulate Matter PM _{2.5} (µg/m ³)	43		15
		Particulate Matter PM ₁₀ (µg/m ³)	58		45
		Noise (dB)	69.4		
		Vibration (mm/s)	2.7		
36M 551563E 9014945N	SOWETO MARKET	Oxygen O ₂ (% volume)	19.3	GRAINS SELLING AREA	
		Carbon monoxide CO (ppm)	0.0		4
		Hydrogen Sulphide H ₂ S (ppm)	0.0		
		Combustible Gases LEL (% volume)	17		
		Carbon dioxide CO ₂ (ppm)	391		500
		Particulate Matter PM _{2.5} (µg/m ³)	40		15
		Particulate Matter PM ₁₀ (µg/m ³)	58		45
		TVOC (mg/m ³)	0.0		
		C6H6	0.00		
		Noise (dB)	74.1		
		Vibration (mm/s)	0.1		

36M 551486E 9014885N	SOWETO MARKET	Oxygen O ₂ (% volume)	19.4	CHICKEN SELLING AREA	
		Carbon monoxide CO (ppm)	0.0		4
		Hydrogen Sulphide H ₂ S (ppm)	0.0		
		Combustible Gases LEL (% volume)	16		
		Carbon dioxide CO ₂ (ppm)	975		500
		Particulate Matter PM _{2.5} (µg/m ³)	43		15
		Particulate Matter PM ₁₀ (µg/m ³)	81		45
		Noise (dB)	74.9		
		Vibration (mm/s)	0.1		
		TVOC	0.12		
		Benzene	0.04		
36M 551555E 9014948N	SOWETO MARKET	Oxygen O ₂ (% volume)	20.9	MAIN GATE SOUTHERN SIDE	
		Carbon monoxide CO (ppm)	0.0		4
		Hydrogen Sulphide H ₂ S (ppm)	0.0		
		Combustible Gases LEL (% volume)	16		
		Carbon dioxide CO ₂ (ppm)	407		500
		Particulate Matter PM _{2.5} (µg/m ³)	44		15
		Particulate Matter PM ₁₀ (µg/m ³)	70		45
		Noise (dB)	75.1		
		Vibration (mm/s)	3.2		
		TVOC	0.06		
		Benzene	0.02		
36M 551494E 9015036N	SOWETO MARKET	Oxygen O ₂ (% volume)	19.3	MAIN GATE NORTHERN SIDE	
		Carbon monoxide CO (ppm)	0.0		4
		Hydrogen Sulphide H ₂ S (ppm)	0.0		
		Combustible Gases LEL (% volume)	16		
		Carbon dioxide CO ₂ (ppm)	367		500
		Particulate Matter PM _{2.5} (µg/m ³)	38		15
		Particulate Matter PM ₁₀ (µg/m ³)	52		45
		Noise (dB)	67.9		
		Vibration (mm/s)	3.2		
36M 550713E 9013994N	AIRPORT-SAMORA-	Oxygen O ₂ (% volume)	19.6	Commercial	

	TANESCO SAE KISANJI, AND KABWE BLOCK T – SIDO ROADS 3.2 km	Carbon monoxide CO (ppm)	0.0	residential activities	4
		Hydrogen Sulphide H ₂ S (ppm)	0.0		
		Combustible Gases LEL (% volume)	16		
		Carbon dioxide CO ₂ (ppm)	365		500
		Particulate Matter PM _{2.5} (µg/m ³)	35		15
		Particulate Matter PM ₁₀ (µg/m ³)	44		45
		Noise (dB)	55		
		Vibration (mm/s)	5.2		
		Oxygen O ₂ (% volume)	22.1		
36M 550547E 9014450N		Carbon monoxide CO (ppm)	0.0	Commercial activities	4
		Hydrogen Sulphide H ₂ S (ppm)	0.0		
		Combustible Gases LEL (% volume)	16		
		Carbon dioxide CO ₂ (ppm)	360		500
		Particulate Matter PM _{2.5} (µg/m ³)	39		15
		Particulate Matter PM ₁₀ (µg/m ³)	52		45
		Noise (dB)	73.9		
		Vibration (mm/s)	3.6		
		TVOC	0.05		
		Benzene	0.02		
36M 550311E 9014656N		Oxygen O ₂ (% volume)	26.3	Commercial activities	
		Carbon monoxide CO (ppm)	0.0		4
		Hydrogen Sulphide H ₂ S (ppm)	0.0		
		Combustible Gases LEL (% volume)	16		
		Carbon dioxide CO ₂ (ppm)	388		500
		Particulate Matter PM _{2.5} (µg/m ³)	35		15
		Particulate Matter PM ₁₀ (µg/m ³)	46		45
		Noise (dB)	62		
		Vibration (mm/s)	5.6		

The recorded average values shown in table above shows the average concentrations of particulate matters are above the standards in many projects site and that is because the roads are rough roads and other activities along the road are on progress. The main source of particulate matters in those sites is dusts from vehicles and transportation. The sources of noise at the project area were observed to be vehicles and human activities. It is anticipated that the night and evening noise levels will be even lower, considering the low density of population of these areas, the low frequency of vehicles during the night, and the fact that the population mainly work in the agricultural sector and carry out their core activities during the day

4.3 Socio-Economic and Cultural Conditions

4.3.1 Population Size and Distribution

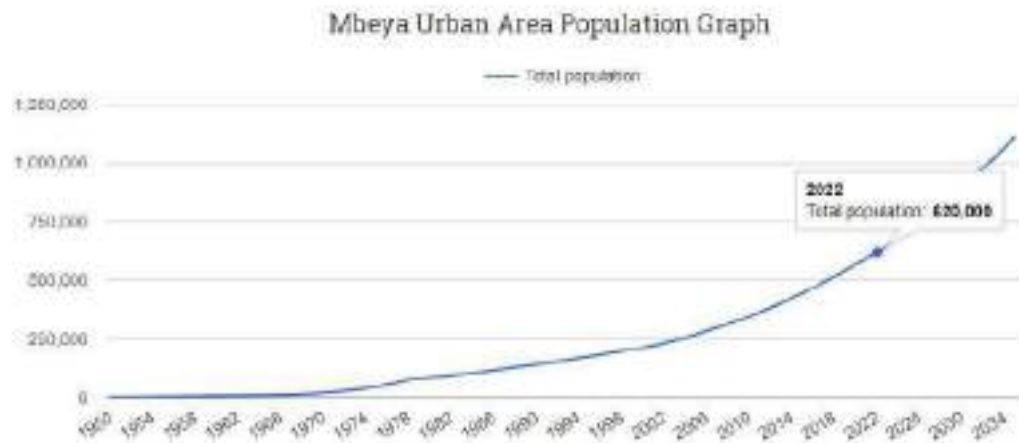
According to the 2012 Population and Housing Census, the total population of Mbeya City was 385,279 persons, out of that 202,659 were females and 182,620 were males. Table 4.3 shows the distribution of population in Mbeya CC by division, ward and sex basing on the 2012 Population and Housing Censuses. Population in Mbeya CC there are 93,475 men and 104,605 women

In addition, there is a similar pattern of population distribution in divisions of Mbeya city between 2002 and 2012 Censuses with the highest share noted in Ilomba and Ilemi with 13.30 % and 10.49 % respectively.

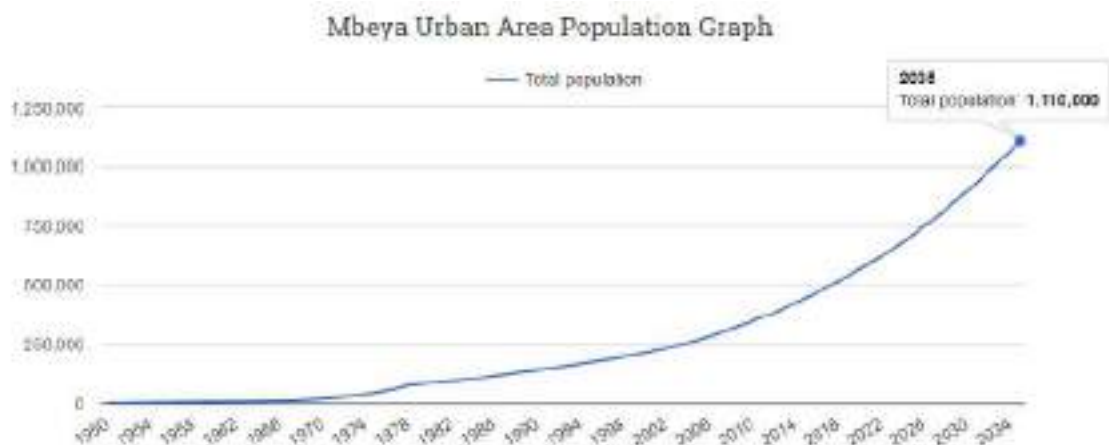
Table 4-2: distribution of population in Mbeya CC by division, ward and sex basing on the 2012 Population and Housing Censuses.

	2012 Population census			
Ward	MALE	FEMALE	TOTAL	PERCEN
Isyesye	3,662	4,308	7,970	3.12
Ilemi	12,845	13,996	26,841	10.49
Iziwa	1,442	1,734	3,176	1.24
Itiji	1,976	2,255	4,231	1.65
Ghana	2,267	2,618	4,885	1.91
Nsoho	876	943	1,819	0.71
Nonde	1,188	1,300	2,488	0.97
Maendeleo	1,345	1,523	2,868	1.12
Itende	1,788	1,702	3,490	1.36
Sub total	27,389	30,379	57,768	22.58
Iyela	15,174	16,460	31,634	12.36
Ilomba	16,001	18,020	34,021	13.30
Mwakibete	11,094	12,225	23,319	9.11
Itezi	8,634	9,811	18,445	7.21
Nsalaga	8,975	10,018	18,993	7.42
Kalobe	6,185	6,995	13,180	5.15
Nzovwe	10,823	12,075	22,898	8.95
Ruanda	10,198	11,729	21,927	8.57
Forest	3,036	3,613	6,649	2.60
Sinde	3,355	3,659	7,014	2.74
Sub total	93,475	104,605	198,080	77.42
Grand Total	120,864	134,984	255,848	100

Source: National Bureau of Statistics, 2002 and 2012 Population Census Report



Projected population in year 2022 is expected to rise to 620,00 for Mbeya city
 Source: World Bank, United Nations, Census, GeoNames



Project increase of population in the year is expected to rise to 1,100,000 in a year 2035
 Source: World Bank, United Nations, Census, GeoNames

Mbeya population grows at 4%, higher than the national average, this puts more pressure on the existing infrastructure, and the council needs to act now for the sustainability of the project. This will put more pressure on the food markets, transportation, waste management, water, healthcare, etc. Rapid and often unplanned population growth is often associated with population demands that outstrip infrastructure and service capacity and leading to environmental degradation during market operation, and increase demand of employment during construction.

During Mobilization and construction phase of the proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects, population increase shall be influenced by demand of employment to the construction site, hence raise pressure on the utilities around the project site.

4.3.2 Economic growth

The economy of Mbeya Region is based on agriculture, livestock keeping, bee keeping, commerce and manufacturing. Other economic activities and potentials include mining and tourism. In 2018, Mbeya Regional Gross Domestic Product (GDP) was about TZS 7.31 trillion and per capita income was TZS 3,506,101. The region contributed 5.65% of the national income (GDP) ranking fourth nation-wide after Dar-es-Salaam, Mwanza and Shinyanga regions. Existing Soweto and Sokomatola markets and proposed grains and fruit market at old airport makes a crucial contribution to economic development and growth and bring important social benefits. In addition, providing access to employment, social, health and education services makes a market operation a crucial in fighting against poverty.

Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will increase economic activities and business to the community and regional at general due to the reliable improved structure, waste management and favorable environment for business

4.3.3 Employment Status

Categorization of status in employment helps in understanding composition and dynamics of labour market. Status in employment distinguishes between six important and useful categories namely paid employees, self-employed in agriculture, self-employed in non-agriculture, unpaid family helpers, apprentices and other status such as working on own farm. As can be deduced from Figure 4.23, own non-agriculture persons have the largest share (44.0 %) of total employed persons followed by own agriculture persons (26.0 %) employee (25.5 %) and family workers (2.9 %). The remaining employment statuses contribute less than 1 % of total employment each.

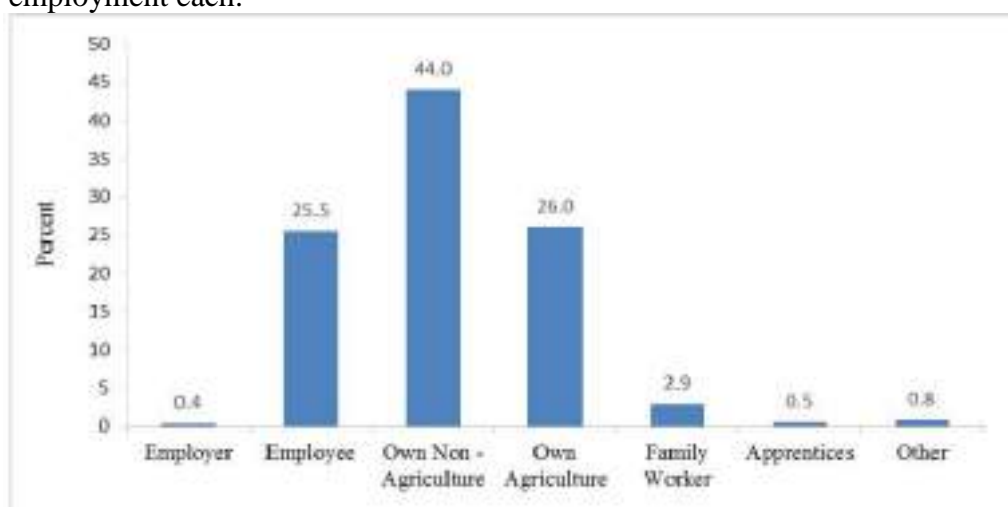


Figure 4-23: Employed Population Aged 10 Years and Above by Employment Status Mbeya City Council, 2012 Census

Source: National Bureau of Statistics, 2012 Population Census Reports

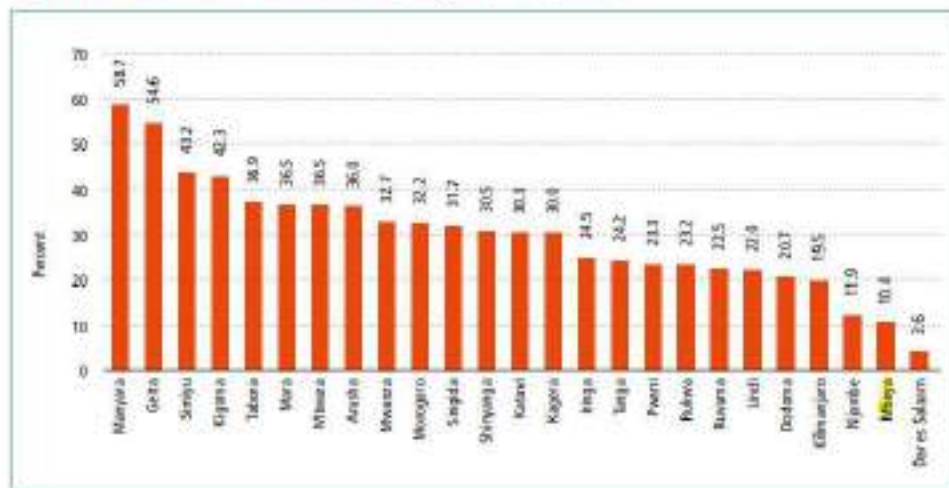
Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will create employment to local community, thus increase per capital income to construction workers, surrounding communities and the city economic income. Approximately to 150 -250 workers will be employed during construction phase.

4.3.4 Children Labor aged 5–13 years

Around one in four children aged 5–13 years (25%), almost 2.8 million in absolute terms, are in child labour. But these overall estimates marks important differences by individual and household background characteristics. Child labour increases with age and is much higher in rural areas than in cities and towns. Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will lead to creation of employment to unskilled workers and related associated activities that shall increase musculoskeletal disorders, physical impairment, and psychological distress to children.

Children aged 5–17 years

Figure A1. Prevalence of child labour by region, 5-17 years



Source: Based on Tanzania Integrated Labour Force Survey (ILFS), 2014

Figure 4-24: Prevalence of child labour by region, 5-17 years

Source: Based on Tanzania Integrated Labour Force Survey (ILFS), 2014.

4.3.5 Gender Based Violence (GBV)

Gender-based violence is widespread and common in Tanzania. Data shows that 40% of women and girls in Tanzania aged 15–49 have experienced physical violence and 17% sexual violence in their lifetime. A violence against children survey found that 27.9 % of girls had experienced sexual violence before their 18th birthday. Moreover Mbeya Region ranked third highest among the 30 regions in Tanzania in HIV prevalence at 11.0 % among females and 6.7 % among males. The region also ranked third highest in prevalence of Intimate Partner Violence (IPV) 67 %, of ever-married women aged 15–49 years reported that they had ever experienced violence from a partner in comparison to the national prevalence of 50.2 %. Proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects shall create gender violence due to employment opportunity if preference shall be only to male gender.

4.3.6 Ethnic Groups

There are five unique major ethnic groups in the city scattered in different wards. Iziwa ward has only one major ethnic group, which is Safa while Mwasenkwa, Nsoho, Itende, Tembela and Mwasanga wards have two different major ethnic groups and Iduda ward has three different major ethnic groups. Other wards have at least five major unique ethnic groups. The major ethnic groups in the city that are found in all wards include Safa, while Nyakyusa, Ndali, Kinga and Nyiha are found in almost all wards of the city.

Proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will attract different people from different places for proposed Construction of market. The interaction of ethnic groups will lead to culture transfer or deterioration of moral at different occasion.

4.3.7 Water Sources & Supply

Mbeya city gets water supplies predominantly from 13 sources namely Ivumwe (Iyela), Imeta, Sisimba, Hanzya/Mfwizimo (Nsoho), Nsalaga, Nzovwe, Swaya, Lunji, Mwatezi, Nzovwe at Iyela, Halewa and Idunda. Water before supply is treated to meet recommended Tanzania drinking water quality standards. The present average water production is in Mbeya city is 32,600 m³/d which lower than current average demand of 47,600 m³/d. Mbeya Water Supply and sanitation Authority faces various challenges including old age distribution network, high non-revenue water and the most important is the fast population growth and sprawling of the city. Rapid urbanization in Mbeya city accelerates anthropogenic source of pollutions, which threatens the quality of water resources in the city. The baseline report indicated that about 10% of the city is affected by flooding during rainy seasons which occurs in the months of February and April each year. Flooding seriously affects the quality of water resources. For sustainable water supply, surface water quality monitoring is important.

Generally, water quality monitoring should be done to achieve the following objectives:

- Characterize waters and identify changes or trends in water quality over time;
- Identify specific existing or emerging water quality problems;
- Gather information to design specific pollution or remediation programmes;
- Determine whether program goals such as compliance with pollution regulation or implementation of effective pollution control actions are being met;
- Respond to emergencies such as spills and floods.

Proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects shall create pressure on the water demand during construction phase to both workers and construction related works on markets subproject.

4.3.8 Health

4.3.8.1 Health Services

Mbeya city has five hospitals of which three hospitals are government hospitals and two are non-government. Sisimba division has one government hospital and Iyunga division has four hospitals of which two are government and two are non-government hospitals. Results further reveal that there are seven health centres in the council whereby Sisimba division had one government health centre and one non-government health centre while Iyunga division has five

health centres of which two are owned by government and three are non-government. In addition, there are 34 dispensaries whereby 17 dispensaries are owned by governments and 17 dispensaries are non-government dispensaries. More dispensaries are found in Iyunga division of which 12 are government dispensaries and 15 non-government dispensaries compared to Sisimba division with 5 government dispensaries and 2 non-government dispensaries.

The accessibility to health facilities in the project area is good since a number of dispensaries and hospital can easily be accessed. The proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects shall involve employment approximately to 150 -250 workers which lead to pressure on the health services, as a result of injuries and accidents from the construction activities.

4.3.8.2 Diseases & HIV/AIDS Prevalence

The major diseases found in the project area include malaria, diarrhea, respiratory infections including coughing, and TB, pneumonia and skin diseases. Malaria has been ranked the main killer disease in the project area.

With respect to HIV/AIDS infection HIV prevalence peaks at 12% among females aged 45 to 49, as compared to a peak of 8.4% among males aged 40 to 44. HIV prevalence among 15- to 24-year-olds is 1.4% (2.1% among females and 0.6% among males). The disparity in HIV prevalence between males and females is most pronounced among younger adults, with prevalence among women in age groups 15 to 19, 20 to 24, 25 to 29, 30 to 34, and 35 to 39 more than double that of males in the same age groups. Among adults 15 years and older, HIV prevalence varies geographically across Tanzania, ranging from 11.4% in Njombe followed by 9.3 in Mbeya region.

Proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects shall attract different people searching for employments. Through interactions with the communities, sexual relationships shall emerge and likely to increase transmission of HIV/Aids.

4.3.8.3 Covid- 19

A number of COVID-19 cases were confirmed during the 1st, 2nd and 3rd wave in Tanzania as indicated in the table below. Mbeya was recorded with 0 confirmed cases in 2020. Measures have been undertaken to ensure Covid-19 will not be transmitted including, washing hands on the working environment and ensure daily self-test

Table 4-3: A number of COVID-19 cases in Tanzania

Reporting Country/ Territory/ Area	Total confirmed cases	Total confirmed new cases	Total deaths	Total new deaths	Transmission classification	Days since last reported case
United Republic of Tanzania	480	0	18	0	Clusters of cases	6

Source: Situation Report – 107 Data as received by WHO from national authorities by 10:00 CEST, 6 May 2020

The pandemic and its disruption of global supply chains have increasingly affected construction activities, with shortages of raw materials and other inputs, contractors and subcontractors, and workers. Some building material supply chains have suspended production and distribution. Builders have reported delays and increasing costs for imported raw materials (steel, coils, tiles) and off-site construction components (cabinetry, internal fittings), as many factories have been closed for extended periods.

The project will expose workers to covid-19 environment and thus increased transmission within the project areas.

4.3.9 Land Use Planning

Land use planning is a key aspect of development for both urban and rural areas of any council in the country. The land needs in urban areas are basically for building plots for residential, commercial, institutional or industrial purposes. In rural areas, land is highly demanded for agriculture and other social economic production activities. Proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subproject is built on an area designed for construction of market business. Moreover the sub project shall enhance commercial activities and industrial areas taking into account the improved business market infrastructure.

4.3.9.1 Land area

Mbeya City Council has a total area of 250.219 square kilometre of which the land area is 250.079 square kilometres and water area is 0.140 square kilometre

Table 4-4: Land and Water Area in Square Kilometres by Division and Wards covered by TACTIC project, Mbeya City Council

Division	Ward	Land Area	Water Area	Total Area	Percent of Land Area	Percent of Water Area
Sisimba	Isyesye	6.312	0.001	6.313	2.5	0.7
	Ilemi	10.452	0.000	10.452	4.2	0.0
	Itiji	1.111	0.001	1.112	0.4	0.7
	Nonde	0.956	0.005	0.961	0.4	3.6
	Maendeleo	0.534	0.001	0.535	0.2	0.7
	Majengo	0.341	0.000	0.341	0.1	0.0
	Itende	10.364	0.007	10.371	4.1	5.0
	Sub Total	29.729	0.014	30.085	11.9	10.7
Iyunga	Iyela	7.520	0.002	7.522	3.0	1.4
	Ilomba	10.364	0.000	10.364	4.1	0.0
	Mwakibete	8.904	0.000	8.904	3.6	0.0
	Itezi	14.505	0.001	14.506	5.8	0.7
	Nsalaga	23.913	0.013	23.926	9.6	9.3
	Nzovwe	7.421	0.002	7.423	3.0	1.4
	Ruanda	1.435	0.000	1.435	0.6	0.0
	Forest	1.436	0.000	1.436	0.6	0.0
	Sub Total	75.498	0.018	75.516	29.3	12.8
Grand Total		105.227	0.022	105.601	41.2	23.5

Source: Mbeya City Land Office (2015)

4.3.10 Road Network Classification

Road network in Mbeya city shows that out of 559.2 total kilometres in the City Council, 44.8 % of the road network is earth road, 39.9 is gravel and 15.3 is tarmac. Existence of longest earth road network in the council indicates limitations of possibility during the rainy seasons. Furthermore, the longest earth road network is in Iyunga division with 164.4 kilometres compared to Sisimba division with 86.2 kilometres. Iyunga division has the longest tarmacked road network with 53.3 kilometres while Sisimba division has 32.4 kilometres. On other hand Sisimba ward had the longest tarmacked road network of 6.4 kilometres followed Forest with

6.3 and Mbalizi ward with 4.7 kilometres. Iziwa, Nsoho, Itende, Tembela and Mwasanga wards do not have tarmac networked roads at all.

Upgrading of Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will influence construction of the road to serve the intended population and to facilitate easily movement of vehicles to and from the markets.

4.3.11 Agriculture

Maize production accounts for the largest area under cultivation with an average of 1,208 ha in Sisimba division and 2,801 ha in Iyunga division.

Table 4-5: Estimated Land Area (ha) under Major Food Crops by Division, Mbeya City Council, 2011 – 2015

Division	Crops	2011	2012	2013	2014	2015	Average
Sisimba	Maize	1,458	1,328	1,185	1,126	941	1,208
	Beans	293	270	248	222	196	246
	Peas	19	15	13	11	7	13
	Sub Total	1,770	1,613	1,446	1,359	1,144	1,466
Iyunga	Maize	3,372	3,014	2,785	2,515	2,317	2,801
	Beans	558	513	467	417	379	467
	Round Potatoes	191	176	164	148	133	162
	Cow peas	42	36	28	22	17	29
	Wheat	27	25	23	21	19	23
	Sub Total	4,190	3,764	3,467	3,123	2,865	3,482
	Grand Total	5,960	5,377	4,913	4,482	4,009	4,948

Source: Mbeya City Department of Agriculture, Irrigation and Cooperatives

Propose Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will easily facilitate the business opportunity to farmers and also increase per capital income due to the improved market structure and favourable condition for doing business in the market.

4.3.12 Crimes Cases

Mbeya City Council in 2015 had 10 police stations with 357 Police Officers. The data shows that, the number of Violent crimes reported is 11,086 equivalents to 69.5 % out of all crimes reported, followed by 4,787 property crimes equivalent to 30.0 % and drug crimes is the least reported with 74 cases equivalent to 0.5 %.

Proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will increase the crimes cases during construction phase, as it will attract stealing of construction materials such as cement, iron if proper security measures will not be taken into consideration.

5 STAKEHOLDERS CONSULTATION AND PUBLIC PARTICIPATION

5.1 Overview

Stakeholder engagement refers to a broad, inclusive, and continuous process to engage persons or groups who are directly or indirectly affected by a project, as well as those who may have interests in a project and/or the ability to influence its outcome, positively or negatively.

Stakeholder engagement enhances the effectiveness, efficacy, and accountability of the ESIA process and the project as required by TACTIC Stakeholders Engagement Plan (SEP). When undertaken in a transparent, balanced manner, it can reduce conflicts and strengthen the sense of ownership of a project and the project's sustainability.

Stakeholder engagement often collaboratively identifies issues and options, and helps make decisions based on input received via the stakeholder engagement process.

5.2 Objectives of Public Consultations and Engagement

Objectives of public consultations and engagement for the proposed subprojects under TACTIC are:

- Provide clear and accurate information about the subproject to the communities
- Disseminate information to affected stakeholders to raise their awareness of the proposed subproject.
- Increase stakeholder understanding about the proposed subproject, including its context, aims, opportunities and constraints.
- Accumulate feedback from affected stakeholders to inform project development and ensure that outcomes appropriately meet the relevant needs of those concerned. Consultation will seek to:
 - document stakeholders' concerns and preferences;
 - identify any issues and constraints existing in the subproject's areas which may affect the design ;
 - Assess and document the commonality and relevance of issues and concerns identified through the consultation to feed the ESIA process.
- Provide updates about consultation outcomes to the stakeholders involved, to keep them informed.
- Influence the perception and attitude among stakeholders consulted to enable and obtain acceptable levels of feedback from stakeholders.
- Inform communities along the way leave about the subprojects' schedule
- Gathering from population and their representatives about main environmental and social concerns and perceptions regarding the Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects
- Gather opinions and suggestions directly from the communities on their preferred mitigation measures and
- Gather opinions and concerns of the various minority groups of women, children, disabled and youth on the proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects

5.3 Subproject's Levels of Public Engagement and Consultations

The public engagement and consultations were conducted in phases, which are; first Round Consultation and second Round Communities' Consultation.

First Round Stakeholders engagement involved: **(a) To Inform:** Provide stakeholders with balanced and objective information to help them understand the project, the problem, and the solution alternatives **(b) To Consult:** Gather feedback on the information given. This was followed by 2nd Round communities' engagement which: **(a) Involve:** Worked directly with communities during the process to ensure that their concerns and desired outcomes are fully understood and taken into account and **(b) Collaborate:** Partner with communities on the decision-making, including developing alternative solution ideas and choosing the preferred solution together.

5.3.1 1st Round Stakeholders Engagement Methodology

5.3.1.1 Stakeholders Identification

The main stakeholders for the proposed urban infrastructure under TACTIC Project in Mbeya City included; Mbeya City Council, Fire and Rescue Force, Tanesco, Mbeya-UWSA, Lake Rukwa Basin Water Board, Communities, Focus Groups as indicated in Table 5-1 overleaf.

5.3.1.2 Stakeholders Analysis

After identifying and grouping stakeholders, stakeholder analysis was used to characterize stakeholder groups' interests, how they will be affected by the proposed subproject and to what degree, and how those groups may influence the subproject. The stakeholder analysis process revealed important differences among groups, including their concerns and priorities.

Communities and other stakeholders that will be affected by proposed subproject have to be engaged as early as possible during subproject design. By engaging with stakeholders early, it may be possible to avoid, mitigate, or decrease the subproject's impact. It is generally not practical or feasible to engage with every single stakeholder group at every level.

5.3.1.3 Public Meetings

Dissemination of subproject's information among communities along the proposed/selected Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects through MEOs and WEOs and later through meetings was an important aspect of the public participation process, they needed to be appropriately informed about what is planned in their areas.

Each meeting was hosted by local authorities and was conducted for an average of 2-3hrs; ESIA team of three (3) members present; one to act as moderator, and other to take notes for the minutes of the meeting.

5.4 Public Participation Process

Several methodologies were used during the stakeholder consultation process. First, the fieldwork which is necessary to formalize and record public opinion about the potential impacts of the project that was undertaken by ESIA team of experts. Key informant interviews were used to seek the public opinion. The ESIA experts explained the structure of the proposed development to the identified stakeholders and responded to their questions as appropriate. At the same time, the ESIA experts also inquired of the local environmental history of the site and adjacent areas in order to identify potential environmental impacts. The exercise was conducted through interviews with key informants, field surveys and discussions. The table below shows the Study plan and number of informants consulted by wards

The number of participants was approximately to 636 for communities' consultations [See tables 5-1 below], included: local officials, community leaders, disabled people, and different types of market users, urban farmers and groups representing community activities. The

consultations were led by Socio expert with the support of the ESIA consultant and community development expert and officers from Mbeya City Council.

Table 5-1: Participants for Engagement and Consultation

S/NO	WARD	PARTICIPANTS		
		DATE	FOCUS GROUP	NO
1	MBEYA CC	27/12/2021	Council Director	1
		27/12/2021	Head of Departments	4
		27/12/2021	Engineer	1
		27/12/2021	CDO	1
2	MAENDELEO	27/12/2021	Sokomatola Market Leaders	
		27/12/2021	Women	2
		27/12/2021	Men	8
3	RUANDA	27/12/2021		
		27/12/2021	Soweto Market Leaders	
		27/12/2021	Women	4
			Sub Total	26
4	Mbeya CC	28/12/2021	Stakeholders Mbeya cc	
		28/12/2021	Mbeya CC	12
		28/12/2021	FIRE	1
		28/12/2021	TANESCO	1
		28/12/2021	TARURA	2
		28/12/2021	MBEYA UWSA	1
		28/12/2021	TTCL	1
		28/12/2021	LRBWB	1
5	Ruanda	28/12/2021	Soweto market	
			Special Groups	
			Women	12
			Men	4
6	Maendeleo		Disabled	1
		28/12/2021	Sokomatola market special Group	
			Women	10
			Men	8
			Disabled	2
			Sub Total	40
7	Ruanda	29/12/2021	Soweto Market -Traders	
8	Ruanda	29/12/2021	Women	47
		29/12/2021	Men	26
		29/12/2021	Ward Leaders	4
			Sub Total	77
9	Iyela	30/12/2021	Ward Leaders	11
10	Maendeleo	30/12/2021	Ward leaders	5
			Sub Total	57
11	Maendeleo	31/12/2021	Sokomatola Market- Traders	
			Women	93
			Men	173
			GRAND TOTAL	636

5.4.1 Public Consultation and Engagement

5.4.1.1 Public Meetings

Dissemination of project information among communities within the proposed area for proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects through MEOs and WEOs and later through meetings was an important aspect of the public participation process, they needed to be appropriately informed about what is planned in their area to the larger groups and later on splits into groups for in-depth interview based upon their characteristics.

The community consultations were conducted with the intention to;

- Provide clear and accurate information about the Project to the communities
- Gathering from population and their representatives about main environmental and social concerns and perceptions regarding the terminal construction
- Gather opinions and suggestions directly from the communities on their preferred mitigation measures
- Gather opinions and concerns of the various minority groups of women, children, disabled and youth on the proposed Market construction and Improvement of Soweto and Sokomatola market.

The meeting started with providing preliminaries information about the Project. Cross cutting issues of Gender Based Violence, HIV/AIDs transmission awareness, Environmental issues taken into account (

Respecting Environmental needs and managing its environmental responsibilities, climate change resilience, and treat/mitigate the risks and uncertainties.



Picture 5-1: Consultation meeting with special groups traders in Sokomatola market

Source: Site Picture Dec 2021/Jan 2022



Picture 5-2: Consultation with Specials groups traders in Soweto market,
Source: Site Picture Dec 2021/Jan 2022



Picture 5-3 Public meeting with traders in Soweto market,
Source: Site Picture Dec 2021/Jan 2022



Picture 5-4: Public consultation meeting with traders at Sokomatola market
Source: Site Picture Dec 2021/Jan 2022



Picture 5-5: Councillor of Iyela ward on the left stressing a point during consultative meeting concerning proposed Construction of grain and fruit market
Source: Site Picture Dec 2021/Jan 2022



Picture 5-6: Consultative meeting with member of Maendeleo mtaa and leaders
Source: Site Picture Dec 2021/Jan 2022

5.4.1.2 Consultative Meetings with Mbeya CC' & Regional Secretariat and Other Stakeholders

Consultative meetings with other stakeholders included discussions with Council Management Team (CMT) which comprised of technical staff from all departments and Regional Secretariat. Stakeholders' meetings from other sectors included both managerial and technical staff, members from other government institutions i.e. TANESCO, TARURA, TTCL, Mbeya-UWASA, LRBWB e.tc,

During the meeting/discussions', The ESIA team was able to high-lighten an Overview of Project Justifications (Perspective, Purpose and Goal) Networking and Partnerships issues amongst t service institutions (TANESCO, Mbeya-UWASA, TARURA, TTCL etc.). in addition, pledge to come back for feedback after primary stakeholder's consultative meeting (needs assessments and anticipated positive or negative effects of the project



Picture 5-7: Consultation meeting with Council Management Team, TTCL, TANESCO, MBEYA-UWASA, BASIN WATER BOARD, TARURA,
Source: Site Picture Dec 2021/Jan 2022

Table 5-2: Stakeholders' Views

S/No	Institution/Village/NGO	Name & Position	Issues and Concerns	Responses	Project's Document Ref
	LAKE RUKWA BASIN	Grace Chitanda	-To avoid contamination of water during construction. - Affected source/ springs should be marked and being protected	All necessary requirements before the project start will be taken into consideration	
	MBY-UWASA	Eng. Leonidas Deogratias	-Relocations of pipes can cause damage; standby replacement should be needed so that services do not stop. - The Authority should be responsible for sewage system relocation. - Springs areas will be considered, and if there is no water supply, the quality of water will be determined. -The contractor to be given Water User permit or letter for temporary permit on which source to be used by the contractor. -NORPLAN to officially make a formal contract with institution that will be carrying out the HIV/AIDS preventive awareness campaign	All necessary requirements before the project start will be taken into consideration The contractor shall apply for water permit before	Project's permits

				starting construction activities	
	FIRE	Inspector Peter Mwakalinga (OFO)	<ul style="list-style-type: none"> -In the Markets, roads infrastructures to be easily accessible for fire trucks - Availability of water infrastructure to the market area or nearer (fire hydrants) - Contacts with UWSA to know exactly the point/area of UWASA infrastructures so that should not be damaged - Quality of markets walls between rooms (if one room catch fire other rooms should not be affected.) - Quality roof into the market not easily to catch fire. 	Noted and shall be included into the design	
	MBEYA CC	Ande Mwaipape (Procurement) MCC	If the Market building should be flats, should have business priorities to attract for high floors	The design consultant shall consider all FIRE requirements	
	MBEYA CC	Eng.Oswald Kasambala (City Eng)	-He advised, all markets should have a Day care for children (For those Women Traders who come with small kids)	All necessary requirements before the project start will be taken into consideration	

		Ally Abdalah, Ag. (CPEO)	-Markets should be built in phases because to relocate traders it is a complicated procedure - Garbage dumps should be large to accommodate bulk garbage	All necessary requirements before the project start will be taken into consideration	
		Zena Kapama (CCDO)	-Vegetation should be protected. -Trees are not allowed to be removed unless there is a necessity to do so, and the felled trees must be replanted. -Trees belong to the Council the permit to cut those trees will come from the Council and individual/private trees should be identified, and compensated	All necessary requirements before the project start will be taken into consideration	
	TANESCO	Ag. Principal Eng. Mageuzi Mathew	- REA & TANESCO will work together with TARURA to plan for relocation of infrastructures - The councillor will be responsible for compensation, relocation costs and duration will be done and included to the project budget - Underground infrastructure should not be affected during construction, it is good to know how deeply of the drainage	The contractor shall contact with the council before construction activities started	
	TTCL	Eng. Stephen M. Magafu	- Before demolishing or removing old pillars/wires, there must be changed over (we should relocate and rebuilt new pillar/wire then old pillar /wire relocated - There should be permits to drill/cut underground infrastructure or (cut across.) - The Contractors should identify mark, the area with	All necessary requirements before the project start will be taken into	

			<p>infrastructure, so that next time they will know exactly the area</p> <ul style="list-style-type: none"> - Removed a pillar may possible affect others, seriously attention is needed. - Before insuring any permits of removed any infrastructures of TTCL, they must go to the site to examine requirements to be considered. -BOQ, payment should made, TTCL will prepare BOQ and present to TANROARD for consultation about the procedures for relocation 	consideration	
		Musa Mgala	<ul style="list-style-type: none"> -Water drainage channels on both roadsides - should be filled with concrete and constructed in more safe and secured areas - Construct specific lanes to be used by bodaboda, bajaj and pedestrians - Specific number(group) of bodaboda to be given permission to park within the stand 	<p>-Drainage system shall be provided</p> <ul style="list-style-type: none"> - Safety features shall be provided 	
	IYELA WARD & Village Leaders	Gregory Sigala Chairperson of Block T	<ul style="list-style-type: none"> -The road should be wider and adhere all safety signs. -During the rainy season it causes flooding so should be built a very large drainage so that can collect water in one stream. Water from the Pambogo street should be constructed drainage ditches to be one. Exim Bank area have blocked water flows, Puma Petrol Station and Labarafu are rough areas the base on top should be long 	<p>Drainage system shall be provided</p> <ul style="list-style-type: none"> - Safety features shall be provided 	
		Enock Mwampagana. Chairperson Airport	He loved participation	Positive comments	
		Oswarld G. Mwalisi, Chairperson	<ul style="list-style-type: none"> -Water from the Pambogo and Mapambano street should built a large canal to flow water to river Nzovwe. -Any damage to the water pipes should returned immediately. 	<p>drainage system should be</p>	

		Pambogo	-The houses affected by construction should be considered.	built	
		Saimon Mwandambo (Member from Pambogo Street)	-The project area was so aggressive, that improving it will attract and eliminate the problem		
	IYELA WARD LEADERS & Village Leaders	Ally Mwakafula (Member from Airport Street)	-Water drainage channels along the road should be firmly built to allow water flow properly instead of cutting across the road. -Employment priority should be given to local youth (Airport street)	drainage system shall be built around old airport Employment opportunity shall be considered	
		Beston Jackos MEO, BLOCK T	- Road humps is essential in highly populated areas along the road - Specific lanes for bodaboda, bajaj, pedestrians to be included in the design -About Bus Stand he adviced to copy from others what they have done and should have a special place/area/section at the Bus Stand special for disabled.	road humps will be provided -noted	
		Mariam Q. Malo (Govt Street Member)	is happy and believing that ‘the future is exciting’	Positive comments	

	IYELA WARD LEADERS	Musa Ismail, Hon councillor of Iyela Ward.	<p>He is very positive with the project, people be prepared to receive the project with guests, -should be more carefully since there will be interaction of people to avoid communicable diseases like HIV/ AIDS and COVID 19</p> <ul style="list-style-type: none"> - Protection of building materials like cement to be stolen, youths of the project areas should be employed as casual labourers -Emphasizing the absence of corruption and to lower the price of human needs like foods, rooms for shelter -The road built earlier were not standardised, so they need quality roads with the presence of road signs - -People were throwing garbages into the ditch so they are now prohibited -They proposed the construction camp to be allocated within Old Airport 	<p>noted</p> <ul style="list-style-type: none"> -health measures will be provided Corruption measures shall be taken into consideration -road signs shall be provided 	
	MAENDELEO WARD LEDERS	<p>Issa Salimini , Hon. Councillor</p> <p>Boniface Siame, Chairman Sokomatola</p> <p>Luciano Mwamsojo,</p>	<ul style="list-style-type: none"> -Relocated area for traders, (Uwanja Ngoma) - Location should be improved (wooden cages) - New market, should be modern - Owners and tenants of cages they should be considered - All traders should be accommodated inside the market - Parking for crops lorries should be inside - Improved infrastructures needed, when it's raining , the water comes out from Loleza Sec. flows into the market -Improved infrastructures, toilets, lights -Uwanja Ngoma, toilets should be improved - Sewage infrastructure should be improved especially the area located for selling fish - Cold room to Sokomatola market is needed to store fish as it is a big fish market for Mbeya cc 	<p>All necessary requirements before the project start will be taken into consideration</p> <p>All necessary requirements before the project start will be taken into</p>	

	SOKOMATOLA Market Leaders	WEO Kilao Yusuph Member	<ul style="list-style-type: none"> -Improved infrastructures of the market, clean toilets. - Clean environments will attract customers. - Day care, special toilets and rooms for women. - Loading and Offloading area for 	consideration	
		Zenitha Mayega, Member	<ul style="list-style-type: none"> -Improved infrastructures of the market, clean toilets. - Clean environments will attract customers. - Day care, special toilets and rooms for women. - Loading and Offloading area for 	All shall be taken into the design	
		Masoud Sanje, Vice Chairman	<ul style="list-style-type: none"> -It is a famous market, surrounded by workers -Improve infrastructures will attract more customers. - Prolong time for trading - Office for market leaders -Guards needed from council - Improve the sewage system - Proposed temporary relocation is Uwanja Ngoma area. 	The economy will grow in the market area and individually as a result of market improvement	
		Joel Mahena Chairman	<ul style="list-style-type: none"> - One of the oldest market for Mbeya, other markets originated from here, new market should be visually attractive from outside to attract more customers. -Improved infrastructures will increase more customers, many visitors especially leaders used to do shopping at Sokomatola Market -Protection equipment's, defence will be strengthened - Grouping Traders based on similar product selling -Whole sale shops be allocated -Entrepreneurial, (Machinga) IDs should continue 	<p>The economy will grow in the market area and individually as a result of market upgrading</p> <p>Council shall relocate as per traders</p>	

				proposal	
		Ramadhani Mwinyi (Member)	<ul style="list-style-type: none"> - The names of traders who are in the market should be given during relocation- Traders with more than one place (Stalls) are not guaranteed to own more than one stall in the new market structure. -Database for all Beneficiaries needed. -Lights should be solar, TANESCO is expensive 	Trading officer from council and market leaders have started preparing data base to all traders	
		Rashidi Komba (Member)	<ul style="list-style-type: none"> - Market toilets should be free of charge (not commercial) 	Noted	

5.5 Summary of major concerns raised by the stakeholders

1. Temporary Relocation of the Market Business to Allow Construction; Traders are moving temporary other place to allow construction of the markets for Sokomatola will be allocated to Uwanja wa Ngoma and for Soweto is UMATI area, temporary places must be prepared, should be safe and in good conditions for their goods, Market stakeholders should be constantly updated and informed on the proceeding of the market construction.

2. Market Construction Design; The design should be modern with the quality and the capacity , infrastructures should be inclusive to accommodate people with special needs like the disabled, children and old people, firefighting and rescue facilities, building market section for each specific goods with specific facilities, the market floors should be cemented, designing of effective drainages and sewage waste systems, enough toilets, the present six toilets are not enough to accommodate all users, Should have cold room for Sokomatola, Baby care place and special toilet and room for women both markets parking areas for customers and trucks , Mostly they don't want flats/storey building. They prefer solar lights during operation phase because TANESCO is expensive.

3. Dust Production and Noisy Construction: Dust production, noise from moving construction equipment/machines is inherent to all road construction works. The contractor must have means to suppress the dust, reduce the level of noise and provide early notification to the communities about the proper time of construction.

6 ASSEMENT OF IMPACTS AND IDENTIFICATION OF ALTERNATIVE

6.1 Overview of chapter

This chapter outlines the potential negative and positive impacts that will be associated with the proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects. The impacts are related to activities to be carried out during construction, operation and decommission phases of the subproject.

The impacts of the project during each of its life cycle stages (pre-construction, construction, operation and decommissioning) have been categorized into: impacts on the biophysical environment, health and safety impacts and socio-economic impacts

6.2 Methodologies for Identification of Impacts

6.2.1 Matrix

For identification of subproject related impacts the Consultants team used the matrix method (screening matrix), which is based on identifying and qualifying actions of the sub project comparisons with natural and social environmental conditions. This generated anthropomorphic actions with impacts to the environment including health and safety to project's communities. The latter was carried out through the use of a cause-effect relationship matrix

6.2.2 Experts Knowledge

Expert or knowledge-based systems were used to assist diagnosis, problem solving and decision-making.

6.3 Identification of Impacts

Susceptible Impacts' Generating Actions

Definition of actions in each stage of the project was done, which were considered as actions caused by a simple, concrete, well-defined and located cause of the impact.

Table 6-1: Concrete Actions on the Project Phases

Phase	Action
Mobilization	Permitting and/Licensing
	Delimitation of working zones
	Construction of contractor's provisional facilities (building offices, machinery and equipment warehouses)
	Transportation of equipment, materials and Staff
	Storage of materials, equipment and machinery
Pre- construction & Construction	Sourcing/preparation and transport of construction materials, including stone quarrying, gravel, sand and stone borrowing, preparation of cement, timber, reinforcement bars, asphalt, casting of pre-cast materials such as concrete beam etc.
	Earth works including removal of top soils,/filling, and compaction
	Construction of markets which will include such activities as welding works, concrete works and metal works
Operation & Maintenance of the markets	Delivery of commodities to the markets and selling
	Solid waste management
	Wastewater management
	Utilities maintenance
Site Abandonment/	Dismantling and demolition of market structures

Decommissioning	
	Cleaning and rehabilitation

6.3.1 Impacts' Generating Actions

In this section, key biological, physical, and social receptors were selected from the baseline data. The impacts of the project activities on each of these “Components” were evaluated using a significance ranking process.

The environment complexity and its systemic nature were broken down into several levels to obtain simple and concrete factors:

Table 6-2: Components and Factors of the Environment

Environment			Component		Factor
Abiotic	Climate		Atmosphere		Temperature, Rainfall
					Air Quality
	Land		Dust		
			Structure		
			Quality		
			Relief		
	Surface water		Surface drainage (run-off patterns)		
			Quality		
Biotic	Flora	Terrestrial	Habitat		
			Distribution		
			Species within any category		
	Ecosystem		Biodiversity		
Landscape	Landscape		Quality-vegetation cover, soil erosion		
Socioeconomic	Economic		Change of land use		
			Jobs		
			Local and Regional Development		
	Services Demand		Water		
			Energy		
			Communication		
			Waste management and disposal		

6.3.2 Identification Methodologies for Project Impacts

6.3.2.1 Matrices (Activities-Environment Interactions)

Interactions between the project activities and the environment were identified for each stage of the project, by using a matrices presented below on tables 6-3 - 6-5

Table 6-3: Matrix 1 - Identification and Assessment for the proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects Environmental Impacts during Planning & Mobilization Phase

	Components		Clim ate	atmosphe re		Land		Surface Water			Ground Water		Flora		Fauna			Ecosyste m	Landsca pe		Socioeconomic																					
Phase	Actions	Factors	Climate & Microclimate	Air Quality	Noise & Vibration	Structure/Topography	Erosion/Quality	Surface drainage /Hydrology	Water Quality/Pollution	Downstream Effect	Aquifers recharge	Ground Water Quality	Vegetation Coverage	Species/Category	Terrestrial			Aquatic			Biodiversity	Quality	Change of Land use	Resettlement	Jobs/Employment	Local and Regional Development	At Risk Population i.e Child Labour	Occupational Health & Safety	Local Life Style	Improved Local Trade	Migrant Population	Gender Based Violence	Spread of HIV/AIDS	Community Stability	Cultural/Religion Values	Improved Market Condition	Tourism	Water	Energy/Electricity	Energy/Fuel Transfer	Communication	Waste Management & Disposal
															Habitat	Distribution	Species/Category	Habitat	Distribution	Species/Category																						
Mobilization	Allocation of Soweto and Sokomatola traders			x																				x	x	x				x		x										x
	Permitting and/Licensin g												x												x								x x							x		
	Delimitation of working zones																					x																				
	Land Clearance	x						x		x			x			x				x	x			x	x							x		x						x		
	Construction of contractor’s provisional facilities (building offices, machinery and equipment warehouses)			x	x	x			x		x			x		x	x	x								x	x	x				x				x		x			x	
	Transportatio n of equipment, materials and Staff			x	x															x							x			x	x		x			x						
	Storage of materials, equipment and machinery					x		x			x					x				x							x															

Table 6-4: Matrix 1 -Identification and Assessment of the proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects Environmental Impacts during construction Phase

	Components		Climate	atmosphere		Land		Surface Water			Ground Water		Flora		Fauna			Landscape		Socioeconomic																									
Phase															Terrestrial			Aquatic					Economic																	Services					
	Actions	Factors	Climate & Microclimate	Air Quality	Noise & Vibration	Structure/Topography	Erosion/Quality	Surface drainage /Hydrology	Water Quality/Pollution	Downstream Effect	Aquifers recharge	Ground Water Quality	Vegetation Coverage	Species/Category	Habitat	Distribution	Species/Category	Habitat	Distribution	Species/Category	Quality	Change of Land use	Resettlement	Jobs/Employment/ Risk of Child Labour	Local and Regional Development	Traffic	Occupational Health & Safety	Local Life Style	Improved Local Trade	Migrant Population	Gender Based Violence	Spread of HIV/AIDS	Community Stability	Cultural/Religion Values	Improved Market Condition	Tourism	Water	Energy/Electricity	Energy/Fuel Transfer	Communication	Waste Management & Disposal				
Construction	Sourcing/preparation and transport of construction materials, including stone quarrying, gravel, sand and stone borrowing, preparation of cement, timber, reinforcement bars, asphalt, casting of pre-cast materials such as concrete beam etc			x	x																			x		x	x		x											x					
	Earth works including removal of top soils/filling, and compaction			x	x	x	x	x	x	x		x			x	x					x			x	x		x						x				x	x	x	x	x				
	Construction of Market which will include such activities as welding works, concrete works and metal works			x	x	x	x	x	x												x			x	x		x			x	x	x	x		x			x	x		x	x			

Table 6-5: Matrix 3 - Identification and Assessment of the proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects Environmental Impacts during Operation & Maintenance and Decommissioning Phases

	Components		Climate	atmosphere		Land		Surface Water			Ground Water		Flora		Fauna			Ecosystem	Landscape	Socioeconomic																							
Phase																				Economic															Services								
	Action	Factor	Climate & Microclimate	Air Quality	Noise & Vibration	Structure/Topography	Erosion/Quality	Surface drainage /Hydrology	Water Quality/Pollution	Downstream Effect	Aquifers recharge	Ground Water Quality	Vegetation Coverage	Species/Category	Habitat	Distribution	Species/Category	Habitat	Distribution	Species/Category	Biodiversity	Quality	Change of Land use	Resettlement	Jobs/Employment/ Risk of Child Labour	Local and Regional Development	Traffic	Occupational Health & Safety	Local Life Style	Improved Local Trade	Migrant Population	Gender Based Violence	Spread of HIV/AIDS	Community Stability	Cultural/Religion Values	Improved Market Condition	Tourism	Water	Energy/Electricity	Energy/Fuel Transfer	Communication	Waste Management & Disposal	
Operation & Maintenance	Delivery of commodities to the markets and selling			x	x																				x	x	x	x	x	x	x				x			x	x				x
	Solid and liquid waste management	x	x									x															x														x		
	Terminal Maintenance		x	x	x																					x	x		x		x				x	x	x	x				x	
Decommissioning	Cleaning & Rehabilitation		x	x				x																	x	x												x				x	
	Dismantling and demolition of Market structures		x	x	x			x														x	x		x		x										x	x				x	

6.4 Impacts Prediction & Evaluation

After identification of impacts as a result of the proposed project's activities, their significance were determined, that is, whether they are acceptable or unacceptable and thus require mitigation. The significance of an impact was determined by considering the impact characteristics and the importance (or value) attached to them by the consultant team.

Information provided by the consultant's team of experts was used to calculate an overall impact score by multiplying the product of the nature, magnitude and the significance of the impact by the sum of the extent, duration and probability based on the following equation

$$\text{Overall Score} = (N \times M \times S) \times (E + D + P)$$

Where:

N = Nature;

E = Extent

M = Magnitude

D = Duration

P = Probability

S = Significance

Table 6-6: Impacts Methodology table

Nature				
Negative		Neutral		Positive
-1		0		+1
Extent				
Site	Local	Regional	National	International
1	2	3	4	5
Magnitude				
Low		Medium		High
1		2		3
Duration				
Short Term (0-5yrs)		Medium Term (5-11yr)	Long Term	Permanent
1		2	3	4
Probability				
Rare/Remote	Unlikely	Moderate	Likely	Almost Certain
1	2	3	4	5
Significance				
No Impact/None		No Impact After Mitigation/Low	Residual Impact After Mitigation/Medium	Impact Cannot be Mitigated/High
0		1	2	3

The analysis was conducted on a quantitative basis with regard to the nature, extent, magnitude, duration, probability and significance of the impacts. The following definitions and scoring system applied:

Table 6-7: Description of impact

Nature (/Status)

The project could have a positive, negative or neutral impact on the environment.

Extent

- Site – impact within the project site.
- Local – extend to the site and its immediate surroundings.

- Regional – impact on the region but within the districts.
- National – impact on an interregional scale.
- International – impact outside of Tanzania.

Magnitude

Degree to which impact may cause irreplaceable loss of resources.

- Low – natural and social functions and processes are not affected or minimally affected.
- Medium – affected environment is notably altered; natural and social functions and processes continue although in a modified way.
- High – natural or social functions or processes could be substantially affected or altered to the extent that they could temporarily or permanently cease.

Duration

- Short term – 0-5 years.
- Medium term – 5-11 years.
- Long term – impact ceases after the operational life cycle of the activity either because of natural processes or by human intervention.
- Permanent – mitigation either by natural process or by human intervention will not occur in such a way or in such a time span that the impact can be considered transient

Probability

- Almost certain – the event is expected to occur in most circumstances.
- Likely – the event will probably occur in most circumstances.
- Moderate – the event should occur at some time.
- Unlikely – the event could occur at some time.
- Rare/Remote – the event may occur only in exceptional circumstances.

Significance

Provides an overall impression of an impact's importance, and the degree to which it can be mitigated. The range for significance ratings is as follows

- 0 – Impact will not affect the environment. No mitigation necessary.
- 1 – No impact after mitigation.
- 2 – Residual impact after mitigation.
- 3 – Impact cannot be mitigated.

On the other hand, if the nature of an impact is 0 (neutral or no change) or the significance is 0 (no impact), then the impact is 0.

Impact Scores will therefore be ranked in the following way:

Table 6-8: Ranking of Overall Impact Score

Impact Rating	Low/Acceptable impact	Medium	High	Very High
Score	0 to -30	-31 to -60	-61 to -90	-91 to -117

Table 6-9: Environmental and Social analysis for Proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects at Mbeya City, TACTIC Project

Component		Factor/Impact	Nature		Extent (E)					Timing				Magnitude (M)			Duration (D)				Probability (P)					Significance (S)						Score
			+ve	-ve	Site	Local	Regional	National	Intern	Plannin	Mob & Cons	Decon	Op	Low	Med	High	ST	MT	LT	P	Rare	Unlik	Moder	Likel	Certain	Null	Low	Medium	High	NMS	E+D+P	
Impact Score Value			1	-1	1	2	3	4	5					1	2	3	1	2	3	4	1	2	3	4	5	0	1	2	3			
Climate		Microclimate		x		x					x	x	x	x					x						x		x			-2	10	-20
Atmosphere		Air Quality		x	x						x	x	x	x			x						x				x			-1	5	-5
		Noise		x	x						x	x	x	x			x						x				x			-1	5	-5
		Vibration		x	x						x	x	x	x			x						x				x			-1	4	-4
Land		Erosion/Quality		x	x						x	x		x			x							x			x			-1	6	-6
Surface Water		Surface drainage /Hydrology		x	x						x			x			x							x			x			-1	6	-6
		Water Quality/Pollution		x		x					x	x	x		x		x						x				x			-2	5	-10
Flora		Vegetation Coverage		x	x	x					x			x			x							x			x			-1	6	-6
		Species/Category		x	x						x			x			x							x			x			-1	6	-6
Ecosystem		Biodiversity		x	x						x	x		x			x						x				x			-1	4	-4
Landscape		Quality	x										x		x				x						x		x			2	5	10
Socio-economic	Economic	Change of Land use	x				x				x		x		x					x					x			x		4	12	-48
		Jobs/Employment	x				x				x	x	x		x			x						x				x		4	9	36
		Risk of child labor		x		x					x	x			x		x							x			x			-2	7	-14
		Risk of accident		x	x						x	x	x	x			x										x			-1	3	-3
		Local and Regional Development	x				x						x		x				x						x			x		4	11	44
		Occupational Health & Safety		x	x						x	x			x					x				x				x		-4	8	-32
		Improved Local Trade	x			x					x	x	x		x				x					x				x		4	9	36
		Vehicle traffic		x		x					x	x	x		x		x						x				x			-2	6	-12
		Migrant Population		x		x					x	x			x		x						x					x		-4	6	-24
		Gender Based Violence		x		x					x	x		x					x				x					x		-2	8	-16
		Spread of Covid-19, HIV/AIDS		x				x			x				x				x				x					x		-4	10	-40
		Community Stability		x		x						x	x		x				x				x					x		-2	8	-16
		Allocation of traders		x		x				x	x				x		x								x			x		-4	8	-32
	Services	Water		x		x					x			x			x						x				x			-1	6	-6
		Energy/Electricity		x		x					x			x			x						x				x			-1	6	-6
		Communication	x			x					x			x			x						x				x			1	6	6

Component		Factor/Impact	Nature		Extent (E)					Timing				Magnitude (M)			Duration (D)				Probability (P)					Significance (S)							Score
			+ve	-ve	Site	Loca	Regiona	Nationa	Intern	Plannin	Mob &Cons	Deco	Op	Low	Med	High	ST	MT	LT	P	Rare	Unlik	Moder	Likel	Certain	Null	Low	Medium	High	NMS	E+D+P		
Impact Score Value			1	-1	1	2	3	4	5					1	2	3	1	2	3	4	1	2	3	4	5	0	1	2	3				
		Waste Management & Disposal		x		x					x	x	x	x			x						x				x			-2	7	-14	

6.5 Impacts Analysis

A section below gives the analysis of the Identified significant impacts. The team focused on significant positive and negative impacts that were rated +2, +3 and -2, -3 respectively and proposed mitigation measures. The impacts during mobilization were found to be not significant (duration and magnitude) and therefore are not discussed here

6.5.1 The pre – construction phase

The pre-construction phase is associated with planning and designing activities as describe in Chapter 2. The following impacts are predicted for this phase.

Positive Impacts

6.5.1.1 Employment opportunities

During pre-construction phase, the Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market subprojects will create employment opportunities to various professionals directly or indirectly linked to the projects. The proposed project during pre-construction phase has created employment to the following teams:

- Engineering Design & Architectural teams for concept and design development.
- Environmental and social studies teams to carry out Environmental and Social Impact Assessments
- Economists and quantity surveyors for development of project proposal and economic viability
- Surveying Teams to conduct topographical survey.

The impact is considered positive, medium magnitude

Negative Impacts

6.5.1.2 Impacts of Solid Wastes

Solid wastes will be generated from activities such as drilling during geotechnical investigation. Expected soils piles will be disposed in an area that requires fills such as pot holes in unpaved Roads as well as waste from demolished building. The impact is considered negative, low magnitude

6.5.1.3 Economic loss due to Relocation.

Traders shall face economic losses on days that are required to move to an alternative area during construction phase. The impact is considered negative, medium magnitude

6.5.2 Impacts during Mobilization and Construction Phase

6.5.2.1 Soil and water pollutions due to leaking waste Hydrocarbons

The nature of the project requires use of trucks and stationary machines. The use of trucks and machinery which are not well maintained or serviced may lead to leakages thus polluting soil and consequently water resources. In addition, leaking fuel, oil or other fluids from poorly maintained vehicles and machinery on the construction site are also a potential source of environmental pollution.

The impact is considered negative, low magnitude

6.5.2.2 Deterioration of ambient air quality by dust and fumes

The air quality around project areas is affected by machinery due to exhaust emissions during clearing, transporting, placing, grading and compacting on the site. However, the extent of air pollution will be taken into consideration by understanding some of the project activities during non-working hours and weekends.

Air pollution from pollution contributes to a number of health issues and common diseases. It can increase a person's risk of cancer, impair the body's immune system and cause many respiratory problems. It is also commonly linked to asthma and is believed to be a contributor to birth defects. Dust may emanate from haulage of materials thus impairing visibility among vehicle drivers, cyclists and pedestrians, or during offloading at the market construction site. All in all such dust can be prevented by covering the haulage material and also the contractor can suppress dust by sprinkling water regularly at work places and all turning locations. The impact is considered negative, low magnitude.

6.5.2.3 Vibration from drilling machine and other heavy equipment

The vibrations are from vehicles and earth moving vehicles during mobilization phase. Vibration is common occupational hazards in many work places. However, the impact generated here are considered short term as they will be apparent only during the construction phase

Project activities (e.g. hammering /knocking and vehicular traffic) may have an impact on noise levels. Noise and vibration levels may increase during construction i.e. the contractors can deploy noisy generators. In case this is observed, measures for control of vibration and excessive noise levels beyond 85 Db (A) will be instituted. The impact is considered negative, low magnitude

6.5.2.4 Land and water pollutions from poor construction waste management

During the construction stage, solid waste in the form of overburden, rubbish, metal and garbage is expected resulting from land clearance and levelling, excavation and food preparation activities. If not properly disposed this may pollute soil and water resources. Potential impacts on the environment may also be associated with the handling, storage and disposal of construction material containing pollutants. In addition, human activity involving workers will also result into waste being generated. Environmental pollution may also results from domestic and sanitary wastes from workers at construction site. The impact is considered negative, low magnitude.

6.5.2.5 Skills transfer to locals

When the local people are employed during modern market construction, they will acquire skills in construction activities, which they can use in future. By employing as many local as possible, there will be skills transfer thus building capacity in the area.

The impact is considered positive, medium magnitude.

6.5.2.6 Safety and Health hazards due to construction works

The construction phase may generate safety hazards in relation to increases in traffic and access to the construction site (if not adequately controlled), and potential health impacts and nuisance factors due to noise, dust, vibrations and gaseous emissions. In addition, accidents may occur due to lifting and movement of heavy loads and construction Equipment. Machines such as Excavators etc. when controlled by unqualified operators may cause accidents. Accidents related to vehicles may occur due to truck hauling operations, transportation of materials e.g. sand and rock chips as well as careless driving habits etc. The impact is considered negative, medium magnitude.

6.5.2.7 Employment opportunities and Income generation

Employment opportunities during construction will increase the income, skills and knowledge to local labour force. Mostly men will benefit in this respect. If the estimated number 200 people required for the construction activities are deployed from street in the project area and

taking cognizant of the fact that most of these have dependents, then the number of people benefiting directly and/or indirectly will be of high significance.

This Impact is considered to be of positive, short-term to long-term and of Medium magnitude

6.5.2.8 Economic returns and promotions of secondary business

Economic-investment by the proponent shall increase wealth. PO-RALG shall also create market for goods, services, and especially construction inputs, which include raw materials, construction machinery and labour. There are usually several informal businesses, which come up during the construction period of such projects. These include activities such as food vending which benefit directly from the construction workers who buy food and other commodities from the vendors. This will promote the informal sector, as it will help them to earn a livelihood.

This Impact is considered to be of positive, short-term to long-term of medium magnitude.

6.5.2.9 Increased pressure on water demand

Both workers and the construction work will create an increased demand for water. Water will be mostly used in create mortal, concrete work, curing process and sprinkling to the project area to reduce dust and other related activities involved during construction phase. The water demand will increase due to the additional process of construction will be started

This Impact is considered to be of negative, low magnitude

6.5.2.10 Increased pressure on materials and energy

Several building materials will be required for construction of the proposed Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market. These will include sand, ballast, hard core, timber, cement, clay tiles, metal sheets, electrical gadgets, and steel, plumbing materials, glass and paint among others. Most of these materials will be obtained from the surrounding areas.

The main sources of energy that will be required for construction work will include mainly electricity and fossil fuels (especially diesel). Electricity will be used for welding, metal cutting/grinding and provision of light. Diesel will run material transport vehicles and building equipment/machinery. The Proponent should promote efficient use of building materials and energy through proper planning to reduce economic and environmental costs of construction activities.

This Impact is considered to be of negative, low magnitude.

6.5.2.11 Population influx and related Impacts

Construction works attracts influx of job seekers and opportunistic businesses into any project site. Considering the current HIV-AIDS level in Tanzania, increased population (job seekers) in Mbeya city area may result into increased HIV-AIDS transmission rates. Another problem associated with population influx is the increased pressure and demand on available social services. Effects of increased population will be short term. However, effects of HIV infections will be long term to victims. This impact is expected to be low, since the expected number of workers is minimum. The Contractor shall enforce a code of conduct for his team that will minimize social interactions with the community. The issue of Covid -19 is also highly associated with bringing people close; the labour force is likely to be affected by failing to keep social distances. The contractor will ensure that education and protection devices such as nose and face masks will be provided and used by all workers.

This Impact is considered to be of negative, short-term to long-term and of low magnitude

6.5.2.12 Gender based violence (GBV)

During mobilization and construction phase, the GBV shall be expected to those who seek for employment. The demand of employment will influence sex corruption in exchange of employment; moreover, workers may use their income to seduce people's wives and schoolchildren, which might result in families' misunderstanding and violence.

This is considered negative impact, short term with low magnitude

6.5.2.13 Risk of child labour

In the project area, many children work to ensure survival of their families and themselves.

During construction, the contractor/subcontractors might knowingly or unknowingly employ workers under the age of 18 which is against the labour law of Tanzania

During employment in construction and related activities child labour is associated with increased musculoskeletal disorders, physical impairment, and psychological distress. Risk of child labour is considered negative, low magnitude.

6.5.2.14 Interruption of area traffics and movements

It is expected that Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market, will take approximately one year to complete. Construction is likely to cause temporary traffic delays and temporarily make it more difficult to access various places along the road. The anticipated impacts to traffic resulting in congestion will continue until construction is complete.

The construction-related traffic associated with regular delivery of construction materials from quarry and borrows pit sites and other day-today construction equipment and materials, as well as daily worker traffic, will generate additional traffic. TANZAM highway is one of the busy road that connects other region and contrary will increase traffic due to construction activities can easily be accommodated from a capacity perspective, especially during off-peak hours.

The impact is considered negative of long-term duration and low magnitude

6.5.3 Impacts during Operation Phase

6.5.3.1 Disease's outbreaks and nuisance from mismanagement of liquid waste

Waste water mainly from sanitary appliances such as toilets and kitchen utility will be generated during operation phase. If this waste water is not properly managed e.g. if the waste water discharged into surrounding environment, the occupants and communities will be at risk of contracting diseases such as dysentery, cholera, etc. spread by vectors such as flies.

The impact is considered to be negative, long-term duration and of medium magnitude

6.5.3.2 Land and surface water pollutions due to mismanagement of solid waste

The major solid wastes during the operation phase are expected to be garbage, plastic containers and bags, remain of foods which are decomposed accordingly at the project site. A separate solid waste collection chamber will be designed on the extremity of the project premises for proper solid management. If these waste cannot well managed there is a potential of getting various hygienically related diseases such as cholera, diarrhoea, Stomach arch, trachoma etc. apart from getting disease there is also a nuisance situation to workers and people living near the premises.

The impact is considered to be negative, low significance.

6.5.3.3 Creation of employment

During operational people will be employed to work in various sections which includes, Security guards, cleaners etc. This will be an advantage to people living close to the project area as they will be employed and reduce the number of an employment in the area. By employing people they will be able to upgrade their living standard and sustain their life and increase income. The Impact of this is positive Long term and Medium significance

6.5.3.4 Improved Public security status

The Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market will improve security by improvising the security devices such as CCTV camera for purpose of improving surveillance. Increase sanitation facilities including special facilities for disabled. Furthermore, the designs and rehabilitation will include all the safety measures against fire such as fire alarms, fire doors, sprinkler systems, and horse reel as measures for combating fire.

The Impact is positive long time and medium significance

6.5.3.5 Increased revenue collection to the local authorities and government

Increased business spaces in the market will increase the number of traders who will rent space and in turn pay the rent and tax. The new facility will also assist in terms of improving the solid waste management system from the point of generation. These will include collection, separation, reduce, reuse and recycling. In long run reduce the solid waste management budget through reduction of the amount of waste that need to be transported to the final disposal site.

This impact is positive, long-term, and of medium significance

6.5.3.6 Developing new shopping experience

Soweto and Sokomatola Market has existed for long time as compared to other markets in Mbeya City. However, the condition of the market and the arrangement of the trades scarred many from using the services in this market. Thus, the rehabilitation and construction of the new market is expected to improve the condition in the market leading to new experience for Mbeya city and the surrounding areas. The proposed market facility will create a new and modern shopping experience. Development of parking space will improve the condition and minimize the street parking

This impact is positive, long-term, and of high significance.

6.5.3.7 Increased pressure on social services and utilities

The project is expected to accommodate a more traders; increase in the size of number of people it accommodates has the potential to increase pressure on social services and utilities such as water, wastewater and solid waste collection facilities, electricity etc. The demand may strain the existing service delivery system in one way or the other. The impact is considered negative, long-term and of medium significance

6.5.3.8 Health and Safety risks due to fire hazards

The project is very prone to fire hazards because of different types of combustible materials and machines which, are used and installed, respectively. Electrical fault is by large the main culprit in fire accidents in blocks in Tanzania. The components of a fire to start are fuel (combustible substance), heat and oxygen. Unless all three are present fire will not occur. Fire can cause the following effects: Loss of lives; Serious Injuries and Loss of properties etc.

The impact is considered negative, long term and of low significance

6.5.4 Decommissioning Phase

6.5.4.1 Noise pollution and vibration associated with demolition activities

The demolition process will entail removal of roofing materials using crowbars and hammers, breaking of walling and reinforced slabs using sledgehammers and/or jackhammers, which utilize compressed air and lowering of materials from high to low levels. The exercise will therefore entail working at high level and all the necessary health and safety measures will be implemented including provision of personal protective equipment such as, safety harnesses, helmets, gloves, respirators, safety shoes, coveralls, goggles and ear protectors.

This is considered to be negative, short-term and of low significance.

6.5.4.2 Unsightly conditions due to mismanagement of generated decommission solid waste

Demolished building materials like bricks, stones, metal, and wood materials if stockpiled over the ground surface will ultimately cause solid wastes. If such materials let remain on the site for long period of time may have other side impacts to the environment and human health. Solid wastes to be generated during structures removal include but not limited to; scraps of wood and metals materials.

This is considered to be negative, short-term and of low magnitude.

6.5.4.3 Air pollution (Dust and exhaust emissions)

Demolition activities will cause dust emissions from tearing of the structures. The dusts may go beyond the projects site hence cause nuisance and disturbance to nearby other land users. Furthermore, dust will be caused during transportation of demolished materials.

This is considered to be negative, short-term and of low magnitude.

6.5.4.4 Loss of revenue to both government and the project owner

During mobilization, construction and operation phases both local and Government will be receiving revenue from the project. In case of decommissioning of the project, revenue generation will cease. Loss of revenue is considered negative, long-term duration, high significance.

6.5.4.5 Workers accidents and hazards during demolition

Accident may occur during demolition activities this can caused by vehicle accidents, falling of heavy object, falling of the building, electricity short during remove of electricity wires, and accident due to absence of person protective equipment.

This is considered to be negative, short-term and of high significance

6.5.4.6 Loss of employment

If for whatever reason the project is closed down, the people employed by the project will lose their jobs. This will have significant impact to these people and their families.

Loss of Employment is considered negative, long-term duration, high significance.

6.6 Project Alternatives

Consideration of project alternatives is crucial in ensuring that the developer and decision makers have a wider base from which they can choose the most appropriate option. The project will be on rehabilitation of the Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market. The rehabilitation of the markets in Soweto and Sokomatola is likely to improve the business environments leading improvement on the income to the traders in the market. On the other hand, this will also increase the government's revenue accruing from the marketing activities. Construction of grains and fruit market will increase the business

spaces and reduce the scarcity of commercial spaces for street vendors who were recently removed from the roadsides.

6.6.1 No Project Alternative

The “No project” alternative” means the project should not be implemented at all and therefore the traders will still be in poor conditions, with no supporting infrastructure for the market. Furthermore, no alternative for new market will mean that the users of the existing facility will continue to struggle with poor solid waste management, poor sanitary facilities and risk of contracting non-communicable disease and there will be lost opportunity for skills transfer and education/training of local communities;

6.6.2 Alternative Relocation of Traders during Construction Phase

The following factors were considered in the choice for allocation of traders during the construction phase from their markets;

- i. Accessibility in terms of vehicles, pedestrians
- ii. Within the same administrative boundaries (Wards)

For Soweto market, it has been identified that the areas for temporally allocation of traders during construction phase is Umati (Open space) the site is close to Soweto market about 0.8km walking distance and easily accessible by vehicles (*figure 6.2.2*) below. The estimated duration for trades allocation shall be determined by the construction period as might vary depend on the weather and geographical of the project area.



Picture 6-1: Umati area: alternative site for trader’s allocation during construction phase

Source: Site Picture Dec 2021/Jan 2022

For Sokomatola market, identified area for alternative allocation of traders during construction is Uwanja Ngoma, within the wards , the area in about 0.9km from Sokomatola market and easily accessible by vehicles and walking



Picture 6-2: Uwanja ngoma alternative area for Market trader's allocation during construction phase
Source: Site Picture Dec 2021/Jan 2022

6.6.3 Alternative Site

The option of using another site apart from that of the proposed one was also considered. However, the proposed site was observed to have the following advantages over others;

- The site is owned by the Government (Mbeya City Council) in which no need to buy a new piece of land;
- The site is located on a favourable piece of land which is close to transportation facilities
- The sites area in commercial areas and thus can accessible from all directions and in plan of developing all infrastructure such as water supply and electricity

6.6.4 Energy Alternative

The use of other alternative energy sources apart from power from the National grid and diesel generators were considered such as use of solar energy

6.6.5 Water Alternative

Water is becoming a scarce resource by the day in the area and generally in many areas in Tanzania. Therefore, the proposed Morden Market looked into methods of sustaining water supply.

Alternative one: Water Supply (surface water) from the operating water utility company

Water supply (surface water) from the operating water utility company, Mbeya Urban water Supply and Sanitation Authority (MBY-UWASA).has to be considered the major source of water supply to the proposed project.

Alternative Two: Groundwater Extraction

Ground water is another alternative option for water supply and can supplement the water supply at the project site at such times of water shortage and scarcity. It has to be noted that before establishing the groundwater as sources of water supply, an investigation in terms of groundwater quantity and quality has to be thoroughly carried out and ascertained

Alternative three: Rainwater Harvesting

This is another option that has to be looked at. The rainwater will be harvested from both roof and land catchment. It will entail the design of rainwater harvesting system

6.6.6 Collection, Treatment and disposal of Sewage

Alternative first: Use of septic tank and soak pit

This involves the onsite treatment by existing septic tank and soak away pit, which allow wastewater to be treated biologically by microorganisms through anaerobic fermentation (septic tank) and later

released into soil via soak-away pit. Septic tank and soak pits demand little space compared to other options.

Advantage of this option

- This is the option is commonly used in Mbeya City Council;
- Operation of this option is cheap;
- There is no sewerage system near the project site.

Disadvantage of this option

- This option need big space for installation of septic tank and soak pit;
- Time during emptying when septic tank become full by

Alternative second: Use of Sewerage system

This involves offsite treatment by collection and transport of wastewater direct through the pipes from the premises (bathrooms and toilets) to designated area for treatment. This is applicable when at propose site are present of sewerage system.

Advantage of this option

- Save the space used. There is no need of big space for installation of septic tank and soak pit;
- Time and offloading Trucks are not needed to offload full septic tanks;
- Operation of this option is cheap;

Disadvantage of this option

- There is no sewerage system near the project site.

NB: Based on the above reason, septic tank and soak pit is best option as wastewater management at proposed project.

6.6.7 Solid Waste Management Alternatives

The proposed project will generate some quantities of solid waste during all phase of construction. An integrated solid waste management system is recommendable

Alternative one: Source reduction

The proponent will give priority to Reduction of solid waste at Source of the materials. This option will demand solid waste management awareness programme.

Alternative two: Recycling

Recycling, of the solid waste is the alternative way of solid waste management by applying the role of separating solid waste at source point of generation in order to recycle or re use the waste

Alternative three: Transportation of waste

- Transfer the collected amount of waste from the special designated area into lager dump site. The containers have to be placed at well accessible, strategically chosen sites
- Transport of the loaded containers to the Landfill and exchange of containers, so as to guarantee permanent disposal capacity at the container sites. The containers are exchanged and the transport vehicles operate continuously

between different sites and the landfill site. These is the option mostly used at Mbeya City council

7 ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

7.1 Overview of chapter

The proposed mitigation measures provide the basis for the development of environmental management plan and monitoring plan for the Project, required to meet World Bank's and NEMC's environmental approval and permitting requirements.

Mitigation measures proposed herein are the result of process that took place between the environmental impacts prediction by the ESIA consultant and the engineering design team. Based on environmental impact results, further mitigation measures were incorporated into the design of the Project to ensure the protection of the physical, biological and human environments.

A mitigation measure for this project implies good engineering practice that shall be adhered to during the design and construction phases. The developer (PO-RALG) is committed to the implementation of mitigation measures contained in this report.

7.2 Objective and Components of the ESMP

The basic objectives of the EMSP are to:

- To ensure that all mitigation measures and monitoring requirements will actually be carried out at different stages of project implementation and operation - pre-construction, construction, and operation and maintenance;
- Recommend a plan of action and a means of testing the plan to meet existing and projected environmental and social problems;
- Establish the roles and responsibilities of all parties involved in the project's environmental and social management;
- Describe mitigation measures that shall be implemented to avoid or mitigate adverse environmental and social impacts and maximizing the positive ones;
- Ensure implementation of recommended actions aimed at environmental and social management and its enhancement;
- Ensure that the environment and its surrounding areas are protected and developed to meet the needs of the local people, other stakeholders and safeguard the interests of the common people.
- Ensure sufficient stakeholder engagement activities to mitigate communities and project itself against the various risks; and
- Include specific measures and ensure views from vulnerable groups (e.g., children, women, disabled and elderly) have been incorporated into the project's design.

7.3 Capacity Building & Training

Capacity building programs will be conducted to all the Project staff including engineers and relevant stakeholders during initial stages of the Project implementation to sensitize them on the management of environmental and social issues of the Project, and to build the requisite capacities.

Within the project's area, the municipal/districts' departments have got at least one (1) environmental officer who solely deals with environmental issues on daily basis. Otherwise, other staffs in these departments and whole Councils has limited knowledge of newly operating WB safeguard requirements and generally lack experience in environmental and social issues

Such low capacity represents a risk to the implementation of environmental and social requirements as contained in the ESMPs and as required by the WB's Environmental and social Framework (ESF) of 2018. It is therefore necessary to address this weakness through

capacity building through technical assistance that will support the Municipal and districts' Councils during the implementation of the ESMPs. The technical assistance will specifically provide the necessary support to districts in their work with contractors as well as other entities involved in the implementation of the ESMPs.

The technical assistance will include support to experts and training that will cover:

- General knowledge of environmental and social requirements and project procedures, and
- Important specific knowledge in environmental and social procedures and requirements for project staff, consultants, and national contractors.

Specifically, the above will include: assistance with the preparation of documents and implementation of training programs on E&S management and monitoring for contractors and relevant staff of the project's municipal/districts to perform their tasks. It will also include assisting municipal/districts' environment and social staff with the review of contract documents to ensure compliance with the ESMPs. It will further provide general guidance as requested by districts to enhance overall project environmental and social implementation and performance.

Given the nature, locations, and scale of construction, it is anticipated that the safeguard technical assistance support and training will be provided at least during the first 1 year of the subproject implementation. The WB safeguard specialists will support this in the capacity building program, in particular in the training activities as appropriate.

7.4 Awareness and Education

The Contractor should encourage environmental awareness among his foremen before and during implementation of upgrading modern market project. The education will include:

- Provide copies of the ESMP and discuss its contents with all construction foremen
- Discuss techniques and answer questions about erosion and pollution control at regular site safety meetings
- Demonstrate proper housekeeping methods
- Inform the foremen of actions to take in the event of spill of hazardous materials (oil, fuel, and concrete)
- Post sign at key locations reminding foremen how to properly store construction materials, handle and dispose of toxic wastes, dispose of wash water, and similar instructions
- Remind foremen of fines, penalties that may be levied against the project by the local permitting agencies control environmental destruction is not adhered to.

The main Contractor needs to be aware that he/she is responsible for education and informing all Sub-Contractors (if any).

7.5 Gender Based Violence and Sexual Exploitation Abuse/Sexual Harassment

7.5.1 Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) Response and Prevention Action Plan

To mitigate these risks the project Contractor will develop and implement a Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) Prevention and Response Action Plan with an Accountability and Response Framework as part of the C-ESMP. The SEA/SH Action Plan will follow guidance on the World Bank's Good Practice Note for Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) in Investment Project

Financing involving Major Civil Works (February 2020). The SEA/SH Action Plan will include how the project will ensure necessary steps are in place for:

- Prevention of SEA/SH: Integrate provisions related to sexual harassment and sexual exploitation and abuse in the employee Code of Conducts (COCs) and ongoing sensitization of staff on responsibilities related to the COC and consequences of non-compliance; project-level IEC materials.
- Response to SEA/SH: including survivor-centered coordinated multi-sectoral referral and assistance to complainants according to standard operating procedures; staff reporting mechanisms; written procedures related to case oversight, investigation and disciplinary procedures at the project level, including confidential data management.
- Engagement with the community: including development of confidential community-based complaints mechanisms discrete from the standard GRM; mainstreaming of Prevention SEA/SH awareness-raising in all community engagement activities; community-level IEC materials; regular community outreach to women and girls about social risks and their PSEA/SH -related rights.
- Management and Coordination: including integration of prevention and response to SEA/SH in job descriptions, employment contracts, performance appraisal systems, etc.; development of contract policies related to SEA/SH, including whistle-blower protection and investigation and disciplinary procedures; training for all project management; management of coordination mechanism for case oversight, investigations and disciplinary procedures; supervision of dedicated PSEA/SH focal points in the project and trained community liaison officers.
- Ensure clear human resources policy against sexual harassment that is aligned with national law.
- Ensure appointed human resources, environmental, social and health and safety personnel is well trained on PSEA/SH;
- Mandatory and repeated training and awareness raising for the workforce about refraining from unacceptable conduct toward local community members, specifically women;
- Informing workers about national laws that make sexual harassment and gender-based violence a punishable offence which is prosecuted;
- Introducing a Worker Code of Conduct as part of the employment contract, and including sanctions for non-compliance (e.g., termination), and
- Contractor to adopt a policy to cooperate with law enforcement agencies in investigating complaints about SEA/SH.

7.5.2 Prevention and Mitigation of Gender Based Violence (GBV) at the community

The contractor will implement provisions that ensure that gender-based violence at the community level is not triggered by the Project, including:

- effective and on-going community engagement and consultation, particularly with women and girls;
- Review of specific project components that are known to heighten GBV risk at the community level, e.g., compensation schemes; employment schemes for women; etc.
- Specific plan for mitigating these known risks, e.g., sensitization around gender equitable approaches to compensation and employment; etc.

- The contractor will ensure adequate referral mechanisms are in place if a case of GBV at the community level is reported related to project implementation

7.6 The Management Plan

The following table (Table 7.1) provides a summary matrix of potentially significant environmental impacts, management measures, target levels, responsible entities and estimated costs for the proposed project

Table 7-1: Environmental & Social Management Plan for Improvement of Soweto and Sokomatola Markets

Phase s	Impact	Mitigati on Ref	Proposed mitigation measures	Responsibility/ institution	Mitigation cost (Tshs)	Mitigatio n cost (USD)
Mobilization & Construction Phase	Deterioratio n of ambient air quality by dust and fumes	M1.1	<ul style="list-style-type: none"> Speed of vehicles should be controlled to reduce dust by use of speed calming devices e.g. rumble strips/humps 	Mbeya City Council	5,000,000	2,155.17
		M1.2	<ul style="list-style-type: none"> Water should be sprinkled (3-4 times a day) to suppress dust especially in the dry season not only where the works are on-going but in all the affected roads 	Mbeya City Council	30,000,000	12,931.03
		M1.3	<ul style="list-style-type: none"> All trucks carrying the granular material should be covered 	Mbeya City Council	500,000	215.52
		M1.4	<ul style="list-style-type: none"> Minimize vegetation clearing around all work sites including proposed campsite 	Mbeya City Council	5,000,000	2,155.17
		M1.5	<ul style="list-style-type: none"> Construction equipment and vehicles should be maintained to minimize gaseous emissions 	Mbeya City Council	10,000,000	4,310.34
		M1.6	<ul style="list-style-type: none"> Provision of dust respirator with filters (N95) to employees exposed directly during vegetation clearance excavations, transportation, concrete works, asphalt works 	Mbeya City Council	6,000,000	2,586.21

	Noise Generation	M2.1	<ul style="list-style-type: none"> Construction equipment should be well maintained to minimize cracking noise from exhaust pipes 	Mbeya Council	City	10,000,000	4,310.34
		M2.2	<ul style="list-style-type: none"> Proper guidelines for workers will be put in place as a need to maintain order and minimizing noise concerns. 	Mbeya Council	City		
		M2.3	<ul style="list-style-type: none"> Noisy construction operations to be executed during the day (before 6pm) 	Mbeya Council	City	3,000,000	1,293.10
		M2.4	<ul style="list-style-type: none"> Provide hearing protection devices to all workers exposed to excessive noise 	Mbeya Council	City	5,000,000	2,155.17
		M2.5	<ul style="list-style-type: none"> In cases where the very noisy work has to go on at night or during a longer period than one day in a place, a noise shield will be erected around the working area. 	Mbeya Council	City	5,000,000	2,155.17
	Land and water pollutions from poor construction waste management	M3.1	<ul style="list-style-type: none"> Establish good and efficient solid waste disposal and collection system within the premises by contracting to the licensed and experience waste management contractor AND Provision of facilities for proper handling and storage of construction materials to reduce the amount of waste caused by damage or exposure to the elements; 	Mbeya Council	City	15,000,000	6,465.52
		M3.2	<ul style="list-style-type: none"> Use of durable, long- lasting materials that will not need to be replaced as often, thereby reducing the amount of construction waste generating over time; 	Mbeya Council	City	N/A	

	M3.3	<ul style="list-style-type: none"> • Purchase of perishable construction materials such as paints incrementally to ensure reduced spoilage of un used materials; 	Mbeya Council	City	15,000,000	6,465.52
	M3.4	<ul style="list-style-type: none"> • Provision of facilities for proper handling and storage of construction materials to reduce the amount of waste caused by damage or exposure to the elements 	Mbeya Council	City		
	M3.5	<ul style="list-style-type: none"> • Use of building materials that have minimal packaging to avoid the generation of excessive packaging waste; 	Mbeya Council	City		
	M3.6	<ul style="list-style-type: none"> • Use of construction materials containing recycled content when possible and in accordance with accepted standards; 	Mbeya Council	City		
	M3.7	<ul style="list-style-type: none"> • Wastes which will be inadvertently dumped in unauthorized locations will be removed immediately and disposed at an approved site 	Mbeya Council	City		
	M3.8	<ul style="list-style-type: none"> • The contractor shall have adequate facilities for handling the construction waste. A large Skip Bucket shall be provided at the site 	Mbeya Council	City		
	M3.9	<ul style="list-style-type: none"> • The contractor shall have adequate facilities for handling the construction waste. A large Skip Bucket shall be provided at the site; Including spoil material, Overburden and Stripped Vegetation 	Mbeya Council	City	3,000,000	1,293.10

	Employment opportunities and Source of Income	M4.1	<ul style="list-style-type: none"> Sensitization of communities on the existing work opportunities in the project 	Mbeya Council	City	10,000,000	4,310.34
		M4.2	<ul style="list-style-type: none"> Training in entrepreneurship skills 	Mbeya Council	City	5,000,000	2,155.17
		M4.3	<ul style="list-style-type: none"> Affirmative action in employment to provide women with an opportunity to earn cash income. 	Mbeya Council	City		
		M4.4	<ul style="list-style-type: none"> Promote labour-based construction works to employ unskilled 	Mbeya Council	City	N/A	
		M4.5	<ul style="list-style-type: none"> Advertise the jobs locally to attract skilled labour resident to the areas 	Mbeya Council	City		
		M4.6	<ul style="list-style-type: none"> First priority for employment shall be given to local people from the project's villages 	Mbeya Council	City		
	Health and Safety	M5.1	<ul style="list-style-type: none"> Regular maintenance of equipment, engines and electrical installations; maintaining clean and tidy workplace, providing guard rails, signals and lighting; providing work site rules, safe working procedures and allocating appropriate places to carry out the work. 	Mbeya Council	City	30,000,000	12,931.03

		M5.2	<ul style="list-style-type: none"> Contractor should locate stores to reduce risks to workers on site and arrangements for the safe use, handling, storage, transport and disposal of articles and substances are made before work starts to the satisfaction of the engineer 	Mbeya Council City	20,000,000	8,620.69
		M5.3	<ul style="list-style-type: none"> The Contractor should provide relevant protective clothing and safe equipment to all staff and labour engaged on the Works sites to the satisfaction of the engineer. These will include; high visibility vests, protective boots, gloves, masks, protective footwear and hard hats 	Mbeya Council City	30,000,000	12,931.03
		M5.4	<ul style="list-style-type: none"> The Contractor should designate a full time Safety Officer qualified to handle the specific tasks 	Mbeya Council City	50,000,000	21,551.72
		M5.5	<ul style="list-style-type: none"> All employees shall be trained in how to ensure their own safety and reduce risks at work site 	Mbeya Council City	30,000,000	12,931.03
		M5.6	<ul style="list-style-type: none"> Contractor should provide and maintain access to all work places in the condition that will reduce risks. 	Mbeya Council City	25,000,000	10,775.86
		M5.7	<ul style="list-style-type: none"> Contractor should provide adequate waterborne sanitation, and refuse collection and disposal complying with the laws of Tanzania or By-laws 	Mbeya Council City	15,000,000	6,465.52
		M5.8	<ul style="list-style-type: none"> Latrines and other sanitary arrangements should be put in place where work is in progress. 	Mbeya Council City	15,000,000	6,465.52

		M5.9	<ul style="list-style-type: none"> Contractor shall comply with Government regulations in case of epidemic outbreaks 	Mbeya Council	City	30,000,000	12,931.03
		M5.10	<ul style="list-style-type: none"> The Contractor should manage the risk of spreading of contagious diseases. 	Mbeya Council	City	20,000,000	8,620.69
		M5.11	<ul style="list-style-type: none"> Contractor shall reduce occupational health hazards 	Mbeya Council	City	30,000,000	12,931.03
	Visual impact	M6.1	<ul style="list-style-type: none"> Control clearing on the area in the construction limits and quick vegetation upon completion of construction; 	Mbeya Council	City	5,000,000	2,155.17
		M6.2	<ul style="list-style-type: none"> Planting mixtures of grass, shrubs and trees should be tailored to help re-establish the original site flora 	Mbeya Council	City	N/A	
		M6.3	<ul style="list-style-type: none"> Adopt landscape design principles e.g. Building must be in harmony with existing landscape thus landscape to blend and follow the surrounding topography without excessive cuts and fill; 	Mbeya Council	City	N/A	
		M6.4	<ul style="list-style-type: none"> All the exposed areas should be planted with grass once construction activities are complete. This should be undertaken in phases; grassing activities should be undertaken on a section-by-section basis to bind the loose soils together preventing accelerated rates of soil erosion. 	Mbeya Council	City	5,000,000	2,155.17

	Solid Waste Generation of (Including spoil material, Overburden and Stripped Vegetation)	M7.1	<ul style="list-style-type: none"> Any other top soil remaining should be stored and used in landscaping for grassing and tree planting 	Mbeya Council City	10,000,000	4,310.34
		M7.2	<ul style="list-style-type: none"> Waste will have to be sorted into degradable and non-degradable eg metals etc 	Mbeya Council City		
		M7.3	<ul style="list-style-type: none"> Waste management hierarchy (3 or 4Rs – reduce, reuse, recycle (and recover) which is an acceptable guide for prioritizing waste management practices should be considered 	Mbeya Council City	5,000,000	2,155.17
	Influx of People into the Area	M8.1	<ul style="list-style-type: none"> Local labour should be given priority for employment as this will solve many of the problems associated with influx of people 	Mbeya Council City		
		M8.2	<ul style="list-style-type: none"> There should be sensitization of the workers in cultural values and norms of the area. 	Mbeya Council City	5,000,000	2,155.17
		M8.3	<ul style="list-style-type: none"> The project should plan for additional infrastructure to cater for increased population for example, water sanitation and health facilities 	Mbeya Council City		
		M8.4	<ul style="list-style-type: none"> There is need to strengthen local authorities so that they are in position to handle the increased cases of indiscipline and conflict. 	Mbeya Council City	5,000,000	2,155.17

		M8.5	<ul style="list-style-type: none"> Project should set up internal controls and security systems for its materials. 	Mbeya Council	City		
Increased Risk of Diseases, HIV/AIDS, Covid -19		M9.1	<ul style="list-style-type: none"> The project should work closely with respective government departments, local NGOs, and/or faith based organizations, and local communities involved in HIV 	Mbeya Council	City		
		M9.2	<ul style="list-style-type: none"> Mega awareness campaigns on HIV/AIDS and other STDS should periodically be organized 	Mbeya Council	City	25,000,000	10,775.86
		M9.3	<ul style="list-style-type: none"> Counselling and testing services to the workers and community members should constantly be made available. 	Mbeya Council	City	12,000,000	5,172.41
		M9.4	<ul style="list-style-type: none"> There is need for continuous sensitization of the workers and community members about HIV/AIDS and other STDs. 	Mbeya Council	City		
		M9.5	<ul style="list-style-type: none"> Posters should be displayed on the market with local language on the precaution measures of HIV/AIDS/STDs and Covid-19 	Mbeya Council	City	3,000,000	1,293.10
		M9.6	<ul style="list-style-type: none"> Covid-19 safety precaution measures should be implemented as per the Ministry of health guidelines 	Mbeya Council	City	5,000,000	2,155.17
	Traffic & Road Accidents	M10.1	<ul style="list-style-type: none"> The level of literacy of the affected people must be taken into consideration in the communication methods and signage design. 	Mbeya Council	City		

		M10.2	<ul style="list-style-type: none"> To ensure the safety of people living near road, there must be adequate markings and signage 	Mbeya Council	City	1,000,000	431.03
		M10.3	<ul style="list-style-type: none"> the contractor to prepare specific Traffic Management 	Mbeya Council	City	1,000,000	431.03
		M10.4	<ul style="list-style-type: none"> Implementation of the access roads for construction vehicles within RoW and safety measures used for pedestrian access 	Mbeya Council	City	10,000,000	4,310.34
		M10.5	<ul style="list-style-type: none"> Communicate to affected communities along all road sections and paths that will be affected and proposed for the transport routes during the construction period (which sections will be closed and till when, where the traffic will be diverted). 	Mbeya Council	City	15,000,000	6,465.52
		M10.6	<ul style="list-style-type: none"> Public notification of any traffic-related concerns, such as road/streets closings 	Mbeya Council	City	500,000	215.52
	Gender Based Violence (GBV)	M11.1	<ul style="list-style-type: none"> The contractor will implement provisions that ensure that gender-based violence at the community level is not triggered by the Project, including: 	Mbeya Council	City	7,000,000	3,017.24
		M11.2	<ul style="list-style-type: none"> Effective and on-going community engagement and consultation, particularly with women and girls in subprojects area and learning institutions in the subproject area; 	Mbeya Council	City	6,000,000	2,586.21

		M11.3	<ul style="list-style-type: none"> Review and ensure that specific project components that are known to heighten GBV risk at the community level, e.g. compensation schemes; employment schemes for women; etc. are managed and implemented in a manner that will safeguard against violence against women. 	Mbeya Council City		
		M11.4	<ul style="list-style-type: none"> The contractor will ensure adequate referral mechanisms are in place if a case of GBV at the community level is reported related to project implementation. 	Mbeya Council City	4,000,000	1,724.14
		M11.5	<ul style="list-style-type: none"> Ensure involvement of women in consultative meetings 	Mbeya Council City	2,000,000	862.07
		M11.6	<ul style="list-style-type: none"> Ensure equal pay for equal work for women and men for all construction and maintenance work. 	Mbeya Council City		
		M11.7	<ul style="list-style-type: none"> Ensure that basic facilities (separate toilets, clean water) are provided for female as well as male construction workers at construction sites. 	Mbeya Council City	5,000,000	2,155.17
		M11.8	<ul style="list-style-type: none"> Prevention of Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH): Integrate provisions related to sexual harassment and sexual exploitation and abuse in the employee Code of Conducts (COCs) and ongoing sensitization of staff on responsibilities related to the COC and consequences of non-compliance; project-level IEC materials. 	Mbeya Council City	10,000,000	4,310.34

	Risk of Child Labour	M12.1	<ul style="list-style-type: none"> The PO-RALG and contractor should ensure no employment to persons under 18years of age 	Mbeya City Council	5,000,000	2,155.17
		M12.2	<ul style="list-style-type: none"> Labor inspectors should enforce the labor law on any violations during construction and all violations be treated as criminal offenses. 	Mbeya City Council	2,000,000	862.07
		M12.3	<ul style="list-style-type: none"> Awareness to the public on minimum age for employment and labour rights should be conducted 	Mbeya City Council	5,000,000	2,155.17
		M12.4	<ul style="list-style-type: none"> Parents and project communities should ensure children's access to basic services i.e. food, shelter, education, health, sanitation and hygiene. 	Mbeya City Council		
		M12.5	<ul style="list-style-type: none"> Grievance handling and resolving land-related disputes 	Mbeya City Council	30,000,000	12,931.03
Operation Phase	Land and surface water pollutions due to mismanagement of solid waste	M13.1	<ul style="list-style-type: none"> Waste bins shall be placed at appropriate locations around the project premises; 	Mbeya City Council	50,000,000	21,551.72
		M13.2	<ul style="list-style-type: none"> Domestic solid wastes will be segregated using clearly marked bins and disposed of appropriately 	Mbeya City Council		
		M13.3	<ul style="list-style-type: none"> Waste segregation shall be exercised at the site to ensure that materials such as metals, plastics, glass, food wastes, etc. are separated for ease of reuse, recycling or disposal; 	Mbeya City Council		
		M13.4	<ul style="list-style-type: none"> Waste storage and collection points shall be designated and waste will be removed at appropriate intervals to avoid accumulation at the site 	Mbeya City Council		

		M13.5	<ul style="list-style-type: none"> • Notices which aim at sensitizing people about proper waste management shall be posted at appropriate locations around the project premises 	Mbeya Council City	2,000,000	862.07
		M13.6	<ul style="list-style-type: none"> • All the refuse collected from the proposed project site shall be disposed in Nsalaga Landfill in Mbeya city Council 	Mbeya Council City		
	Air, water and soil pollution	M14.1	<ul style="list-style-type: none"> • Collect, sort and use a proper coded bins to store waste materials before disposal to dumpsite 	Mbeya Council City	10,000,000	4,310.34
		M14.2	<ul style="list-style-type: none"> • Transport vehicles will be kept leak tight and proper personnel transportation vehicle to and from work to be kept at a high safety performance; 	Mbeya Council City		
	Noise pollution	M15.1	<ul style="list-style-type: none"> • All activities to be done indoor under buffered situation 	Mbeya Council City		
	Traffic jam during peak/rush hours	M16.1	<ul style="list-style-type: none"> • promote respect for the pedestrian's right-of-way among vehicle drivers, motorcyclists and bicyclists; 	Mbeya Council City	5,000,000	2,155.17
		M16.2	<ul style="list-style-type: none"> • ensure visibility along the roads' sections/realignment 	Mbeya Council City	3,000,000	1,293.10
		M16.3	<ul style="list-style-type: none"> • Ensure availability of appropriate and understandable signage 	Mbeya Council City		

		M16.4	<ul style="list-style-type: none"> Regular road maintenance Entrance and exit gate should be designed to prevent congestions of vehicles within the terminal 	Mbeya Council	City		
	Increased surface water run-off	M17.1	<ul style="list-style-type: none"> Storm water at the site shall be collected to the storm water drainage system 	Mbeya Council	City	5,000,000	2,155.17
		M17.2	<ul style="list-style-type: none"> The proponent shall embark on storm water harvesting and collection, storm water from paved areas shall be harvested for proposed project usage 	Mbeya Council	City		
	Improved Economy	M18.1	<ul style="list-style-type: none"> Enhancement of positive impacts: Periodic and routine maintenance of the Soweto and Sokomatola market and its facility should be properly streamlined. 	Mbeya Council	City		
	Health and Safety risks due to fire hazards	M19.1	<ul style="list-style-type: none"> The proponent shall observe safety measures e.g. use of, lighting etc 	Mbeya Council	City	6,000,000	2,586.21
		M19.2	<ul style="list-style-type: none"> Procedures to follow and precautions to be taken by workers in case of fire emergency shall be displayed in the project area 	Mbeya Council	City	1,000,000	431.03
		M19.3	<ul style="list-style-type: none"> All workers shall be educated about the fire hazards, firefighting methods and precautionary measures against fire outbreak; 	Mbeya Council	City	8,000,000	3,448.28
		M20.1	<ul style="list-style-type: none"> The proponent shall develop emergencies preparedness in case of any accident 	Mbeya Council	City	3,000,000	1,293.10

		M20.2	<ul style="list-style-type: none"> • Programmes Training shall be conducted to workers to provide education and awareness to workers 	Mbeya Council	City	8,000,000	3,448.28
		M20.3	<ul style="list-style-type: none"> • Medical check-up shall be conducted regularly to all workers 	Mbeya Council	City		
	Increased pressure on social services and utilities	M21.1	<ul style="list-style-type: none"> • Alternative measures like use of solar power, water recycling shall be explored and implemented if found feasible. For instance, use of energy savers bulbs shall be given high priority; 	Mbeya Council	City		
		M21.2	<ul style="list-style-type: none"> • The potential for rain water harvesting and using ground water for water supply shall be explored 	Mbeya Council	City		
		M21.3	<ul style="list-style-type: none"> • Use of air conditioning shall be kept to a minimum and maintenance of the cool indoor environment using natural ventilation system shall be strongly explored during the design process 	Mbeya Council	City		
	Decommission phase Noise pollution and vibration associated with demolition activities	M22.1	<ul style="list-style-type: none"> • Use of equipment designed with noise/vibration control elements shall be adopted where necessary; 	Mbeya Council	City		
		M22.2	<ul style="list-style-type: none"> • Trucks used during demolition exercise on site shall be routed away from noise sensitive areas in the neighbourhood, where feasible 	Mbeya Council	City		
		M22.3	<ul style="list-style-type: none"> • Idling time for pickup trucks and other small equipment shall be minimized to limited time 	Mbeya Council	City		

		M22.4	<ul style="list-style-type: none"> • Use of very noisy equipment shall be limited to day time only; 	Mbeya Council	City		
		M22.5	<ul style="list-style-type: none"> • All workers operating in noisy areas or operating noisy equipment will be provided with earpieces to protect against extreme noise; 	Mbeya Council	City	8,000,000	3,448.28
		M22.6	<ul style="list-style-type: none"> • The demolition exercise shall be limited at day time only 	Mbeya Council	City		
		M22.7	<ul style="list-style-type: none"> • The contractor shall further improve on the existing management of noise generation from equipment and staff to ensure that they comply with Tanzanian legislation at the time of decommissioning 	Mbeya Council	City	2,000,0000	8,620.69
	Unightly conditions due to mismanagement of generated decommission solid waste	M23.1	<ul style="list-style-type: none"> • The debris resulting from the demolition shall either be transported by a licensed waste transporter for dumping at an approved site or used as base material for new construction work; 	Mbeya Council	City		
		M23.2	<ul style="list-style-type: none"> • Restoration of the affected land - services in of any open pits and grading the land to its natural contours, then planting appropriate tree species and under cover vegetation to prevent flooding. 	Mbeya Council	City		
		M23.3	<ul style="list-style-type: none"> • All workers on the site shall be required to wear protective clothing while on duty; 	Mbeya Council	City	8,000,000	3,448.28

		M23.4	<ul style="list-style-type: none"> The demolition exercise shall be limited at day time only 	Mbeya Council	City		
		M23.5	<ul style="list-style-type: none"> All material which can be reused should reused 	Mbeya Council	City		
	Air pollution (Dust and exhaust emissions)	M24.1	<ul style="list-style-type: none"> All personnel working on the project shall be trained prior to commencing the demolition exercise on methods for minimizing negative impacts on air quality 	Mbeya Council	City	2,000,000	862.07
		M24.2	<ul style="list-style-type: none"> All active demolition areas shall be watered at least twice a day to reduce dust 	Mbeya Council	City	5,000,000	2,155.17
		M24.3	<ul style="list-style-type: none"> All trucks hauling demolition debris/wastes shall be covered; 	Mbeya Council	City		
		M24.4	<ul style="list-style-type: none"> Careful screening to contain and arrest demolition related dust shall be adopted 	Mbeya Council	City		
		M24.5	<ul style="list-style-type: none"> Exposed demolition debris of e.g. dust and sand, shall be enclosed, covered, and watered daily before transported to disposal site. 	Mbeya Council	City	2,000,000	862.07
	Loss of Employment	M25.1	<ul style="list-style-type: none"> Ensuring that all employees are members of pension fund and the employer should ensure that the fund contributions are made 	Mbeya Council	City		

	t	M25.2	• Preparing the workers for forced retirement by providing skills for self-employment, wise investment	Mbeya Council	City		
		M25.1	• Providing relevant skills to workers through on job training to make them marketable after decommission	Mbeya Council	City	15,000,000	6,465.52
	Workers accidents and hazards during demolition	M26.1	• All workers shall be sensitized before the exercise begins, on how to control accidents related to the demolition exercise	Mbeya Council	City	2,000,000	862.07
		M26.2	• A comprehensive contingency plan shall be prepared before demolition begins, on accident response	Mbeya Council	City	5,000,000	2,155.17
		M26.3	• Adherence to safety procedures shall be enforced at all stages of the exercise	Mbeya Council	City	1,000,000	431.03
		M26.4	• All workers, pursuant to labor laws, shall be accordingly insured against accidents	Mbeya Council	City		
		M26.5	• All workers shall be provided and instructed to wear protective clothing during demolition, including helmets	Mbeya Council	City		
		M26.6	• Demolition work shall be limited to daytime only avoid workers accidents due to poor visibility	Mbeya Council	City		

TOTAL COST FOR ESMP IMPLEMENTATION	775,000,000	334,051,72
---	--------------------	-------------------

8 ENVIRONMENTAL MONITORING PLAN

8.1 Introduction

Monitoring refers to the systematic collection of data through a series of repetitive measurements over a long period of time to provide information on characteristics and functioning of environmental and social variables in specific areas over time. There are four types of monitoring that are also relevant to this ESIA.

- **Baseline monitoring**—the measurement of environmental parameters during a pre-project period and operation period to determine the nature and ranges of natural variations and where possible establish the process of change.
- **Impact/effect monitoring**: involves the measurement of parameters (performance indicators) during establishment, operation and decommissioning phase in order to detect and quantify environmental and social change, which may have occurred as a result of the project. This monitoring provides experience for future projects and lessons that can be used to improve methods and techniques.
- **Compliance monitoring**: takes the form of periodic sampling and continuous measurement of levels of compliance with standards and thresholds – e.g. for waste discharge, air pollution.
- **Mitigation monitoring**: aims to determine the suitability and effectiveness of mitigation programmes, designed to diminish or compensate for adverse effects of the project.

To ensure that mitigation measures are properly done, monitoring is essential. Table 8.1 provides details of the attributes to be monitored, frequency, and institutional responsibility and estimated costs. These costs are only approximations and therefore indicative. Costs that are to be covered by the developer should be included in the project cost

Table 8-1: Environmental and Social Monitoring Plan for Improvement of Soweto and Sokomatola Markets and construction of grains market

Phase	Potential Impact	Parameter to Monitor	Monitoring Area	Monitoring Frequency	Measurement Unit	Responsibility	Estimated Costs (TShs)
Construction Phase	Air Pollution	Concentration of pollutants in ambient air (dust, noxious gas)	Project site	Continuously	NOX, SOX, PM10,	Mbeya City Council	3,500,000.00
	Land and surface water pollutions due to mismanagement of solid waste	Facilities for disposal of solid wastes	Project area	monthly	Visual	Mbeya City Council	3,000,000.00
	Noise Generation	Noise level	Project site	Continuously	dBA	Mbeya City Council	4,500,000.00
	Employment opportunities and Source of Income	Life style	Project area	Bi Annually	Nos	Mbeya City Council	2,000,000.00
	Loss of Habitat	Size and Type/Specie	Project site	Quarterly during construction	M2/Nos	Mbeya City Council	3,000,000.00
	Visual impact	Number of affected individuals	Project area	Bi Annually	N/A	Mbeya City Council	3,000,000.00
	Solid Waste Generation of (Including spoil material, Overburden and Stripped Vegetation)	Quantities generated	Project site	Weekly	M3	Mbeya City Council	1,000,000.00

Phase	Potential Impact	Parameter to Monitor	Monitoring Area	Monitoring Frequency	Measurement Unit	Responsibility	Estimated Costs (TShs)
	Influx of People into the Area	Increased number of people, Crimes incidences, Supply of Social services	Project Area	Once every six months	Nos	Mbeya City Council	3,000,000.00
	Increased Risk of Diseases (HIV) and Covid -19	Number of affected individuals & Awareness Campaigns	Project Area	Once every six months	Numbers	Mbeya City Council	6,000,000.00
	Health and Safety	Provisional of PPEs & Training	Project area	Bi Annually	Number of employees	Mbeya City Council	12,000,000
	Improved Economy	Increased economic activities	Regional area	Annually	Regional GDP	Mbeya City Council	4,000,000.00
	Health and Safety risks due to fire hazards	Adhere to safety regulations -Positioning of fire extinguishers in all strategic area -Expiry date of fire extinguishers	Project site	Annually	Number	Mbeya City Council	6,000,000
	Loss of Employment	Pension Fund remittance	Project area		Number of employees registered with fund	Mbeya City Council	2,000,000
Operation phase	Land and surface water pollutions due to mismanagement of solid waste	Facilities for disposal of solid wastes	Project area	monthly	Visual	Mbeya City Council	3,000,000.00

Phase	Potential Impact	Parameter to Monitor	Monitoring Area	Monitoring Frequency	Measurement Unit	Responsibility	Estimated Costs (TShs)
	Air pollution (Dust and exhaust emissions)	Dust pollution (PM10)	Project site	Continuously		Mbeya City Council	7,000,000
	Noise pollution	Noise and vibration levels		Continuously	Db	Mbeya City Council	6,500,000
	Improved Economy	Increased economic activities	Regional area	Quarterly	Regional GDP	Mbeya City Council	6,000,000.00
	Health and Safety risks due to fire hazards	Adhere to safety regulations - Positioning of fire extinguishers in all strategic area - Expiry date of fire extinguishers	Project site	Annually	Number	Mbeya City Council	5,000,000
	Interruption of area traffics and movements	Number of accident recorded	Project site	Continuously during project operation	Project records	Mbeya City Council	Project running cost
Decommissioning Phase	Air pollution (Dust and exhaust emissions)	Dust pollution (PM10)	Project site	Once during decommissioning		Mbeya City Council	2,000,000
	Noise Pollution & Vibration	Noise level	Project site	Once	dBA	Mbeya City Council	2,500,000

Phase	Potential Impact	Parameter to Monitor	Monitoring Area	Monitoring Frequency	Measurement Unit	Responsibility	Estimated Costs (TShs)
	Loss of Employment	Pension Fund remittance	Project area	Once during decommission	Number of employees registered with fund	Mbeya City Council	
	Workers accidents and hazards during demolition	Availability of PPEs; types of people employed with their training background; Working conditions	Project area	once	Incidences	Mbeya City Council	1,500,000
TOTAL COST FOR ESMP							648,000,000

9 COST BENEFIT ANALYSIS OF THE PROJECT

9.1 Overview of chapter

This section addresses financial analysis, economic analysis of the project and an extended cost benefit analysis for the proposed project. However, lack of information on aspect such as costs and units for various materials that will be used in the construction processes, running costs and cost labor. Therefore, what is presented in this section is rather an indicative and elementary description of the costs as well as the cost for monitoring. However The proposed Construction of Grain and Fruit Market at Old airport is estimated to cost approximately 9,450,120,220.06, Improvement of Sokomatola market 4,579,750,625.10 and for Soweto market is approximate to 9,868,391,522.67 TShs (VAT Inc.) which will be financed by the Wold Bank towards in implementing projects-financed Tanzania Cities Transforming Infrastructure and Competitiveness Project (TACTIC).

9.2 Financial Cost Benefit Analysis

A cost-benefit analysis is normally done in the framework of the feasibility study of an activity. The aim of cost-benefit analysis is to inform the project developer to make a decision on:

- Whether it makes economic sense to continue with the project
- The costs of alternative ways of delivering a service;
- Estimates of the size of a project;
- Whether the chosen option is a cost effective
- Whether a current project should be continued, changed or ceased

The financial case in this study looks into the total estimated CAPEX, estimated O&M, other costs, revenue model, revenue assumptions, revenue forecast for 15 years, and available financing options for the project.

CAPEX

- The proposed CAPEX covers the cost of land, cost of construction, cost of plant and equipment, cost of furniture and office equipment, and professional fees.
- And because the municipality owns land, its cost has not been considered in the project CAPEX.
- The detailed costs of re-settlement, site preparations, and other development costs will be captured in the detailed feasibility study

O&M

9.3 Development costs

These costs cover professional fee, contingencies, and other general costs during construction.

Revenue & cost assumptions – This study has used the following revenue and cost assumptions for the purpose of forecasting and calculating the financial and economic viability of the project

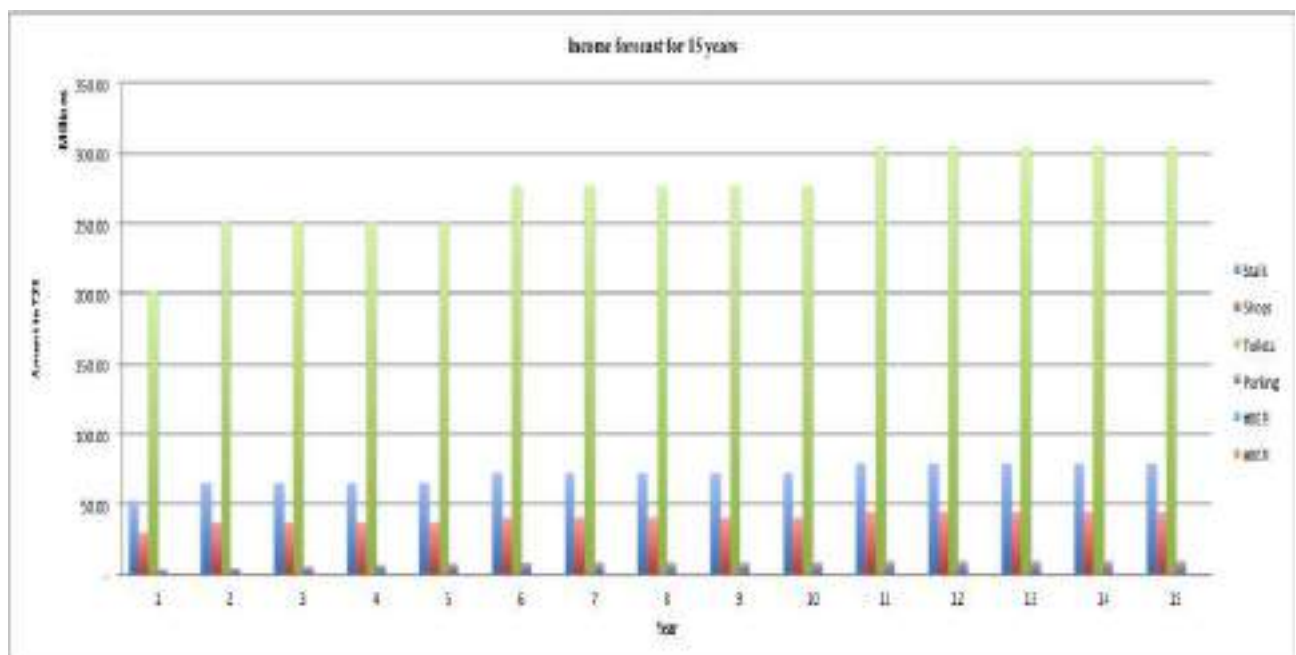
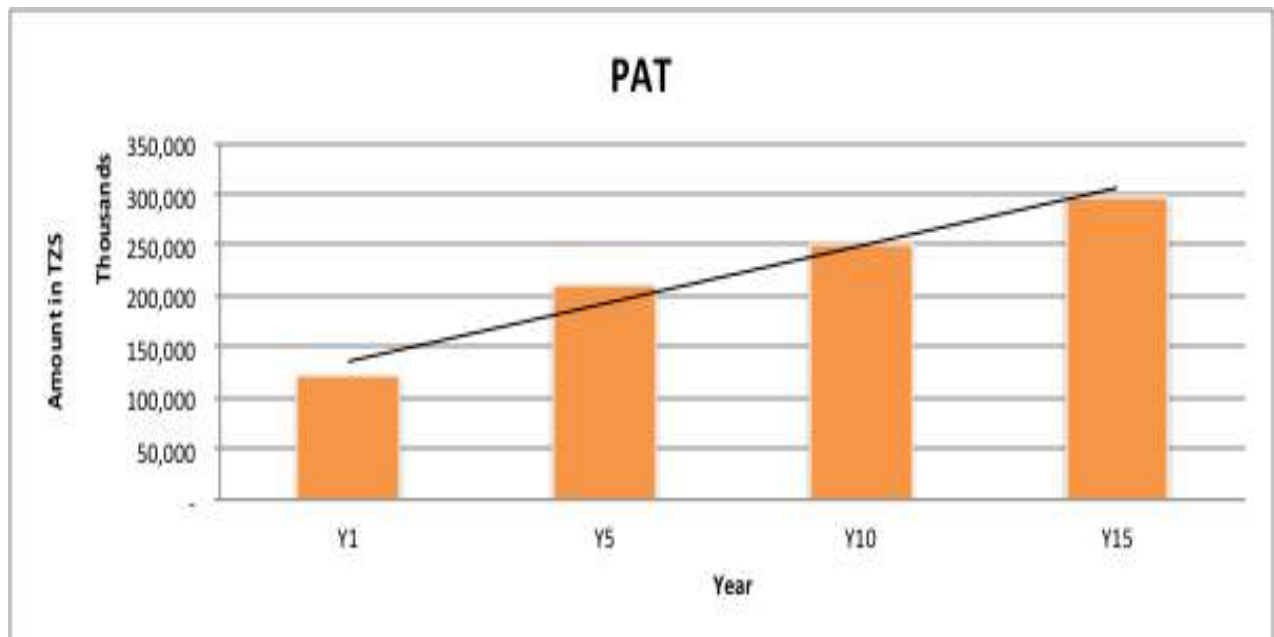
- User fees, charges, and levies have been used as what prevails now
- Revenue grows by CAGR 25% from year 3
- Cost increases by at least 5% yearly to capture any inflationary changes

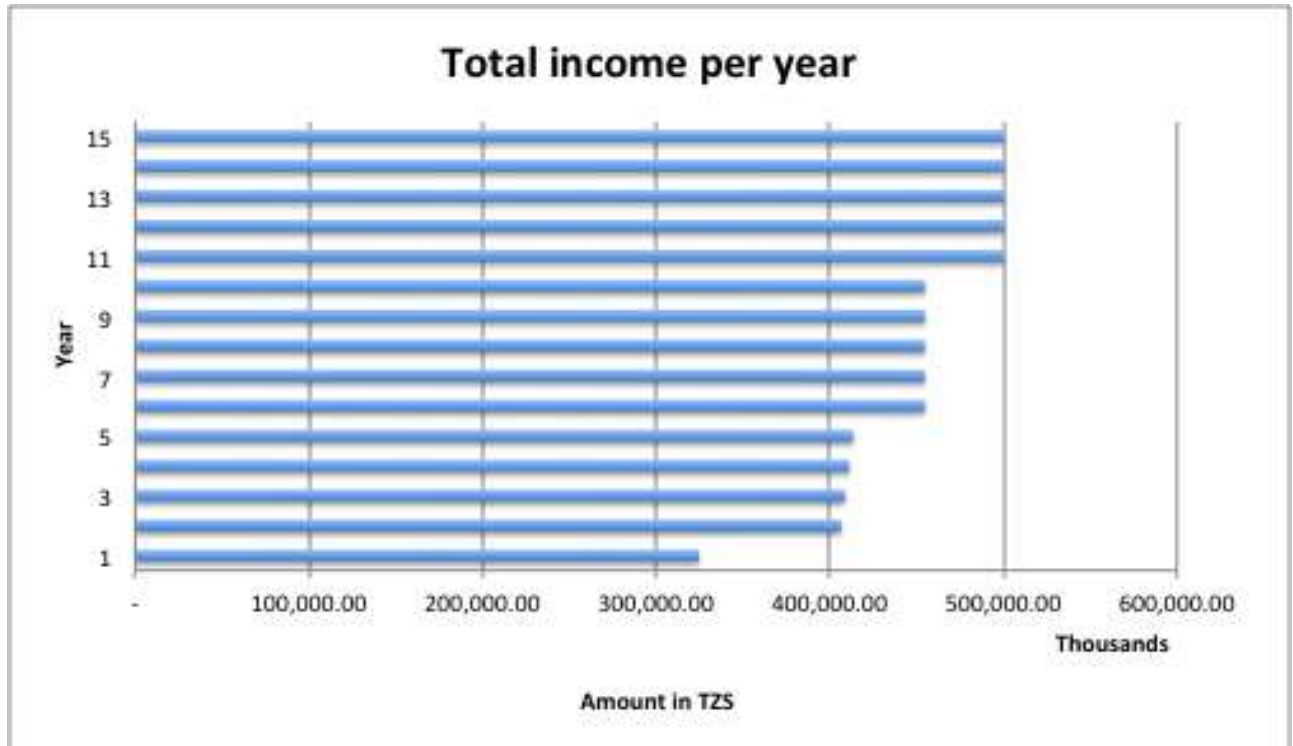
- We have forecasted for 15 years, as this is considered as small-scale PPP project (total value of less than \$70m) have up to 15-year duration, as provided by PPP regulation 72 (2) of the PPP regulations of 2015
- The capital structure for this project is 100% non-debt financing
- The discount factor used is the 15-year government bond yield

9.4 Project revenue forecast

A. GRAIN AND FRUIT MARKET

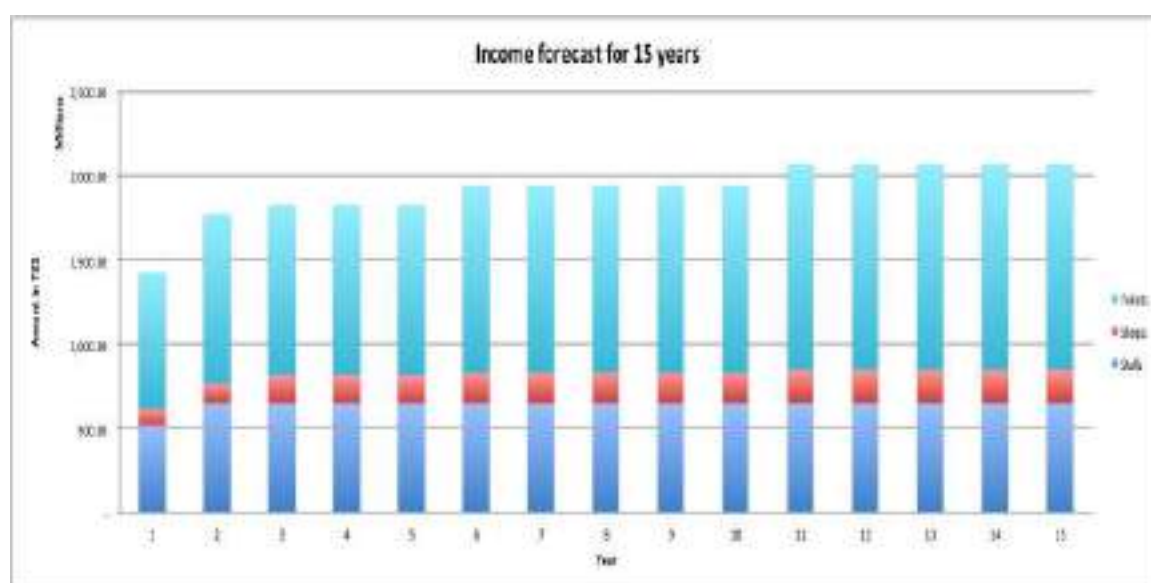
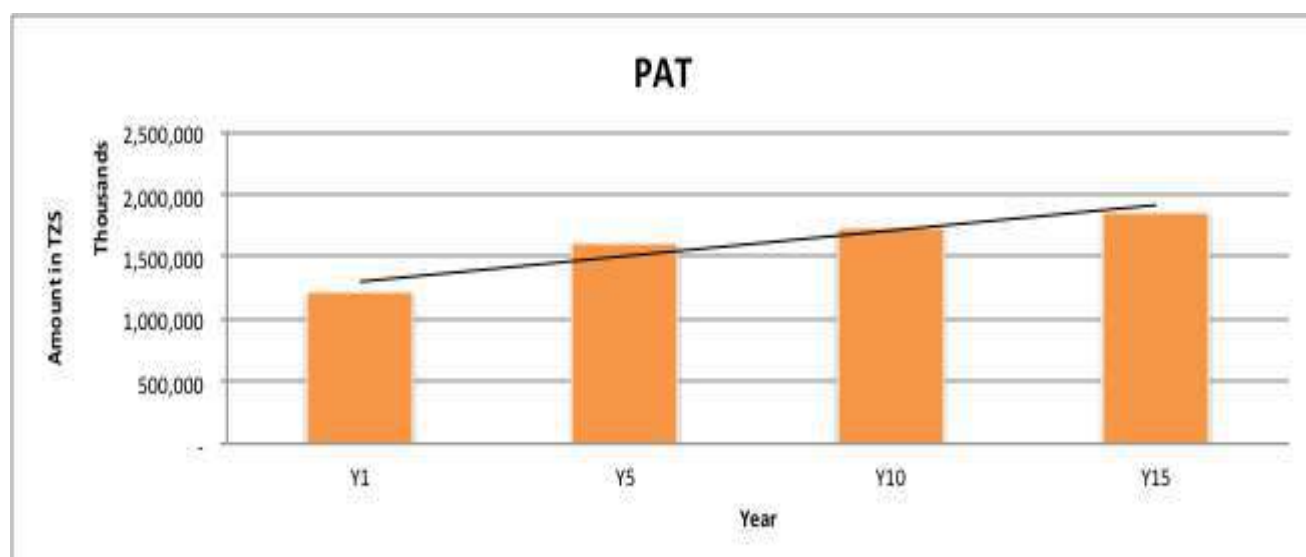
	YEAR 1	YEAR 5	YEAR 10	YEAR 15
REVENUE	324,792,000	413,400,000	454,740,000	500,214,000
GROSS PROFIT	324,792,000	413,400,000	454,740,000	500,214,000
OPEX	202,442,350	202,442,350	202,442,350	202,442,350
EBITDA	122,349,650	210,957,650	252,297,650	297,771,650
Finance cost	-	-	-	-
PBT	122,349,650	210,957,650	252,297,650	297,771,650
Taxation	-	-	-	-
PAT	122,349,650	210,957,650	252,297,650	297,771,650

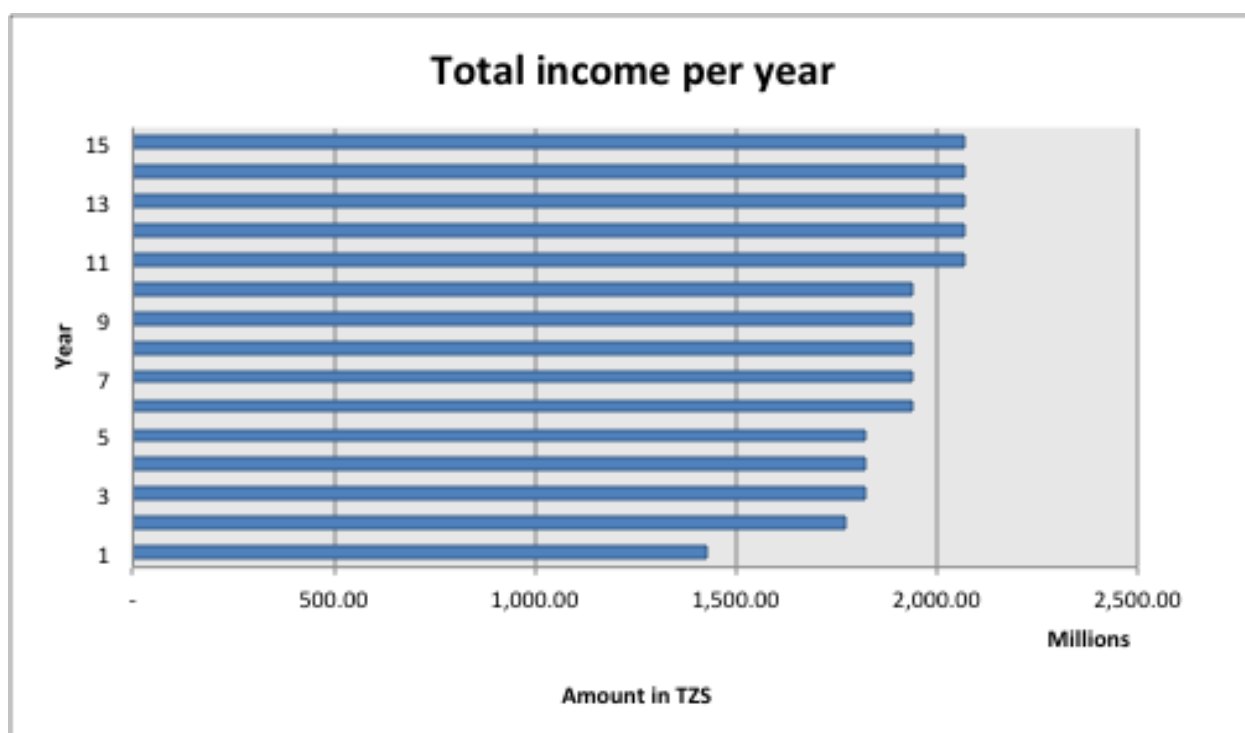




B. SOWETO MARKET

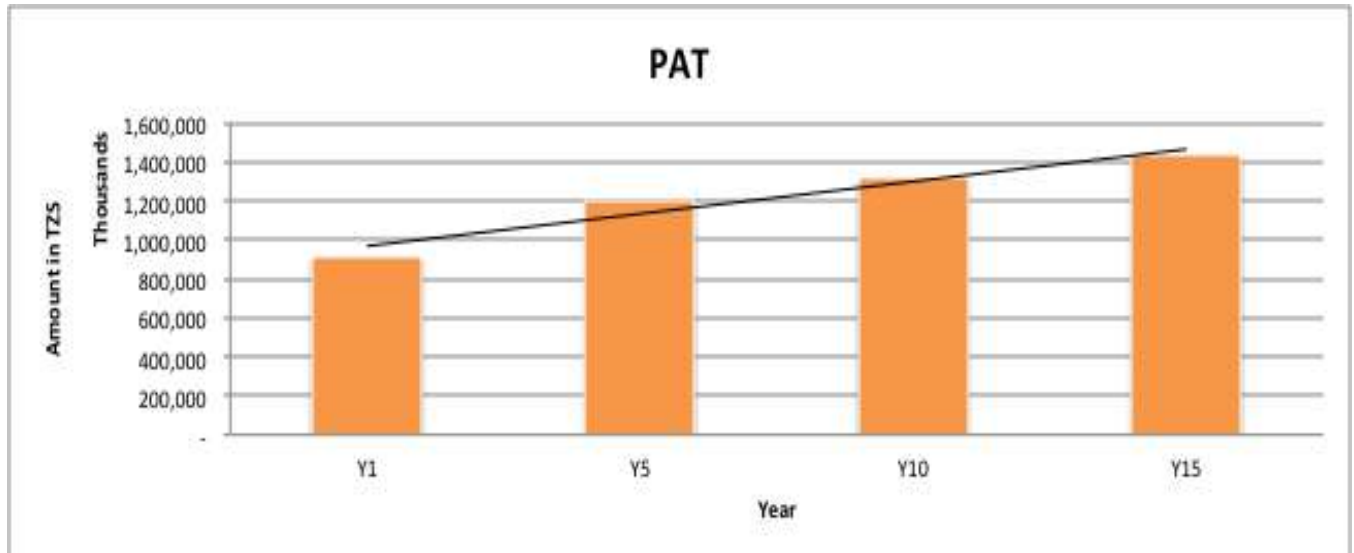
	YEAR 1	YEAR 5	YEAR 10	YEAR 15
REVENUE	1,425,960,000	1,823,400,000	1,940,580,000	2,069,478,000
GROSS PROFIT	1,425,960,000	1,823,400,000	1,940,580,000	2,069,478,000
OPEX	206,834,199	206,834,199	206,834,199	206,834,199
EBITDA	1,219,125,801	1,616,565,801	1,733,745,801	1,862,643,801
Finance cost	-	-	-	-
PBT	1,219,125,801	1,616,565,801	1,733,745,801	1,862,643,801
Taxation	-	-	-	-
PAT	1,219,125,801	1,616,565,801	1,733,745,801	1,862,643,801





C. SOKOMATOLA MARKET

	YEAR 1	YEAR 5	YEAR 10	YEAR 15
REVENUE	1,068,696,000	1,356,120,000	1,465,020,000	1,584,810,000
GROSS PROFIT	1,068,696,000	1,356,120,000	1,465,020,000	1,584,810,000
OPEX	151,303,470	151,303,470	151,303,470	151,303,470
EBITDA	917,392,530	1,204,816,530	1,313,716,530	1,433,506,530
Finance cost	-	-	-	-
PBT	917,392,530	1,204,816,530	1,313,716,530	1,433,506,530
Taxation	-	-	-	-
PAT	917,392,530	1,204,816,530	1,313,716,530	1,433,506,530



In this project, the costs will include;

- Capital expenditures;
- Operating and maintenance costs;
- Staff costs
- Maintenance costs;
- Materials;
- Opportunity costs; and
- Environmental health and other social costs.

Benefits of the establishment of the project

- Potential for additional revenues generated from project operations
- Employment opportunity, considering the fact that there will be a new project that will need employees for different kind of activities
- Better, more cost-effective service delivery;
- The avoided costs-being the costs of the existing or conventional service delivery option;
- Environmental, health and other social benefits.

9.5 Community Benefits

There will be direct and indirect benefits to the communities as follows:

- The project will employ people during construction and operation phase, with the majority being locals
- The project will provide support to community development projects
- The project will procure local goods and services
- The project development will inspire other people and institutions to invest in in the Terminal building;
- Environmental health and other social costs.

9.6 Possible Costs to Communities

Environmental impact assessment report has established that there is no anybody who will be affected by the project e.g. losing their plots, loss of property etc. Other environmental and social impacts are

presented in Chapter 6. As elaborated in chapter 7 and 8 almost all environmental and social impacts can be mitigated.

9.7 Environmental Cost Benefits Analysis

Environmental cost benefit analysis is assessed in terms of the negative and positive impacts. Furthermore, the analysis is considering whether the impacts can be mitigated and the costs of mitigating the impacts are reasonable. It should be noted that the cost benefit are discussed based on the assumption that the Project PO-RALG will implement the suggested mitigation measures. As presented in chapters 7 to 8 the identified impacts will be mitigated and the project proponent is willing to implement them.

9.8 Social Economic Cost Benefits Analysis

The project activities will contribute towards efficient utilization of natural resource and hence the National GDP. In a small way the project will contribute to poverty eradication activities. As it can be seen in the impact analysis, there are no serious irreversible negative socioeconomic impacts (e.g. no displacement of people). It can therefore be deduced that the social benefit outweighs the social costs that are anticipated

10. DECOMMISSIONING PLAN

10.1 Decommission Plan Overview

Decommissioning is the final phase in the life cycle of the facility after sitting, design, construction, commissioning and operation. Most often, it is a process involving operations such as dismantling and demolition of structures, and management of resulting materials. All these activities take into account of the environmental health and safety requirements for the operating personnel, the general public, and any implications to the environment.

The Construction of Grains and fruit market and Improvement of Soweto and Sokomatola Market is not like manufacturing facilities whereby the methods used to manufacture some products are increasingly replaced by modern technology or process. The demolition of the Grains and fruit market and Improvement of Soweto and Sokomatola Market after its useful life can be thought of in terms of life span of concrete structures that can live up to 50 years or so.

Alternatively, if at any time, the market facility becomes unusable to a state where its demolition is necessary, may be to pave a way for a new project, then a new environmental impact assessment study will be required.

10.2 Reinstatement

The decommissioning plan considered here will be recovery of reusable items, demolition of the structure, removal of concrete debris from the present site and returning the area in its original form through planting trees and other natural vegetation to match the surroundings.

The major result of demolition will be large volume of concrete debris. These large volumes will need to be handled through collection, loading and transportation to the final disposal site. Wastes must be disposed of according to the procedure drawn up during the detailed decommissioning plan to become due about two years before the actual decommissioning activity. NEMC who will approve the detailed decommissioning plan can provide further advice on the management of the resulting waste. Disposal of all wastes must be in accordance with the “Duty of care” and the conditions of the environmental performance bond.

10.3 Preliminary Decommissioning Plan

This Section provides a brief outline of the works required to demolish the Grains and fruit market and Improvement of Soweto and Sokomatola Market on the site in case it happens. This Plan will be used as a reference document that provides the framework to ensure that demolition activities on the site do not adversely affect the health, safety, traffic or the environment of the public and neighbouring properties.

The Contractor will be required to prepare a detailed demolition plan and construction management plan to the satisfaction of the developer and relevant authorities prior to the commencement of works on site.

Table 10-1: Preliminary Project Decommissioning Plan

No	Activity	Responsible Person	Time
1	Notification of Decommissioning internally and externally	Mbeya City Council	5 months before decommissioning
2	Awareness raising to workers will be conducted to inform them on	Mbeya City Council	3 months before decommissioning

	project termination		
3	Project environmental audit for disposal	Mbeya City Council	3 months before decommissioning
4	Securing decommissioning permit	NEMC/ Mbeya City Council	
5	Some building structures will be demolished. Wastes will be disposed safely.	Mbeya City Council/ contractor	

10.4 Estimated Cost for decommissioning Exercise

The estimated costs for decommissioning activities will range to Tshs 68,000,000. Facilitate demolition and reinstatement of the area to match the surroundings.

10.5 Demolition Methods

It is anticipated that the contractor will prepare a detailed demolition plan prior to the commencement of work on site; however, the indicative demolition methodology will be as follows;

- The materials will be removed from site using small to medium sized trucks.
- This engineer will be engaged to provide further engineering advice in relation temporary support or back propping of the structure during demolition.
- During the demolition process erosion control measures will be established. They will include treatment of dust and potential discharge into storm water systems

10.6 Materials Handling

Materials handling will be by mechanical plant (including excavators and bobcats) loaded into trucks (bogie tippers and semi-trailers). The debris will be carted offsite to an approved waste facility or recycling centre.

The contractor shall submit a Demolition Waste Management Plan to NEMC which outlines the objectives of;

- Maximization, reuse and recycling of demolition material
- Minimization of waste disposal;
- Evidence of implementation for specified arrangements of waste management
- On-site storage of reusable materials will occur at Site. Recycling and disposal containers will also be accommodated at this location for collection vehicles. Hazardous materials will be treated separately. A hazardous materials inspection will be undertaken by an accredited consultant and a report issued. Hazardous materials will be removed in accordance with Environmental Management (Hazardous Control and Management) Regulation 2021.

10.7 Traffic Management

The management of construction traffic during the decommissioning phase will be subject to the provision of a detailed traffic management plan. This plan will be prepared by the Contractor for the various stages of demolition. During demolition, all traffic will be held within the site boundaries. The site will remain closed to pedestrian traffic and will be generally manned by security.

10.8 Occupational Health and Safety

A detailed OH&S Policy will be provided by the Contractor prior to work commencement. A detailed Site Safety Plan will be prepared for the specific project.

11. SUMMARY AND CONCLUSION

11.1 Summary

The study indicates that, the project is valuable to the developer in terms of income generation. It will also promote economic development within nearby communities through employment creation and improve economies of the communities. The government will also earn revenue from the services offered by the proposed project.

Regarding the impacts of the project on the environment, all identified negative impacts that have been predicted appear to have miniature scale generations. Dust (air pollution), noises, Solid waste, liquid waste, and other wastes may occur but are of little consequence. These impacts are short-term in nature, considering the mitigation measures that have been anticipated. For sustainability of the project and the ecosystems in general the following recommendations should be implemented as a mitigation measure.

- Jobs and employment associated with the proposed project development as a matter of priority should be given to local communities with appropriate skills;
- Solid and liquid waste management should be strictly practiced in a systematic way to avoid systems malfunctioning and hence pollution to soils and groundwater and also sustain a hygienic environment;
- All relevant government taxes associated with operations should be paid in a transparent way

11.2 Conclusions

The conclusions drawn from the study are:

- There are no ecologically sensitive areas in the proposed construction site;
- The beneficial impacts of the proposed project prevail over any negative impacts, all of which can be eliminated or mitigated by best practice engineering and construction methods;
- The majority of impacts are short term, construction related impacts, that can be successfully eliminated or mitigated by implementing relatively low cost, simple but effective measures;

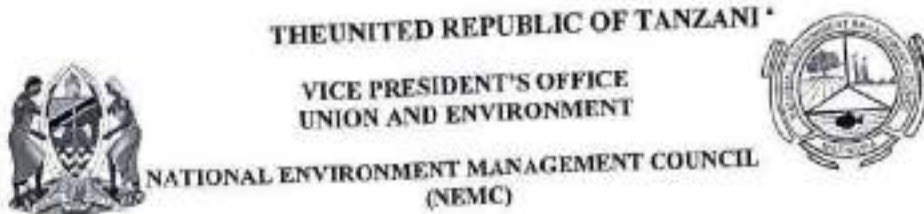
Generally, the project shall improve the wellbeing of the neighbouring people and the nation as a whole. In a long lasting the project shall contribute the national effort towards poverty alleviation, hence attaining the outlined goals in the Millennium Development Goals (MDGs) and the National Strategy for Growth and Reduction of Poverty (NSGRP, 2005). Moreover, most of the negative impacts identified in this study are of low significance and could be straightforwardly, mitigated through design and good engineering practice

REFERENCES & BIBLIOGRAPHY

- D. DELVAUX “Late Quaternary tectonic activity and lake level change in the Rukwa Rift Basin”, October 1997
- EUTIZIO VITTORI “KANDA FAULT: A MAJOR SEISMOGENIC ELEMENT WEST OF THE RUKWA RIFT (TANZANIA, EAST AFRICA)”, August 1996
- Mbeya City Council Socio economic profile, 2017.
- The Contractors Registration Act, Cap. 235
- The Employment and Labour Relations Act Cap. 366 of R.E, 2019
- The Employment and Labour Relations Act, [Cap. 366 R.E. 2019]
- The Engineers Registration Act, Cap. 63
- The Environmental Management (Hazardous Waste Control and Management) Regulation, 2021
- The Environmental Management (Prohibition of Plastic Carrier Bags) Regulations, 2019
- The Environmental Management (Registration and Practice of Environmental Experts) Regulations, 2021
- The Environmental Management (Soil Quality Standards) Regulations, 2007
- NBS “VOLUME VI: REGIONAL REPORT: RUKWA REGION”, 2003
- The Environmental Management (Solid Waste Management) Regulations, 2009 as amended in 2016
- The Environmental Management (Standards for the Control of Noise and Vibrations Pollution) Regulations, 2014
- The Environmental Management Act, Cap.191, 2004
- The Fire and Rescue Force Act, Cap. 427
- The HIV and AIDS (Prevention and Control) Act (2008)
- The income Tax Act, Cap. 332, 2004 120
- The Industrial and Consumer Chemicals (Management and Control) Regulations 2015 as amended in 2019
- The Local Government (District Authorities) Act, Cap. 287
- The National Agricultural Policy (2013)
- The National Employment Policy (1997)
- The National Environmental Policy (1997)
- The National Gender Policy (2002)
- The National Health Policy, 2003
- The National Land Policy (1995)
- The National Occupational and Health Safety Policy, 2009
- The National Policy on HIV/AIDS (2001)
- The National Solid Waste Management Strategy; United Republic of Tanzania (2018)
- The National Water Policy (2002)
- The Occupation Safety and Health Act (2003)
- The Plant Health Act, No. 4 of 2020
- The Public Health Act (2009)
- The Public Service Social Security Fund Act, Cap. 135
- The Standards Act, No. 2 of 2009
- The Tanzania Agriculture and Food Security Investment Plan 2011/12 – 2020/21
- The Tanzania Development Vision 2025
- The Water Resources Management Act, No. 11 of 2019
- The Water Supply and Sanitation Act, No. 5 of 2019
- The Workers Compensation Act, Cap. 263

APPENDICES

ANNEX 1: APPROVED TOR NEMC LETTER



In reply please quote:

Ref: EC/EIA/2022/9573

Date: 06/06/2022

Songea Municipal Council,
P.O. Box 14,
SONGEA.

RE: SCOPING REPORT AND TERMS OF REFERENCE FOR THE PROPOSED ENVIRONMENTAL IMPACT ASSESSMENT FOR UPGRADING MANZESE "A" AND MANZESE "B" TO MODERN MARKETS LOCATED ON PLOTS NO. 800 AND 801 BLOCK "Y" AT MFARANYAKI MTAA, MISUFINI WARD IN SONGEA MUNICIPALITY, RUVUMA REGION

Refer to the above heading.

2. The National Environment Management Council (NEMC) received of your application attached with Scoping Report submitted with draft Terms of Reference (ToR) for undertaking Environmental Impact Assessment (EIA) study of the aforementioned project.
3. The Terms of Reference have been reviewed and found to be satisfactory to guide the EIA study. However, you will be required to ensure that;
 - i. Land ownership document bearing the name of the proponent and compatibility of the project activities with the land use of the area must be attached in the EIA report. Furthermore, according to section 2.5 page 6, the EIS should clearly show the summary of the status of land acquisition where applicable;
 - ii. The EIS should clearly describe the management of all waste water and solid waste to be generated for each project phase;
 - iii. Description of all project components in terms of size, capacity and design should be provided in the report; with this respect, site layout plan for both markets should be attached as well;

Headquarters, 35 Regent Street, P.O. Box 63154, 11404 Dar es Salaam, Phone: +255 22 2774852; +255 22 2774889; +255 0713 608930/0735 608930 Fax: +255 22 2774901 Email Address: dg@nemoc.or.tz
Website: www.nemoc.or.tz

- iv. Baseline information for the project site with an inclusion of baseline data of air quality, noise and vibration level is provided in the EIA report.
 - v. All key stakeholders are consulted and their views and concerns addressed. Records of meetings, communication and comments should be provided. Consultation forms should bear date and each consulted stakeholder should sign against his/her name as the law requires. Submission of documents which do not observe this requirement will be sent back to the developer for corrections;
4. Furthermore, there are some issues that needs amendment during submission of the EIS as follow:-
- i. Name of the Proponent that will be responsible to implement the EMP of this project has to appear on the cover page i.e. Songea Municipal Coucil;
 - ii. Accoring to Section 34 (i) of EMA (Registration and Practice Of Environmental Experts) Regulations, 2021, the foreign firm of environmental experts wishing to practice as a firm of environmental experts in Tanzania shall apply for practicing permit. Contrary to the above, TYPESA and Urban Solution Limited are not allowed to appear in this document;
 - iii. Provide the specific title for this particular project on the cover page and to all the coming correspondences with the Council;
5. Upon Submission of the EIS, the Council will arrange for a technical review of the document by Technical Advisory Committee (TAC). Prior to this review, representatives of the Council will visit the project site to verify the adequacy of the report with respect to the proposed project site and surrounding environment. Upon submission of the EIS you will be required to as well pay to the Council a review cost though control number to be generated by the system.
6. Thank you for your good cooperation.



A. N. Sembeka

For: Director General

Cc: NORPLAN Tanzania Limited,
P.O. Box 2820,
DAR ES SALAAM-TANZANIA.

Headquarters, 35 Regent Street, P.O Box 61154, 11404 Dar es Salaam, Phone: +255 22 2774852; +255 22 2774889-
+255 0713 608930/0735 608910 Fax: +255 22 2774901 Email Address: dg@nmc.or.tz
Website: www.nmc.or.tz

ANNEX 2: DRAFT TERMS OF REFERENCE (TOR)

DRAFT TERMS OF REFERENCE FOR ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA) FOR THE PROPOSED CONSTRUCTION OF FRUIT AND GRAIN MARKET AT OLD AIRPORT AND IMPROVEMENT OF SOWETO AND SOKOMATOLA MARKETS IN MBEYA CITY COUNCIL -MBEYA REGION

(TACTIC ZONE 3)

1.0 BACKGROUND

The Government of the United Republic of Tanzania through The President's Office - Regional Administration and Local Development (PO-RALG) has received a credit from the World Bank towards in implementing projects-financed Tanzania Cities Transforming Infrastructure and Competitiveness Project (TACTIC), which will be, implemented through the President's Office - Regional Administration and Local Development (PO-RALG).

NORPLAN Tanzania Ltd was awarded the contract by PO-RALG to conduct; Feasibility Study, Urban Design, Detailed Engineering Design, Environmental and Social Due Diligence, Preparation of Cost Estimates and Bidding Documents for Urban Infrastructure Investments for Mbeya city Council

The proposed project involves construction of the new market at old airport (fruit and grains market) for the purposes of improving service to bus terminal, Daladala bus stop as well as community in Iyela and Ruanda wards. The intervention will create Job opportunity for the local communities; create Revenue generation for city and Central Government and Proper storage/handling of vegetables, fruits and fresh fish within the city.

Improvement of markets at Soweto and Sokomatola aims to build a state-of-the-art by upgrading supportive infrastructure and utilities at the markets catering 2,000 traders (80% women's) at Soweto and 800 traders at Sokomatola. The proposed constructions shall reduce the markets' congestions and provide better facilities to both traders and consumers. The proposed infrastructure development will combat critical operational issues facing the markets that include lack of proper sanitary facilities, poor solid and liquid waste management, inadequate parking space for trucks and cars, and poor supply of clean and safe water for drinking, cleaning and washing.

Proposed infrastructure for markets' development will be main centres for all fresh, dried and processed agricultural/livestock products from Mbeya region, services will include:

- Fresh products will be sold using stalls;
- Dried products will be packaged and sold in defined shops;
- Packaged processed goods may be refrigerated depending on the nature of the product;
- Selling of agricultural produce, fresh and dried i.e. maize, rice, beans/peas, wheat, sorghum millet etc.
- Selling of processed produce including: sunflower oil, dairy milk, cheese, beef etc.
- Fresh and processed fruits including: Oranges, bananas, mangoes, avocado, cocoa, coffee, peaches, and plums. etc.

Vegetables will include both fresh and dried.

2.0 APPROACH AND METHODOLOGY

The study will be conducted in line with the requirements of the EIA and Audit regulations, 2005 and its amendments of 2018. The consultant shall prepare an ESIA report that objectively and accurately reflects study observations, findings and recommendations. The ESIA report, an Environmental Impact Statement (EIS) shall be prepared, presented and submitted in line with the requirements of EIA and Audit Regulations 18-21,

The approach will be to combine the national legislative procedures to conduct an ESIA and best practice based on the SSS 10 requirements. The general approach is to identify potential positive and negative impacts to be assessed from the scoping carried out, to consult relevant stakeholders and allow for community participation in order to include their concerns and opinions in the assessment, to assess the magnitude and significance of potential positive and negative impacts and to develop an Environmental and Social Management Plan (ESMPS) to enhance positive impacts while avoiding or minimizing negative impacts during implementation. Environmental Monitoring Plan (EMP) will be developed to monitor the effectiveness of the implementation of mitigation and enhancement measures contained in the ESMP for the proposed project.

Task 1: ESIA Scoping and Registration

The Consultant shall carry out scoping exercise and prepare Scoping Report for screening and approval by the National Environment Management Council together with duly filled forms no:1 & 4. The Scoping Report should include the following:

- Background of the project and objective of the assignment;
- Project description;
- An outline of how the scoping exercise was undertaken;
- Identification of issues and problems;
- Synthesis of results of Scoping exercise (potential positive and negative impacts);
- Project boundaries in terms of spatial, temporal and institutional aspects;
- Stakeholder's consultation. This will cover all levels of stakeholders' identification, record their concerns and indicate how they were involved. This list of stakeholders consulted should be appended in the Scoping Report;
- Project alternatives;
- Cost of the implementation of the project.

In the undertaking of scoping exercise, the Consultant has to refine the Terms of Reference (TOR) in consultation with various stakeholders to cover environmental issues which may emerge from the consultation during the scoping exercise. The TOR should be appended to the Scoping Report. The Scoping Report shall be submitted for review and submission to the NEMC for further review/screening and approval.

Task 2: Environmental and Social Impact Assessment

Sub-Task (i): Description of Project Background

The Consultant shall provide a brief description or profile of the Developer, background to the project proposal and its justification, need and purpose of undertaking the study, ESIA study methodologies and approaches applied and structure of the report.

Sub-Task (ii): Description of the Proposed Project

The Consultant shall describe project components and activities to be implemented in each phases of project life i.e. pre-construction or mobilization, construction, operation and post-construction (demobilization). This part is meant to give a general idea of what the project will entail. To avoid unnecessary details, focus on the project activities based on project phases i.e. mobilization or pre-construction phase, construction phase, operation phase and demobilization phase. The description shall include the following information:

○ **Background information**

Background information shall include: Title of the proposed project and developer; Project justification and objectives; Funds and source of funding or financier(s); Project location including maps of appropriate scale; Project design, size, and capacity; Area of influence of the project works; Project life span and Project components; Land size required;

a) Project Activities

Description of project activities shall be based on phases of project life cycle i.e. mobilization or pre-construction, construction, operation and maintenance, demobilization and decommissioning phases:

○ ***Mobilization or Pre-construction activities;***

Describe activities pertaining to land acquisition; construction camp if required and site workshop; project design; land dispossession and property valuation; relocation and compensation arrangements;

○ ***Construction Activities;***

Describe all associated activities during construction work such as extraction of construction materials and water indicating its types and sources; cut and fill; land clearance; soil and gravel compaction and leveling, demolition of structures; types, sources and amount of liquid and solid waste generation and including their disposal; dust etc.

○ ***Operation and maintenance activities;***

Identify and describe all the associated activities to be conducted during project operation and maintenance such as project health and safety measures, operation and management of project facilities along the project such as public toilets, etc.

○ ***Demobilization Activities;***

Identify and elaborate on the activities to be conducted during demobilization or decommissioning of the project including movement and demolition of construction facilities, restoration of borrow pits, termination of the temporary workers' employment, waste management, etc.

b) Project Requirements

Identify all types, sources and quantities of construction materials, equipment and chemicals required by the project. Source and quantities of water, energy, manpower (Staffing and support) and other facilities and services required in each phase of project life etc.

Sub-Task (iii): Provide Baseline Condition or Description of the Physical, Biological, and Socio-Economic and Cultural Environment

In order to forecast the impacts, it will be necessary to determine the initial reference or baseline state. It is therefore, required to describe the existing environment that would be directly and/or indirectly affected by the construction of the proposed project. The 'environment' to be affected must be based on the project definition of the term that would include physical, biological socio-economic, cultural and historical factors. Only those environmental factors that are necessary to understand the impacts of the planned development should be considered. Assemble, evaluate, and present baseline data on the relevant environmental characteristics of the study area. Include information on any changes anticipated before the project commences.

(a) **Physical environment:** This shall cover geology; topography; soils; climatic conditions and meteorology; ambient air quality; surface and groundwater hydrology; existing sources of air emissions; existing water pollution discharges; receiving water quality; traffic data etc;

(b) **Biological environment:** flora, fauna, rare, threatened or endangered species, ecologically important or sensitive habitats, including available forest reserves, significant natural sites; species of commercial importance; and species with potential to become nuisances, vectors, or dangerous (of project site and potential area of influence of the project); and

(c) **Socio-economic and socio-cultural environment:** population; land use; planned development activities; community structure; employment; livelihood means, distribution of income, goods and services; recreation; public health; Gender issues and HIV/AIDS, Covid-19, cultural/historic properties; tribal peoples; and customs, aspirations, and attitudes to the project.

The Consultant shall indicate sources of data and methodologies used to acquire data. The relevant international and national standards of noise levels, water and air quality etc. must be applied when comparing between the existing and anticipated impact of project.

Sub-Task (iv): Describe the Policy, Legal and Institutional Framework

Describe the policy, legal, institutional framework as well as regulations, strategies, standards, international conventions and treaties that are of relevance to the environmental management and the proposed undertaking in particular. They should be those, which relate to but not limited to environmental quality, health and safety, protection of sensitive areas and protection of endangered species, land and land use. A description of the World Bank environmental and social safeguard policies to be triggered by the project should be provided. The objective of this section is to show compliance of the developer with the existing policies, laws administrative/institutional conditions both at national and international levels.

The following, but not limited to, are the relevant policies and legislation to be cited in relation to the proposed project undertakings.

Relevant policies and legislation to the proposed projects
--

Policies, Regulations and Guidelines	Legislation
<ul style="list-style-type: none"> • National Environmental Policy (2021); • National Water Policy (2002); • The Wildlife Policy of Tanzania (2007); • National Gender Policy (2000) • National Transport Policy (2011) • National Land Policy (1995) • National Mineral Policy (2009) • National Energy Policy (2015) • National Human Settlement Development Policy (2002) • National Policy on HIV/AIDS (2001) • Construction Industry Policy (2003) • National Agricultural Policy (2013) • National Employment Policy (2008) <p><u>Regulations, Strategies and Guidelines:</u></p> <ul style="list-style-type: none"> • Environmental Impact Assessment and Audit Regulations (2005); • Mining (Environmental management and Protection) Regulation (1999) • Environmental Assessment and Management Guidelines in the Road Sector (2011); • Land Regulation (2001); and • National Strategy for Growth and Reduction of Poverty (NSGRP - MKUKUTA -2010) • Environmental Code of Practice for Road Works (2009); • Tanzania Development Vision 2025 (2000) • Road Sector Compensation and Resettlement Guidelines (2009) • Environmental Management (Air quality standards) Regulations, 2007 • National Environment (Noise standards and Control) Regulations 2015 • Environmental Management (Water quality standards) Regulations, 2007 • Environmental Management (Hazardous waste Control) Regulations, 2021 • TANROADS HIV/AIDS at Work Place Policy (2015) 	<ul style="list-style-type: none"> • Road Act (2007); • Environmental Management Act (2004); • Energy and Water Utilities Authority (EWURA) Act (2001) • Water Resources Management Act No 11 of (2009), • Mining Act 2010; • Occupational Health and Safety Act (2003) • HIV and AIDS (prevention and Control) Act No. 28/08 (2008) • Local Government Laws (Miscellaneous Amendments), No. 13 (2006); • Village and Urban Land Acts (1999); • Land Act No. 2/04 (2004), amendment of the Land Act (1999); • Antiquities Act (1964), Rules 1999 • The Standards Act No. 2 of 2009 • Land Acquisition Act 1967, Revised in 2012 • Contractors Registration Act (1997) • Engineers Registration Act 1997 (Amendments 2007) • The Industrial and Consumer Chemical (management and Control) Act, 2003 • Employment and Labour Relations Act (2004) • The petroleum Act of 2015 • Explosives Act (1963) • Urban Planning Act (2007) • Land Use Planning Act (2007) • Worker's Compensation Act (2008)

International Obligations/Treaties:

The International Conventions/Treaties to be reviewed include:

- (i) International Convention on Trade of Endangered Species (CITES);
- (ii) Convention on Biological Diversity (1996); and
- (iii) United Nations Convention to Combat Desertification (1997);

- (iv) Basel Convention on Control on the Trans-Boundary Movement of Hazardous Waste and Disposal.

Furthermore, the Consultant shall clearly describe the linkage between the functions of the relevant institutional or administrative frameworks in Tanzania and the proposed project undertakings. The Consultant shall assess the capacity of the project implementing entities on the management of environmental and social issues under the project, the different stakeholders involved and their roles and responsibilities.

Sub-Task (v): Stakeholder Consultations and Public Involvement.

The Consultant shall identify and consult all the relevant stakeholders at national, regional and local levels. These include the Government Agencies, local NGOs, affected groups and other interested parties in order to obtain their views regarding the proposed project implementation arrangement. Indicate who they are, where they are, why they are important in this project, which issues are critical to them and how they will be involved in the ESIA study. Particular attention shall be paid to the disadvantaged groups (e.g. children, people with disabilities, the elderly and women) that may be affected by the proposed project.

The Consultant shall describe methodology applied during stakeholder consultations and public participation such as consultative meetings, household, focus groups interviews and other most appropriate methods to establish public views on the proposed project. Meetings with local authorities and the public shall be held to obtain their views on the project and its implication to the environment and social aspects.

Consultant shall propose public consultation Programme during the ESIA and the most appropriate methods to establish public views should be used. The consultation process should be open and transparent to ensure that the views of interested and affected parties are incorporated in the project design. A summary of issues and response in table form indicating sections which address them should be prepared.

There should be evidence in the Environmental Impact Statement (EIS) to the effect that there were stakeholders' consultations at all levels. Photographs, minutes of the meetings, names and signatures of consulted people could be necessary in this regard.

Among others, the consultations should ensure the involvement of the following:

1. Ministry of Lands, Housing and Human Settlement Development;
2. Local Governments in the project area;
3. National Environment Management Council (NEMC);
4. Utility Companies (e.g. TANESCO, TTCL, Water Supply Companies etc);
5. Local Communities in the project area; and
6. Regional Authorities.
7. Ministry of Water-Ruvu Basin

Sub-Task (vi): Analysis of Alternatives to the Proposed Project

The Consultant shall describe different project alternatives that were examined in the course of designing the proposed project and identify other alternatives, which would achieve the same objectives. Including the 'No action' alternative to demonstrate environmental and social conditions

without the project, consideration of alternatives should extend to siting, design, technology, construction techniques, phasing and schedule, and operating and maintenance procedures alternatives.

Compare alternatives in terms of potential environmental and social impacts; capital and operating costs; suitability under local conditions; and institutional, training, and monitoring requirements. When describing the impacts, indicate which are irreversible or unavoidable and which can be mitigated. To the extent possible, quantify the costs and benefits of each alternative, incorporating the estimated costs of any associated mitigating measures. Various environmental and social criteria should be developed to select the best project alternatives.

Sub-Task (vii): Impact Identification and Assessment

The Consultant shall identify, analyze and assess environmental and social impacts (positive and negative) of the proposed project works on natural resources, human beings and the ecosystems based on the phases of project life cycle i.e. mobilization or pre-construction phase, construction phase, operation phase and decommissioning and demobilization phase. Aspect of climate change should be considered in impact identification throughout the project cycle. Methods applied in impact identification and the criteria used in evaluating the levels of impacts significance of the proposed project works must be specified.

The impacts analysis should focus on both positive and negative impacts and be able to state whether the impacts are positive or negative; direct or indirect; short term or long term; reversible or irreversible. The Assessment should focus on the potential for negative environmental and social impacts of the proposed project on the access to business, community/common facilities, human settlements; potential impacts caused by planned and unplanned (spontaneous) in-migration of people; clearing of forest lands for agriculture; increased pressure on fuel wood, fodder and water resources; social disruptions and conflicts; and threats to woodlands and wildlife species composition and habitats.

The assessment should also examine the potential for linear resettlement that usually involves projects producing linear patterns of land acquisition. An overview shall be provided of different groups of people and their cultural, ethnic, and socio-economic characteristics, and how they are likely to benefit and/or be negatively affected by the project. Negative impacts may include but not be limited to physical relocation, loss of land or other physical assets, or loss of access to livelihood.

Sub-Task (viii): Valuation of Properties to be Affected

The Consultant should identify the properties along the proposed project which will be affected by the implementation of the project. The valuation of properties to be affected should be in line with requirements of Road Management Regulations of 2009. The types and numbers of the properties to be affected should be indicated. Furthermore, the names and address of the properties' owners should be indicated.

The ESIA study should clearly identify and analyze cumulative, residue and trans-boundary impacts. Wherever possible, describe impacts quantitatively, in terms of environmental components affected (area, number), environmental and social costs and benefits. Assign economic values when feasible. Characterize the extent and quality of available data, explaining significant information deficiencies and any uncertainties associated with the predicted impacts.

The Consultant should take into consideration existing by-laws, national and international environmental standards, legislation, treaties, and conventions that may affect the significance of identified impacts. The Consultant shall use the most up to date data and methods of analyzing and assessing environmental and social impacts. Uncertainties concerning any impact shall be indicated.

Sub-Task (ix): Propose Impact Mitigation Measures

The Consultant shall suggest cost-effective measures for minimizing or eliminating adverse impacts of the proposed project works. Measures for enhancing positive or beneficial impacts should also be recommended. The costs of implementing these measures shall wherever possible be estimated and presented.

One of the mitigation measures for the resettlement impact is compensation. The Consultant is therefore required to conduct property valuation for those properties to be affected by the project implementation to effect compensation and development of Resettlement Action Plan.

The Consultant shall review the ongoing measures on HIV/AIDS, Covid -19 awareness creation within the project area and propose for the mitigation measures. The proposal shall include a plan of action which will identify responsible key implementers, time frame and expected output.

The proposed mitigation measures shall be properly designed and specified with clear Pay Items in the EIA Documents. The cost estimate shall be included in the Tender Documents for the project and should also include cost of supervision for the implementation of mitigation measures. Also measures to address emergencies should be covered.

Sub-Task (x): Resource Evaluation or Cost Benefit Analysis.

The Consultant shall review the economic study undertaken during the Preliminary Engineering Design to ascertain the economic viability taking into account the environmental and social issues. The Economic Internal Rate of Return (IRR) and Net Present Value (NPV) of the project at recommended discount rate of 12% should be calculated and interpretation of the results be provided, including positive and negative externalities of the project.

Sub-Task (xi): Development of the Environmental and Social Management Plan (ESMP)

The Environmental and Social Management Plan focuses on three generic areas: implementation of mitigation measures, institutional strengthening and training, and monitoring. The Consultant shall prepare Environmental and Social Management Plan which will include proposed work Programme, budget estimates, schedules, staffing and training requirements and other necessary support services to implement the mitigation measures. Institutional arrangements required for implementing this management plan shall be indicated. The cost of implementing the monitoring and evaluation including staffing, training and institutional arrangements must be specified. Where monitoring and evaluation will require inter-agency and inter-Governments collaboration, this should be indicated.

Identify institutional needs to implement environmental assessment recommendations. Review the authority and capability of institutions at local, regional, and national levels and recommend how to strengthen the capacity to implement the environmental and social management and monitoring plans. The recommendations may cover such diverse topics as new laws and regulations, new

agencies or agency functions, inter-sectoral arrangements, management procedures and training, staffing, operation and maintenance training, budgeting, and financial support.

ESMP shall specify impact mitigation plan and environmental monitoring plan requirement. The costs, responsibility and timeframe for mitigating each impact and monitoring of each environmental parameter should be provided. Impact Mitigation plan and monitoring plan should be based on the project phases i.e. mobilization or Pre-construction, Construction, Operation, Demobilization and Decommissioning phase.

Sub-Task (xii): Reporting

Notwithstanding the above requirements, the contents and the structure of the Environmental and Social Impact Assessment Report should be in accordance with the Environmental and Impact Assessment and Audit Regulations, 2005, as amended in 2018

The ESIA should be concise and limited to significant environmental and social Issues. The main text should focus on actions supported by summaries of the data collected and citations for any references used in interpreting data. Detailed or un-interpreted data are not appropriate in the main text and should be presented in appendices or a separate volume. Unpublished documents used in the ESIA may not be readily available and should also be assembled in appendices.

3.0 TIME SCALE

PO- RALG Wishes to have the ESIA study completed, including decision on the issuance of EIA certificate, before August 2022. However the effective consultancy period will be negotiated with the Consultant

4.0 STAFFING

The consultancy services will be carried out by four key staff. These include;

- i. ESIA Team Leader/Environmental Expert,
- ii. Sociologist,
- iii. Valuer,
- iv. Water resources engineer/ hydrologist
- v. Public health officer,
- vi. Industrial engineer, and climate change expert.

The team shall also comprise of Support Staff on all key specialties for the study

ANNEX 3: SOCIO-ECONOMIC & ENVIRONMENTAL QUESTIONNAIRES

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA) FOR THE PROPOSED CONSTRUCTION OF FRUIT AND GRAIN MARKET AT OLD AIRPORT AND IMPROVEMENT OF SOWETO AND SOKOMATOLA MARKETS IN MBEYA CITY COUNCIL -MBEYA REGION

GROUPS-QUESTIONNAIRES (PROPOSAL)

PEOPLE WITH DISABILITIES

1. Is there any relationship between your disability and existing market use?
2. Do you have assistive devices?
3. How often do you walk/move along and cross the market?
4. How far do you normally walk/move along the market?
5. Do you get assistance from relatives/neighbours during moving along /crossing the market?
6. Do you feel safe while walking along or crossing the market?
7. Why do you think you are not safe?
8. How confident are you to walk along or cross the market?
9. What difficulties do you find to access social services?
10. What do you think can be improved or included on the market to assure your safety?

TRADERS

11. How does this market beneficial to your business?
12. How do you access your business place?
13. Do you find any accessibility difficulties?
14. Do you conduct business during night time?
15. What difficulties or threats do you face?
16. What do you think can be improved during design of the new market?
17. Do you think market construction can impact your business in one way or another? Explain
18. What measures do you think can be taken during construction to minimize impacts on your business?
19. Have you prepared to relocate to allow the construction?

GOVERNMENT MINISTRIES

20. Are you aware of existing market improvement project?
21. Do you have any facilities that should be taken care of during design and construction of the project?
22. If any of your facilities are likely to be impacted, what measures should be taken?
23. Are there any legal approvals required before taking action to i.e. cut, relocate?
24. What are the likely costs for relocation/compensation per unit?
25. What are the average costs for approval?
26. How long does it take to process approvals?

MTAA & WARD LEADERS

27. How do you explain difficulties on using existing market?

28. How safe is the existing market?
29. Do you have accidents' records on existing market?
30. How often do market accidents occur in your village?
31. What motorized equipment do they involve?
32. How do you propose the market to be in future in order for every member of community to be free and safe to use?
33. Are there any areas potential for bus bays? Explain
34. Where do you think market crossings should be established?

Annex 4: Stakeholders consultation form and minutes (Maendeleo Ward)

MIRADI WA USHINDANI KATIKA UBORSHAJI WA MIUNDOMBINU KWENYE MIJI YA TANZANIA
(TACTIC)

UPENBUZI YAKINIFU, USANIFU, TATHMINI ZA ATHARI KWA MAINGIRA NA JAVILI, UANDAJI WA GHARAMA ZA MRADI NA UANDAJI WA ZABUNI KWA AJILI YA UBORSHAJI WA MIUNDOMBINU
KATIKA HALIMASHAURI ZA MANISPAA ZA
MOROGORO, SONGEA, SUMBAWANGA NA MIBENYA (TACTIC KANDA NA: 3)

MAHUDHURIO KWA AJILI YA: KIRUTANO, USHAJI NA MAHOJIANO

HALIMASHAURI YA MANISPAA/JILI: MIBENYA CC

MAENDeleo

NORPLAN

N°	JINA	TAASISI	WADHIFA	SIMU N°	SATIHI	TAREHE
1	ISSA S. SALIMING		DIWANI	0718-300800	Shauri	30/12/2021
2	LUCIANO K. MUDAMUDJO	MCC - MAENDELEO	MTIBAZI WA KATA (WEE)	0766459247	Mudumo	30/12/2021
3	DEBORA JACKSON	"	MCC - SHANTOLA	0768178270	Mudumo	30/12/2021
4	KILATO YUSUFU	MCC - MAENDELEO	MTJUMBE	0799392494	Dhuluguzi	30/12/2021
5	BENEFACE K. SIMONE	"	M/KATI SHANTOLA	0763-686878	M/KATI	30/12/2021
6						
7						
8						
9						
10						

AFISA MTEJAJI
KATA YA MIBENYA
JILI LA MIBENYA
30/12/2021

MATHUSURU -A KICAO 30/12/2021			
	JINA KAMILI	UTEO	SAINI
1.	ISSA S. SALIMISI	DIWANI	PhawB
2.	LUCIANO C. Mwanisojo	KATIBU (WEE)	Mururu
3.	Edward Gama	NORPLAN (T) LTD	Aluma
4.	Furaha Elish	NORPLAN (T) LTD	Chad
5.	Jesina Mbaga	= " =	Rege
6.	Nehemia Mwakalabe	--- NCEC	Kafu
7.	Hamisi Mkombe	NORPLAN (T) LTD	Bondkoma
8.	KILAO YUSUFI	MJUMBE	PhawB
9.	BONIFACIA K. SIAWA	M/Kiti S/MAIOLA	Skali
10.	CECILIA C. IKUU	CDD	---

KEISA MTENDAJI
KATA YA MABEYDELEO
SISI LA MBEYA

MUHTASARI WA KIKAO CHA KUADILI MAPENDEKEZO
YA MRADI WA UJENZI WA SOKO JIPIYA LA SOKOMATIOLA
KILIKHOFANIKA OFISI YA KASA YA MABUDELEO 30/12/2021

AGENDA ZA KIKAO

1: KUFUNBWA KIKAO

2: UTAMBULISHO

3: KUADILI MAPENDEKEZO YA MRADI WA UJENZI WA
SOKO JIPIYA LA SOKOMATIOLA

4: KUFUOKA KIKAO

1: KUFUNBWA KIKAO

Kikao kimefunguliwa na mwenyekiti wa kikao (mteuani mnamo saa 2:43) aubuni kwa kuzalimua
wajumbe wa kikao.

2: UTAMBULISHO

Mwenyekiti wa kikao amesema kabla ya kikao
kuendelea leo tumetambulewa na ugeni hivyo
tuyane kuanza ndipo tuendelea na kikao chetu
Ndipo wajumbe wote walokuwepo katika kikao
wote walikutambuliwa mgumu zao, na wadhiti
kwa.

3: KUADILI MAPENDEKEZO YA MRADI WA UJENZI
WA SOKO JIPIYA LA SOKOMATIOLA

Mwenyekiti alimkaribusha mwanachama mmoja mmoja ali
aweze kukieleza kikao. Ndipo mmoja mmoja alianza
kuanza kwa kutambuliwa miradi kuanza kwa
miradi ambayo unatakuwa kutafutwa kati ya kati
letu ya Tanzania na miungoni mwa mkoa hiki
naye una katika hiyo miradi alieleza kuanza
miradi inayotegemea kutafutwa ni barabara ambao
ziteboreshwa kwa kuingo cha kiny, miferesi, Stadi,
Masoko, lakini lengo kuu ambalo ametaja
nalo leo hii ni kuhusiana na soko letu la
Sokomatiola ambalo ni miungoni mwa miradi
ambayo unatakuwa kutabashwa kati kuyana
masoko ya kucha

Hivyo tunasombe tupate mwani kweni vungoni
ili kupata picha halisi natukuchonges na nyie
tutachonges kumakundi makundi, wazee wanay, wadai,
na baidate mkutano wa wafanyakazi wa
wa soko hivyo natakaibisha, mavazi tena

Mwanekiti wa kikao mha dwani tete aluliza kwamba
huyu mradi tunatoka kutoka tete tumeshawazotupia
eneo la mudi? Ndipo magibu falikwa kama
Ihuatayo kwa kulizwa suala mha dwani kwamba
tete anaona eneo linawezwa kuwepo? Ndipo alikoma
eneo lililopo ni kuwaza ngoma. Pia alitoka
alishani kwamba ilawezekana Mkurugenzi kama
hayaataya uhamisho angavyenye kuwaza na
kwa Subabu litakwa soko la mudi alishani
litengenezwa viumbe vya mbao kuliko kutumia
gharama kubwa wakati litakwa la mudi mpya

Mumbe B. Siame tete kwenda zifurahi kuzi mta
wake kupata mradi pia alipendeleza kwamba
wafanyakazi wengi mha ndani wengine waliiziwa
na watu mawao tete utaratibu uko?

- Magibu falikwa kama ihuatayo kwamba tete
muhimbi ndio alikoma alizwa na nani akwa
mikataba upi magibu falikwa kama.

- Pia kwa kufanya hivyo tunataka wanao
wafanyakazi/waya mizuli teta

Alishani wa wao alipendeleza/alishani kwamba
eneo soko letyengwa miundombani teta baidate
iborishwa kwa kuyenga kwamba ziingie ndani teta
soko leti gari ziingie kuraishi

- Mumbe kito alishani kwamba yonzi ukoma
miundombani teta mayi teta teta Samaki ikumbukwa
pia laiyengwa kwa Subabu ni uingirito Samaki
hilo wageni walilipokea

- Mumbe Siame tete aluliza yonzi wa kili
Soko unaenda Sambamba na ^{yari} mitaji? kwa Subabu
kipindi cha mrua huu hakufai mayi falikwa
toleze sekondeni teta fanyengwa ndani teta soko
Magibu ni kwamba kama itangulizi nilitoka
muelekezo kwa mudi iliyowishwa huo nalo
litakomwa.

Ushawiri pia wa wao alishauri kutambua pindi
 ujenzi wa soko utkapoanze basi miendombinu
 -la vyoo longezwe.

A: KUFUNGA KUKO

Kikao kumafungwa na mwenyekiti mnamo
 saa 3:58 Asubuhi kwa kuwataka siku ya
 watumbe wote.

LUGARO. IC. Mwanamato

ISSA .S. SALIMINI

Mwami.

BRW

KATIBU

AFISA MTEMDAJI
 KATA YA MAE'DELEO
 JIJI LA MBEYA

MWENYEKTI

Annex 5: Iyela (stakeholders form and minutes)

MRADI WA USHINDANI KATIKA UBORSHAJI WA MIUNDOMBINU KWENYE MUJI YA TANZANIA
(TACTIC)

UPBIMBUZI YAKINIFU, USANIFU, TATHMINI ZA ATHARI KWA MAINGIRA NA JAMII, UANDAJI WA GHARAMA ZA MRADI NA UANDAJI WA ZABUNI KWA AJILI YA UBORSHAJI WA MIUNDOMBINU
KATIKA HALIMASHAURI ZA MANIPAA ZA
MOROGORO, SONGEA, SUMBAWANGA NA MBEYA (TACTIC KANDA N°: 3)

MAHUDHURIO KWA AJILI YA: MIKUTANIO, USHAURI NA MAJUSIANO

HAJIAHAURI YA MANIPAA/JU: LA MBEYA

MAJAMAA: IYELA

MSHAURI: NORPLAN

N°	JINA	TAAISI	WADHIFA	SIMU N°:	SAHIBU	TAREHE
1.	Mh. Musa Ishani	Mbeja City Council	Mh. Diwani	0754602747	[Signature]	30.12.2021
2.	Xitrey Pwani Iuba	Mbeja City Council	WEO - IYELA	07533324624	Mbeja	30.12.2021
3.	Xitrey KAKUBULA	JUJI - MBEYA	MEO - AIRPORT			30.12.2021
4.	OSWALD G. MORTWIS		M/KITI PRIMESS	0759-676232	[Signature]	30/12/2021
5.	ENOCK A. MUMBERE		M/KITI - AIRPORT	0753-746601	[Signature]	30/12/2021
6.	Simon A. Mwanambao		MUMBERE Mwanambao	0764759610	[Signature]	30/12/2021
7.	ALTY - M. Mwanambao		MUMBERE Mwanambao	0765-813016	[Signature]	30/12/2021
8.	Mariam Q. MALO		MUMBERE SHIRAZA	0758542036	[Signature]	30/12/2021
9.	Gregory Agasa		M/KITI - B/T	0758-300912	[Signature]	30/12/2021
10.	BESTON JACKOS		AFTO - BLOCK T	0756-300123	[Signature]	30/12/2021

HISA MTENDAJI WA KATIKA MBEYA E.M
KATA YA IYELA Mbeja
JULIA MBEYA
30/12/2021

MIRADI WIA USHINDANI KATIKA UBORSHAJI WIA MIUNDOMBINU KWENYE MUJI YA TANZANIA
(TACTIC)

LIPIMBUZI YAKINIFU, USANIFU, TATHMINI ZA ATHARI KWA MAINGIRA NA JAMII, UANDAJI WA GHARAMA ZA MIRADI NA UANDAJI WA ZABUNI KWA AJILI YA UBORSHAJI WIA MIUNDOMBINU
KATIKA HALAMASHAURI ZA MANISPAZA ZA
MOROGORO, SONGEA, SUNBAWANGA NA MBEYA (TACTIC KANDA N° 3)

MAHUDHURIO KWA AJILI YA: MIKUTANO, USHAJI NA MAJIDIANO

FALAMASHAURI YA MANISPAZAJI: LA MBEYA

MSHAJI: NORPLAN

ATHARIKATA: HELA

N°	JINA	TAKISI	WADHIFA	SIMU N°	SATHI	TAREHE
1	MIRADAMA KATUTA	FIELD - HELA	FIELD	0623723259	<i>11/10/2021</i>	30/12/2021
2						
3						
4						
5						
6						
7						
8						
9						
10						

FISA MIUNDOMBINU WAKATI

KATA YA HELA
MIUNDOMBINU
MERET E.M.
30/12/2021

MUNSHARI WA KIKAO
CHA DHARULA CHA HAZIMBARA NA
BARABARA CHA 30.12.2021

1. #. Ufunguzi - Mh. Duzni alifungua kikao
Saa 9.42 alasiri
- aliwashukuru wageni kwa
kufika kwao
- Kikao cho kikunziwa kili
wa ujuzi wa barabara
na stadi kwa utaduli wa
Banki ya Dunia.
2. utambulisho - Kila kiti alitambulisha
kwa majina na wachacha wake
3. Afisa Haziwa Jiji - Kwa kaniha wageni
- Wageni - Aliwashukuru Mh. Duzni kwa utafu
li zi
- NORPLA ndiyo aliyoshuka Zabuni
ya Jiji kila kila hi
- WB - Kusaidia Jiji 45
- NORPLA - Miji 4 - Mbeya, Songea
Morogoro na Shauri Moyo
- Miradi Miji ya Jiji kusimamiwa na
NORPLA.
- Tayari kuka Mungu Inapitwa
- Miradi yote ya Mbeya Jiji Miji
na yote inapita tawala na
kuka Mungu.
- Awamu hii Tanzania kuka na
kupambua nji la Mbeya

- Eneo la Mradi - Hakiwa fidia ya amri ya kite
- Maeneo yapo wazi
- Athari ya Maji - Watu wote wanaelekea
- keza Sababu ya Kuwa wazi.
- Maji kutokengeneza njia (Mifanaji bar)
- Muda wa Kuanza Mradi ujulikane Maji
- ama na kumalizika (Kushika) kwa Mradi
- Tathmini ya fidia - athari ya Mradi kwa Makenzi
- ya watu.
- Muda - Mradi Kuanza Julai 2022
- Kupitisha Mradi - April 2022
- Fidia - Hakiwa 1 Eno la Mradi liki wazi
- Maji - Tathmini atipima
- Kwa kuzima wongozu kutika picha kamili
- na chanzo, yapi ya kuzingatia
- Mtaalamu - Mtu - Maji, Majengo na
- Mzazi - ushauri
- M/Kiti - Black T. to Sigalla
- Mafuniko - Maji ni Maji kuelekea eneo la Mradi
- Maji toka Eneo Mtaa - Pambogo - Kujenga Mfano
- wa Kikumba yalekea kuelekea Mfano
- Eneo - Mfano ya Pamoja F. station au old chaker
- la baridi - Drama
- M/Kiti - Airport - E. Mwanpaga wa
- Shukrani kwa kutishimikisha kete Mradi tof
- auli na awaku iliyopita ya Mradi
- ombi lengo kutakelika na kutimilika
- kwa Mradi.

Mirit - Pambogo - O. Mwakwisi

- shukrani Kwa Mbiya na Kata - Lyala
- Mazi - Mazi yanatoka Mtas Mapambogo + Pambogo Kujenga Mfanyo Mkuu Kuelekea Mazi Mto Pzome
- walelele - Malombi ya Mazi yakehorobio kuelekebisha Mapambogo

- Samon Mwendombwa

- shukrani Kwa Mradi
- Enzi la Mradi Tayari mkuu wa la walele
- Mradi itaondoa tatizo hili

Ombi - kutukenguzwa barabara ya Mwa kukala usimama - TAPULA sio hapa

- Ally Mwakafu - Airport

- shukrani Kwa Mradi
- Ajira - vijana wa Airport Kufika Kipambogo

B. Jacks - Neo Block T

- Walele kutambua ku cheuchechu zipo
- walele - kueleka Mwendombwa ya kuwasaidia una ya Viwango, ubora wa stand
- Enzi wa Jiji - Kasambala - Kofanyo ujuzi wa na chemi chemi kile Koto Hamna

Babara ya Mafiti - Samon ni Light Duty

- Sijui kuu itafunuliwa?

M. A. Malo

- shukrani Kwa Mradi, na wananchi watafurahi

Afisa ya Afya

- Alhadi za Mradi yatakuwepo

Nia ya Kikao hiki ni Kubaini Kero za Mradi
 zitekelezakeza wakati wa itakelezaji wa Mradi
 Koo - Malibante yoyote yafikishwe Mapema
 kwa Mkunye-suzi

A - Barabara ya Mafali - Samu - Tafurukia
 kumganishwa na hadi kwa Mlemba

Mtadahu - Fida - Hakeem juu la-fida la WB
 - Jiji nye Mfidaji kwa moko
 - Alama za barabara
 - Siku 9 baki 5

Kufunga Kikao

- Mhelelifuha kikao saa 11:15 jioni
- Alirashukuru wageni kur ujo uao na
 Elimu ya Mradi.
- Shukran kwa juhudi za kufuatilia Mta
 hili
- Dambi - tume wa kwanza kutakilezena
 Mradi.

- Hakeem atheri zitekelezakeza
 wakati wa kutakilezaji wa Mradi.

Kufunga na Mawadhi ya Mlipereka
 ulimwi na Covid 19

- Kufunga + Mawadhi

- Elimu kwa wananchi juu ya usamishaji
 Maeneo yao.

MERCY E Mwakanao Mradi na wa familye azi watakuwa
 Salamu. wizi wa wote watakuwa
 kwa lolote. "ni hatari"

Annex 6: Ruanda Ward (Stakeholders form and Minutes)

MIRADI WA USHINDANI KATIKA UBORESHAJI WA MIUNDOMBINU KWENYE MUJI YA TANZANIA
(TACTIC)

UPEMBUZI YAKINIFU, USANIFU, TATHMINI ZA ATHARI KWA MAINGIRA NA JAMILI UANDAAJI WA GHURAMA ZA MIRADI NA UANDAAJI WA ZABUNI KWA AJILI YA UBORESHAJI WA MIUNDOMBINU
KATIKA HALIMASHAURI ZA MANISPAA ZA
MOROGORO, SONGEA, SUMBAWANCA NA MBEYA (TACTIC KANDA N° 3)

MAFUDHURIO KWA AJILI YA: MIKUTANO, USHAJURI NA MAHOJIANO

HALIMASHAURI YA MANISPAA/JUJI: MBEYA CC

MTAA/KATA: SONGETO - RUANDA

MSHAJURI: NORPLAN

No	JINA	TAKSISI	WADHIFA	SIMU N°	SAHIBI	TAREHE
1	REUBEN P. LIGALE	MBEYA CITY Mh: D	Mh: DIWANI	0768-862227	<i>[Signature]</i>	29.12.2021
2	PARASIA P. KISILA	MCC	MCC	0766133715	<i>[Signature]</i>	29.12.2021
3	TIBUS P. SENGU	MCC	MEO	0762309493	<i>[Signature]</i>	29.12.2021
4	CHRISTINA F. NJELEWA	MCC	MJUMBE	0756772165	<i>[Signature]</i>	29.12.2021
5						
6						
7						
8						
9						
10						

[Stamp: MBEYA CITY, SONGETO - RUANDA, 29.12.2021]

MUHIASARI WA KIKAO CHA UBORSHAJI MIUNDOMBINU (TATIC)
KILICHOFANYIKA TAREHE 29.12.2021

MAHUTHURIO

JINA KAMILI	WADHIFA	SAHIHI
1. BENEN P. KIPALWE	Mh. Dinaru	
2. FARAJA MUKILIA		
3. CHRISTINA NJELWA	REC'D	
4. TIBUS SENGU	MJUMBE	
5. FURAH ELIAH	MEQ	
6. JENNA MBAGA	MTHAMINI (NORPLAN LTD)	
7. Nehemia Mwakatole	Maelekele ya kijamii Norplan A/Mazingira (1) (11)	
8. REGILIA C IKUU	AFISA MATHIBILO	
9. Edward Gama	NORPLAN (S) LIMITED	

AGENDA

01. KUFUNGUA KIKAO
02. MRADI WA BARABARA MTAA WA MKOMBOZI
03. KUFUNGA KIKAO

01. KUFUNGUA KIKAO

Mwenyekiti alifungua kikao mnamo saa 8:49 mdrara kwa kuwakaribisha wageni kutoka Mradi wa Uboreshaji Miundombinu (TATIC).

02. MRADI WA BARABARA MTAA WA MKOMBOZI

Mwenyekiti aliwakaribisha wageni kutoka mradi wa Uboreshaji miundombinu akawataka wajitambuliste.

Wageni walijitambulisha na kueleza kuwa wamekaja kwaajili ya tathmini kwaajili ya Uboreshaji miundombizi barabara ya mkombozi wajumbe wakaomba katika barabara yetu wawekeawe matuta mawili, taa za barabarani na mifereji. Lakini pia wakaomba kurekebishiwa pia barabara ya Shukrani centre road. Wageni wakaeleza kuwa wao ndiyo wanaanza tathmini hiyo mradi utaanza mwaka 202. Wajumbe walishukuru kwa kudhagua mtaa wata kuingia

03 KUFUNGA KIKAO

Mwengyekiti alifunga kikao mnamo saa 9:12 mchana na kuwashukuru wajumbe kwa mahudhario na mawazo chanya.

MWENYEKITI

/Njeleka

CHRISTINA NJELEKA

WASA MTENDAJI MTA A-MKOMBOZI
KATA YA RUANDA
JIL LA MBEYA

KATIBU

Tibus Senga

TIBUS SENG

Annex 7: COUNCIL MANAGEMENT TEAM- CMT STAKEHOLDERS FORM











TANZANIA CITIES TRANSFORMING INFRASTRUCTURE AND
COMPETITIVENESS PROJECT (TACTIC)
(TACTIC)FEASIBILITY STUDY, URBAN DESIGN, DETAILED ENGINEERING DESIGN, ENVIRONMENTAL AND SOCIAL DUE DILIGENCE, PREPARATION OF COST ESTIMATES AND BIDDING DOCUMENTS FOR URBAN
INFRASTRUCTURE INVESTMENTS FOR
MOROGORO, SONGEA, SUMBAWANGA AND MBEYA COUNCILS (TACTIC ZONE 3).

ATTENDANCE REGISTER FOR: MEETINGS, FOCUS GROUP DISCUSSIONS, INTERVIEWS

PROJECT: MBEYA CC

MEETING: STAKE HOLDERS MEETING

CONSULTANT: NORPLAN

S/N	NAME	INSTITUTION	POSITION	PHONE NO	SIGNATURE	DATE
1	Eng Osman KASAKUWA	MBEYA CC	City Engineer	0755223799		28/12/2021
2	Edward Guma	NORPLAN LTD	Environmentalist	0719600508		28/12/2021
3	GREGORY T. Emmanuel	MBEYA CC (H/O)	HEAD OF ELECTION UNIT	0754542944		28/12/2021
4	DR. LAURENCE KUBONI	MBEYA CC	CEO	0765635334		28/12/2021
5	ANAMARY JOSEPH	MBEYA CC	CEO	0754837565		28/12/2021
6	GILBERT C. KOMBIA	MBEYA CC	Ag. CAO	0764099660		28/12/2021
7	GRACE CHITANDA	LRWJB	NO	0717-364663		28/12/2021
8	ALLY D. ABDELWAH	MBEYA CC	Ag. CAO	0787422764		28.12.2021
9	PASCAL OREIN	MBEYA CC	Ag. CAO	0754070032		28.12.2021
10	NASSIRO D. MICHANI	MBEYA CC	HRD	0753 950116		28.12.2021

TANZANIA CITIES TRANSFORMING INFRASTRUCTURE AND COMPETITIVENESS PROJECT (TACTIC)
(TACTIC)

28/12/2021

FEASIBILITY STUDY, URBAN DESIGN, DETAILED ENGINEERING DESIGN, ENVIRONMENTAL AND SOCIAL DUE DILIGENCE, PREPARATION OF COST ESTIMATES AND BIDDING DOCUMENTS FOR URBAN INFRASTRUCTURE INVESTMENTS FOR MOROGORO, SONGEA, SUMBAWANGA AND MBEYA COUNCILS (TACTIC ZONE 3)

ATTENDANCE REGISTER FOR: MEETINGS, FOCUS GROUP DISCUSSIONS, INTERVIEWS

PROJECT IGA: MBEYA CITY COUNCIL

MTAA/WARD: STAKEHOLDERS MEETING

CONSULTANT: NORPLAN

S/N	NAME	INSTITUTION	POSITION	PHONE NO	SIGNATURE	DATE
1	INSR. PETER MINAKALINDA	FARE	DFU	0755764307	[Signature]	28/12/2021
2	ENG. KUURA OMARY	TANESCO	AG. PRINCIPAL ENG.	0912313524	[Signature]	28/12/2021
3	ENG. MAGEZI NATHAN	TARURA MCC	ENGINEER	0764894709	[Signature]	28/12/2021
4	Eng. PAUL MIA	TARURA MBEYA	DM	0714828314	[Signature]	28/12/2021
5	STEPHEN M. MAGARA	T.T.C.L	Eng.	0738262259	[Signature]	28/12/2021
6	ENG. LEONIDAS DEOGRAIAS	MBEYA WASHA	ENGINEER	0767-674012	[Signature]	28/12/2021
7	ANGE MWAIPAPE	MCC	Procurement	0766420902	[Signature]	28/12/2021
8	ZENA I. KAPPAHO	MBEYA CC	CCDD	0754555543	[Signature]	28/12/2021
9	Imu du. MOSES	MBEYA CC	Eng. C.A	0754050248	[Signature]	28/12/2021
10	GEORGE C. IKUU	MBEYA CC	CCDD	0753073199	[Signature]	28/12/2021

TANZANIA CITIES TRANSFORMING INFRASTRUCTURE AND
COMPETITIVENESS PROJECT (TACTIC)
(TACTIC)


FEASIBILITY STUDY, URBAN DESIGN, DETAILED ENGINEERING DESIGN, ENVIRONMENTAL AND SOCIAL DUE DILIGENCE, PREPARATION OF COST ESTIMATES AND BIDDING DOCUMENTS FOR URBAN
INFRASTRUCTURE INVESTMENTS FOR
MOROGORO, SONGEA, SUMBAWANGA AND MBEYA COUNCILS (TACTIC ZONE 3)

ATTENDANCE REGISTER FOR: MEETINGS, FOCUS GROUP DISCUSSIONS, INTERVIEWS

PROJECT IGA: MBEYA CITY COUNCIL

MTAA/WARD: STAKEHOLDERS MEETING

CONSULTANT: NORPLAN

S/Ns	NAME	INSTITUTION	POSITION	PHONE NO	SIGNATURE	DATE
1	Nehemia Mwakatobe	Mcc	Ag. Ceo	0756488082		28/12/2021
2						
3						
4						
5						
6						
7						
8						
9						
10						

Annex 8: Stakeholders form and Minutes for Sokomatola market (Market-Traders)

TANZANIA CITIES TRANSFORMING INFRASTRUCTURE AND
COMPETITIVENESS PROJECT (TACTIC)
(TACTIC)

FEASIBILITY STUDY, URBAN DESIGN, DETAILED ENGINEERING DESIGN, ENVIRONMENTAL AND SOCIAL DUE DILIGENCE, PREPARATION OF COST ESTIMATES AND BIDDING DOCUMENTS FOR URBAN
INFRASTRUCTURE INVESTMENTS FOR
MOROGORO, SONGEA, SUMBAWANGA AND MBEYA COUNCILS (TACTIC ZONE 3)

ATTENDANCE REGISTER FOR: MEETINGS, FOCUS GROUP DISCUSSIONS, INTERVIEWS

CONSULTANT: NORPLAN

PROJECT IGA: MBEYA JILI

MTAWA WARD: MAENDELEO - SOKOMATOLA-SUKO

WAFANYABIASHARA

S/N	NAME	INSTITUTION	POSITION	PHONE NO	SIGNATURE	DATE
1	HAPPY J FRANK		MIFANYA BASHARA	0765949538	Frank	31/12/2021
2	FRANCIS HERMAN		MIFANYA BASHARA	0788663878	Francis	31/12/2021
3	TWIZIEL ELUNDU		MIFANYA BASHARA	0755555679	Elundu	31/12/2021
4	BHIGIA MARI		MIFANYA BASHARA	075986310	Bm	31/12/2021
5	IRENE ABETE		MIFANYA BASHARA	075503581	Abete	31/12/2021
6	AKHA WILYADI		MIFANYA BASHARA	0765575653	Wilyadi	31/12/2021
7	RUBEN N. L. MARZINU		Mifanyabiashara		R. L. Marzinu	31/12/2021
8	PASKWITA MUKENBWA		Mifanyabiashara	0757399923	P. Mkenbwa	31/12/2021
9	FRIDA MUKENBWA		Mifanyabiashara	0759674258	F. Mkenbwa	31/12/2021
10	ESTER CHAKABUKA		Mifanyabiashara	0759461052	E. Chakabuka	31/12/2021

MRADI WA USHINDANI KATIKA UBOSHHAJI WA MIUNDOMBINU KWENYE MUJI YA TANZANIA
(TACTIC)

UPENDELEZI YAKINIFU, USANIFU, TATI-MINI ZA ATHARI KWA MAINGIRA NA JAMII, UANDAAJI WA GHARAMIA ZA MRADI NA UANDAAJI WA ZABUNI KWA AJILI YA UBOSHHAJI WA MIUNDOMBINU
KATIKA HALIMASHAURI ZA MANISPAA ZA
MOROGORO, SONGEA, SUMBAWANGA NA MBEYA (TACTIC KANDA No. 3)

MAHUDHURIO KWA AJILI YA MIKUTANO, USHAURI NA MAHOJIANO

HALIMASHAURI YA MANISPAA/JUJI: MBEYA JIJU

ATAWATA: MAENDELEO - SOKOMATUA - SOLO

MISHAURI: NORPLAN

WAKAUNYABUASHIRARA

No	JINA	TAARIFA	WADHIFA	SIMU No.	SATHI	TAREHE
1	<u>PRBALA A. MARIANA</u>	<u>31/12/2021</u>		<u>0755156081</u>	<u>SA</u>	<u>31/12/2021</u>
2	<u>ELIZABETH A. SONYA</u>	<u>31-12-2021</u>		<u>0754331462</u>	<u>SA</u>	<u>31-12-2021</u>
3	<u>TUMSONDEGE KIMANIA</u>	<u>31-12-2021</u>		<u>0759330540</u>	<u>T. V. K. K. K.</u>	<u>31-12-2021</u>
4	<u>ERICK E. SIGARA</u>	<u>31-12-2021</u>		<u>0752493699</u>	<u>SA</u>	<u>31/12/2021</u>
5	<u>SAYUNI MATHAWA</u>	<u>31-12-2021</u>		<u>0744959959</u>	<u>SA</u>	<u>31/12/2021</u>
6	<u>ATUPELE MUAMBULEKE</u>	<u>31-12-2021</u>		<u>0753537057</u>	<u>ATUPELE</u>	<u>31/11/2021</u>
7	<u>IRENE MOTO</u>	<u>31-12-2021</u>		<u>0753094068</u>	<u>Irene moto</u>	<u>31/12/2021</u>
8	<u>Eva SHUUA</u>	<u>31-12-2021</u>		<u>076944413</u>	<u>ISHIRI</u>	<u>31/12/2021</u>
9	<u>SISTER SOLO</u>			<u>0759966782</u>	<u>HWENYEKITI WA SHIRI</u> <u>S.L.P. 12P</u> <u>S. SOLO MBEYA (12/2021)</u>	
10	<u>NOTA</u>					

MRADI WA USHINDANI KATIKA UBORSHAJI WA MILINDOMBINI KUYENYE MUJI YA TANZANIA
 (TACTIC)

UPENBUZI YAKINIFU, USANIFU, TATHMINI ZA ATHARI KWA MAINGIRI NA JAMII, UANDAJI WA GHARAMA ZA MIRADI NA UANDAJI WA ZABUNI KWA AJILI YA UBORSHAJI WA MILINDOMBINI
 KATIKA HADHSHAURI ZA MANISIPAA ZA
 MOROGORO, SONGEA, SUMBAWANGA NA MBEYA (TACTIC KANDA N°: 3)

MAHUDHURIO KWA AJILI YA: MIKUTANO, USHABURI NA MAJIDIANO

1. MAJIDIANO YA MANISIPAA/JILI: **MBEYA III**

MSHABURI: **NORPLAN**

MTAALUMA: **MBENDELEO - SOKO MATOLA - SOKO**

WAFANYABIASHARA

N°	JINA	TAMSI	WADHIFA	SIMU N°	SAHIHI	TAREHE
1	GRACE LINDATON	MCC	maumbe	0752219369	Qauwe	31/12/2021
2	MAGNOLIE DAUDI	MCC	Mfanyabiashara	07550075	Nasael'	11
3	RICHARD JACKSON	MCC	Mfanyabiashara	0698134264	Runde	11
4	CHARLES MARESA	MCC	Mfanyabiashara	075241357	Sf	11
5	BARBARA KHARIDY	MCC	Mfanyabiashara	076909564	Skun	11-11
6	JOHN MURWIEL	MCC	Mfanyabiashara	0685311209		11-11
7	MORGES SAKIGI	MCC	Mfanyabiashara	0755-923171		11-11
8	FELIX MURWIEL	MCC		0754796667		31/12/2021
9	KIRICKA MURWIEL	MCC	nyumbwe	0754796667		11-11
10	BWIGABE MURWIEL	MCC	Deo	0764531384		11-11

MRADI WA USHINDANI KATIKA UBOKESHAJI WA MIUNDOMBINU KWENYE MUJI YA TANZANIA
(TACTIC)

31/12/2021

UPENDELEO YAKINIFU, USANIFU, TATHMINI ZA ATHARI KIWA MAINGIRA NA JAMILI UANDAAJI WA GHARAMA ZA MRADI NA UANDAAJI WA ZABUNI KWA AJILI YA UBOKESHAJI WA MIUNDOMBINU
KATIKA HALIMASHAURI ZA MANISPAA ZA
MOROGORO, SONGEA, SJIMBAWANGA NA MBEYA (TACTIC KANDA N°: 3)

MAHUDHURIO KWA AJILI YA MIKUTANO, USHAURI NA MAHOJIANO

1. ALIMASHAURI YA MANISPAA/JISI: MBEYA JISI

MTAKATA MAENDELEO - SIKO LA SDICOMATOLA

MASHAURI: NORPLAN

WAFANYAJIASHARA

N°	JINA	TAASISI	WADHIFA	SIMU N°:	SAHIBI	TAREHE
1	BENITO MALIGU		Biasbora	075581244	MBEYA	31/12/2021
2	EDSON NZIKU		Fyomiso	0765818739	MBEYA	31/12/2021
3	ADAM		Biasbora	0765818739	MBEYA	31/12/2021
4	POWETH VALERO		Biasbora	0746928827	MBEYA	31/12/2021
5	LEWATI MUYANI			0762182936		
6	Jozana Amelice		B. bora	-	MBEYA	31/12/2021
7	Moek a mubunguho		Biasbora	0763599782	MBEYA	31/12/2021
8	JOELIA - MATHENA	MC	muykiti	07587166325	MBEYA	31/12/2021
9						
10						

MIRADI WA USHINDANI KATIKA UBRESHAJI WA MIUNDOMBINU KWENYE MIJI YA TANZANIA
(TACTIC)

UPEMBUZI YAKINIFU, USANIFU, TATHMINI ZA ATHARI KWA MAINGIRA NA JAMII, UANDAaji WA GHARAMA ZA MRADI NA UANDAaji WA ZABUNI KWA AJILI YA UBRESHAJI WA MIUNDOMBINU
KATIKA HALIMASHAURI ZA MANISPAA ZA
MOROCORO, SONGEA, SUMBAWANGA NA MBEYA (TACTIC KANDA N° 3)

MAHUDHURIO KWA AJILI YA: MIKUTANO, USHAURI NA MAHOJIANO

FALIMASHAURI YA MANISPAAJI: MBEYA JIJI

MISHAURI: NORPLAN

MTAAKATA: MAENDELEO -SOKO MATOLA

WAFANYA BIASHARA

N°	JINA	TAKISI	WADHIFA	SMU N°:	SAHIHI	TARHE
1	ZERAH DONALD		Fundi Ng'uo	0753673256	Donald	31/12/2021
2	LUISALISWE MWAJONYIA		MWUNDA	0747359112	MWAJONYIA	31/12/2021
3	REHECHA ALUFAN		Fundi Ng'uo	0718363544	R. ALUFAN	31/12/2021
4	YASINTA MWAUO		MWUZA MWAUO	0766432857	Y. MWAUO	31/12/2021
5	OMARY A. MASOU			0765337888	OMARY A. MASOU	31/12/2021
6	RENN JOSHUA		BIASHARA	0752223782	RENN JOSHUA	
7	GWAKISA MWAHOSI		BIASHARA	0767621573	GWAKISA MWAHOSI	
8	PEIER KIMELINGU		BIASHARA	0765818742	PEIER KIMELINGU	31/12/2021
9	AMAM MGAHA		BIASHARA	0753339974	AMAM MGAHA	31/12/2021
10	MATESIINA		BIASHARA	0765818742	MATESIINA	31/12/2021

MRADI WA USHINDANI KATIKA UBORISHAJI WA MIUNDOMBINU KWENYE MUJI YA TANZANIA
(TACTIC)

UPEMBUZI YAKINIFU, USANIFU, TATHMINI ZA ATHARI KWA MANGIZA NA JAMII, UANDAJI WA CHARAMA ZA MRADI NA UANDAJI WA ZABUNI KWA AJILI YA UBORISHAJI WA MIUNDOMBINU
KATIKA HALIMASHAURI ZA MANISPAA ZA
MOROGORO, SONGEA, SUMBAWANGA NA MBEYA (TACTIC KANDA N°: 3)

MASHUDHURU KWA AJILI YA: MIKUTANO, USHAHURI NA MAHOJIANO

HALIMASHAURI YA MANISPAA/AJILI: MBEYA JISI

MTAA/KATA: MAENDELEO - SOKO MACHA-SIKO

WAFANYA BIASHARA

MSHAURI: NORPLAN

N°	JINA	TAKISI	WADHIFA	SIMU N°:	SAHIBI	TARIEHE
1	SARA M L A K A	BIASHARA	Business	0759 529308	SS	31/12/2021
2	MARIA ISWAGA	BIASHARA	KE	0765815203	Prigen	31/12/2021
3	HAPPY YESA-YA	BIASHARA	KE	0762853352	Hapenga	31/12/2021
4	BARAKA KILAKS	BIASHARA	ME	0764194777	Prigen	31/12/2021
5	ORGA KASISI	BIASHARA	KE	0744282150	O.L.V	31/12/2021
6	LINDA S. MURAMBE	BIASHARA	ME	0758493751	Prigen	31/12/2021
7	NYAGAI BISEKO	BIASHARA	KE	0765501912	M.B.	31/12/2021
8	Henry Ngairo	BIASHARA	ME	0755283453	Ngairo	31/12/2021
9	HILDA E-LIPS MURAMBE	BIASHARA	KE	0766399011	Prigen	31/12/2021
10	ATULEA WILYADI	BIASHARA	KE	0766399011	Prigen	31/12/2021

WENYEJI WA SOKO MACHA-SIKO
B.L.P. 109
V.P.A.

TANZANIA CITIES TRANSFORMING INFRASTRUCTURE AND COMPETITIVENESS PROJECT (TACTIC)
(TACTIC)

FEASIBILITY STUDY, URBAN DESIGN, DETAILED ENGINEERING DESIGN, ENVIRONMENTAL AND SOCIAL DUE DILIGENCE, PREPARATION OF COST ESTIMATES AND BIDDING DOCUMENTS FOR URBAN MOROGORO, SONGEA, SUMBAWANGA AND MBEYA COUNCILS (TACTIC ZONE 3)

ATTENDANCE REGISTER FOR: MEETINGS, FOCUS GROUP DISCUSSIONS, INTERVIEWS

PROJECT LGAs: MBEYA JIJILI
CONSULTANT: NORPLAN

MTAA/WARD: MAENDELEO - SONGO MATOLA - SULEU

WAFANYABASHARAA

S/N	NAME	INSTITUTION	POSITION	PHONE NO	SIGNATURE	DATE
1	AMANI A. NYINGI			076322288	Amf	31/12/2021
2	KHALFAP MIFRINE			0718100059	Amf	31/12/2021
3	KELWA KHALILU			0766629098	Amf	31/12/2021
4	KENNEDY JOSEPH			0753370513	Amf	31/12/2021
5	AMULY MIPINDA			0762517965	Amf	31/12/2021
6	ALESKE JOSEPH			0755725613	Amf	31/12/2021
7	STASANI - MBEYA			0766573217	Amf	31/12/2021
8	NABU WATSON			0743507867	Amf	31/12/2021
9	MARIAM FRANK			0742042442	Amf	31/12/2021
10	RUKIA KISLU			0768065895	Amf	31/12/2021

MRADI WA USHINDANI KATIKA UBORSHAJI WA MIUNDOMBINU KWIENYE MIJI YA TANZANIA
(TACTIC)

UPIMBUZI YAKINIFU, TATHMINI ZA ATHABI KWA MAINGIRI NA JAMII, UANDAJI WA GHARAMA ZA MRADI NA UANDAJI WA ZABUNI KWA AJILI YA UBORSHAJI WA MIUNDOMBINU
KATIKA HALIMASHAURI ZA MANISPA ZA
MOROGORO, SONGEA, SUMBAWANGA NA MBEYA (TACTIC KANDA NA 3)

MAHUDHURIO KWA AJILI YA MIKUTANO, UFWAURI NA MAJIDUANO

MITAKAURI YA MANISPA/JIJI: NBEYA JIJ

MITAKAURI YA MANISPA/JIJI: MAENDELEO-SIKO MATOLA-Soko

MSTHAURI: NORPLAN

WATANYABASHAKA

NB	JINA	TAAISI	WADHIFA	SIMU NA	SAT-HI	TAREHE
1	KISSA SAKULU			0750321156	Bakali	31/12/2021
2	YALITHA A FARUKA			078343981	Faruka	31/12/2021
3	MARIAM SAMBOSA			0759850882	M. Sambosa	31/12/2021
4	PETER MWAKITWILE			074559294	Mwakitwile	31/12/2021
5	Amari Mwakitwile			0743338646	Amari	31/12/2021
6	ZAWADI AKYOB			0683723196	Bago	31/12/2021
7	AISHA ABDALLAH			0782508159	Abdullah	31/12/2021
8	JOHARI KAMADHANI			0752397015	Kamadhani	31/12/2021
9	STUMATI SADI			0784420165	S. Sadi	31/12/2021
10	PAULINA - MALANTINGI			0761235782	Mwenyekiti wa SAKATA MBEYA	31/12/2021

MRADI WA USHINDANI KATIKA UBRESHAJI WA MIUNDOMBINU KWENYE MUJI YA TANZANIA
(TACTIC)

UPEMBUIZI YAKINIPIU, USANIFU, TATHIMINI ZA ATHARI KWA MAINGIRI NA JAMII, UANDAaji WA GHARAMA ZA MRADI NA UANDAaji WA ZABUNI KWA AJILI YA UBRESHAJI WA MIUNDOMBINU
KATIKA HALIMASHAURI ZA MANISPAA ZA
MOROCORO, SONCEA, SUMBAWANGA NA MBEYA (TACTIC KANDA N°: 3)

MAHUDHURIO KWA AJILI YA MIKUTANO, USHAURI NA MAHOJIANO

FALMASHAURI YA MANISPAA/UMUJI: MBEYA JIJ

MTAA/ATA: MAENDEGO - SOKO HATULA - BUKO

MISHAURI: NORPLAN

WAFANYABIA SHIRIKA

N°	JINA	TAASISI	WADHIFA	SIMU N°:	SAHIHI	TAREHE
1	BOAZ	Mwathibite	0756281131			
2		Edisa	0755425817 0755425817			
3	HAHDIJA	mike		0755687315		
4	TAUSI	mike		0757830966		
5	TUNU	Mike				
6	HALIMIA	Mike		075683997		
7	AGNESS	Mike		0743096516		
8	ASINAI	MAL		0753321187		
9	KESU			0764429366		
10	KUTUDDI			0753030209 0753030209		

[Signature]
MAMBA MATOLA
31/12/2021
31/12/2021

MRADI WA USHINDANI KATIKA UBRESHAJI WA MIUNDOMBINU KWENYE MUJI YA TANZANIA
(TACTIC)

UPENABUZI YAKINIFU, USANIFU, TATHMINI ZA ATHARI KWA MAMINGIRA NA JAMII, UANDAJI WA GHARAMA ZA MRADI NA UANDAJI WA ZABUNI KWA AJILI YA UBRESHAJI WA MIUNDOMBINU
KATIKA HALIMASHAURI ZA MANISPAA ZA
MOROCORO, SONCEA, SUMBAWANGA NA MBEYA (TACTIC KANDA N°: 3)

MAHUDUHURIO KWA AJILI YA MIKUTANO, USHAURI NA MAHOJIANO

E-SUMASHAURI YA MANISPAA/JIJI: MBEYAJIJI

MSHAURI: NORPLAN

MITAKATA: HAENDELO -SOKO MATUA-FUJO

WAFANYAJI BIASHARA

N°	JINA	TAASISI	WADHIFA	SIMU N°:	SAHIHI	TAREHE
1	IIESKA Banda		Biashara	0748110571	am	31
2	ULICA ADAM		"	076648495	am	
3	SOFIA MIBUKWA		VIAZI		pa	
4	ESIA ESELI			0762696671	am	
5	Juliana Miguu		biashara	0766027195	p	
6	PRISCA Tamison	07469361	biashara		pr	
7	Zaurabu jaji	07434488235	biashara	0685957130 07434635	am 07434635	
8	Sija	nyande		0685757136		
9	Fatuma			0752694202	am	
10	ASAFILGA MWATUNGO		BIASHARA	0755-0525281 MWENYETI WA SONO WATOFI	am P-109	31/12/2021

MRADI WA USHINDANI KATIKA UBORSHAJI WA MIUNDOMBINU KWENYE MUJI YA TANZANIA
(TACTIC)

UPEMBUZI YAKINIFU, USANIFU, TATHMINI ZA ATHARI KWA MAINGIRA NA JAMII, UANDAJI WA GHARAMA ZA MRADI NA UANDAJI WA ZABUNI KWA AJILI YA UBORSHAJI WA MIUNDOMBINU
KATIKA HALIMASHAURI ZA MANISPAA ZA
MOROGORO, SONGEA, SUMBAWANGA NA MIBEYA (TACTIC KANDA No: 3)

MAHUDHURIO KWA AJILI YA: MIKUTANO, USHAURI NA MAHOJIANO

HALIMASHAURI YA MANISPAA/JUJI: MIBEYA JII

MTAARATA: MAENDELEO - JOKO MATOLA

MSHAURI: NORPLAN

WAFANYI AGIASHARA

No	JINA	TAAJISI	WADHIFA	SIMU No:	SAHISI	TARIEHE
1	Kriselina mwikibaga		mgunda	0766543866	Ken	31/12/2021
2	Emi Rayonga			-	Ken	31/12/2021
3	Gih mporo			0769097144	Ken	31/12/2021
4	ABDULLAH MUSAOGA			0796558499	Amos	31/12/2021
5	GRESI JOSEPH			0798076289	MBEYA	31/12/2021
6					B.L.P. 149 MBEYA	
7						
8						
9						
10						

TANZANIA CITIES TRANSFORMING INFRASTRUCTURE AND COMPETITIVENESS PROJECT (TACTIC)
(TACTIC)

FEASIBILITY STUDY, URBAN DESIGN, DETAILED ENGINEERING DESIGN, ENVIRONMENTAL AND SOCIAL DUE DILIGENCE, PREPARATION OF COST ESTIMATES AND BIDDING DOCUMENTS FOR URBAN INFRASTRUCTURE INVESTMENTS FOR MOROGORO, SONGEO, SUMBAWANGA AND MBEYA COUNCILS (TACTIC ZONE 3)

ATTENDANCE REGISTER FOR: MEETINGS, FOCUS GROUP DISCUSSIONS, INTERVIEWS

PROJECT LEAD: HBEYA JULI

MTAA/WARD: MAENDELEO-SIKO MATOLA

CONSULTANT: NORPLAN

WAFANYAJA BISHALA

S/N	NAME	INSTITUTION	POSITION	PHONE NO	SIGNATURE	DATE
1	Guantava Markusina		Fundi nguo	0756771755	Uwaguzi	31/12/2021
2	Mwaligelia J magani		Bishara	0747289528	magani	31/12/2021
3	Luye Mwinika		Bishara	0767427720	L	31/12/2021
4	ERASTO CHENGULA		BISHALA	075219480	Chengula	31/12/2021
5	ERABELA MWINIKA		BISHALA	074251909	Chengula	31/12/2021
6	Anna Mwakipanda		Bishara	0713656573	Mwakipanda	31/12/2021
7	Tedemwa Sanga		Vita	0766626386	TS	31/12/2021
8	THANJA		BISHARA	076281814	WENYENKI WASONGWA P.149	31/12/2021
9	OMARY		Bishara	0755337266	Omari	31/12/2021
10	TITO SANGA		Bishara	0755806364	Tsingi	31/12/2021

TANZANIA CITIES TRANSFORMING INFRASTRUCTURE AND
COMPETITIVENESS PROJECT (TACTIC)
(TACTIC)

FEASIBILITY STUDY, URBAN DESIGN, DETAILED ENGINEERING DESIGN, ENVIRONMENTAL AND SOCIAL DUE DILIGENCE, PREPARATION OF COST ESTIMATES AND BIDDING DOCUMENTS FOR URBAN
MOROGORO, SONGEA, SUMBAWANGA AND MBEYA COUNCILS (TACTIC ZONE 3)

ATTENDANCE REGISTER FOR MEETINGS, FOCUS GROUP DISCUSSIONS, INTERVIEWS

PROJECT LEAD: MBEYA JIJU

MITA/WARD: MWENDELEO - SOKOMATOLA

CONSULTANT: NORPLAN

WAFANYABIASHARA

S/N	NAME	INSTITUTION	POSITION	PHONE NO	SIGNATURE	DATE
1	NURU LINGA			0755077253	H. Linga	
2	RATIFA NYIKA			095520708	NYIKA	
3	CARISTA CHODOTA			075555574	CHODOTA	
4	ROINA MAIKO			0688204873	ROINA MAIKO	
5	HAWA HAMISI			071316644	HAWA	
6	SOPHIA MUANDA			0686558563	MUANDA	
7	MAGOMA GABU					
8	WASHA MICHAKA				MWENKUTIWA SOKOMATOLA S.L.P. 149	
9	GLINALA KALIGA			0766265097	MBEYA KALIGA	
10	REHENA KOMISA			076624377	REHENA	

MRADI WA USHINDANI KATIKA UBORSHAJI WA MIUNDOMBINU KWENYE MIJI YA TANZANIA
 (TACTIC)

UPEMBUZI YAKISIFU, USANIFU, TATHMINI ZA ATHARI KWA MAINGIRA NA JAMII, UANDAJI WA GHARAMA ZA MRADI NA LIANDAJI WA ZABUNI KWA AJILI YA UBORSHAJI WA MIUNDOMBINU
 KATIKA HADHARAUZI ZA MANISIPAA ZA
 MOROGORO, SONCEA, SUMBAWANGA NA MBEYA (TACTIC KANDA No. 3)

MAHUDHURIO KWA AJILI YA: MIKUTANO, USHAURI NA MAHOJIANO

UAMBAUZI YA MANISIPAA JIJU: **HBEYA JIJI**

MTAKKATA: **MAENDELEO-SOKO MATOLA**

MCHAURI: **NORPLAN**

WAFANYABIASHARA

No	JINA	TAASII	WADHIFA	SINU No	SAHIBI	TAREHE
1	SALIM M. PILI	S/MATOLA	MJUMBE	075549787		31/12/2021
2	ELIA NSEWU	S/MATOLA	MWANABASHARA	0767786105		
3	Mwhezi-Hassan	S/MATOLA	MJUMBE	075549787		31/12/2021
4	CHAKA DANIEL	S/MATOLA	MWANABASHARA	075468617		31/12/2021
5	DESI JACKSON	S/MATOLA	MWANABASHARA	074513723	LUSI	31/12/2021
6	ELIAHIMU BILALA	S/MATOLA	MJUMBE	075454073		31/12/2021
7	Selamuni Kombwe	S/MATOLA	MWANABASHARA	076930000		31/12/2021
8	ELIZABETH JANGE	S/MATOLA	-	075606609	MBEYA S.L.P. 149 	31/12/2021
9	ESSAKA-JMPHEKA	S/MATOLA	MWANABASHARA	079956233		31/12/2021
10	AJURUKE MUKUMBA	S/MATOLA	MWANABASHARA	0756556137		31/12/2021

MIRADI WA USHINDANI KATIKA UBORESHAJI WA MIUNDOMBINU KWENYE MJI YA TANZANIA
(TACTIC)

UPENABUZI YAKINIFU, USANIFU, TATHMINI ZA ATHARI KWA MINGI NA JAMII, UANDAJI WA GHARAMA ZA MIRADI NA UANDAJI WA ZABUNI KWA AJILI YA UBORESHAJI WA MIUNDOMBINU
KATIKA HALI MASHAURI ZA MANISFAA ZA
MOROGORO, SONGEA, SUMBAWANGA NA MBeya (TACTIC KANDA N°: 3)

MATHUDHURIO KWA AJILI YA MIKUTANO, USHAURI NA MAHOJIANO

FALMAJASHAURI YA MANISFAA/MI: MBEYA III

MTAKAKATA MAENDREO -SIO NAJUA

MASHAURI: NORPLAN

WAFANYA BIASHARA

No	JINA	TASISI	WADHIFA	SIMU No:	SAHHI	TAREHE
1	BETINA BENJAMINI	VIAZI	MWENYAMAHO	0753730456	BB	31-12-2021
2	FRIIDA Mkwawa	VIAZI	MUDATHAMKE	0764889488		= 11 =
3	HAWA KANUNGA	MATUNDU	MWANAMKE	0767968566		= 11 =
4	MAGIINI MWANA			0752133832		= 11 =
5	SAMUEL JOHN		ME	076806011		= 11 =
6	KUUSA KALITA		ME	0768584688		31/12/2021
7	TUJE SABIKI		KE	—	SE	= 11 =
8	PROBO Bilas			0755167000	BW	= 11 =
9	MARTHA MICHAEL		KE	0764835902		= 11 =
10	AJELANI Sinsanya			0763874002		= 11 =

MWENYAMAHO
BILAS
MBEYA

TANZANIA CITIES TRANSFORMING INFRASTRUCTURE AND
COMPETITIVENESS PROJECT (TACTIC)
(TACTIC)

FEASIBILITY STUDY, URBAN DESIGN, DETAILED ENGINEERING DESIGN, ENVIRONMENTAL AND SOCIAL DUE DILIGENCE, PREPARATION OF COST ESTIMATES AND BIDDING DOCUMENTS FOR URBAN
INFRASTRUCTURE INVESTMENTS FOR
MOROGORO, SONGEA, SUMBAWANGA AND MBEYA COUNCILS (TACTIC ZONE 3)

ATTENDANCE REGISTER FOR: MEETINGS, FOCUS GROUP DISCUSSIONS, INTERVIEWS

PROJECT ICA: MBEYA JIII

MTAM/WARD: MAENTUSO-SOKOMATOLA - SAKO

CONSULTANT: NORPLAN

WAFANYABIASHARA

S/N	NAME	INSTITUTION	POSITION	PHONE NO	SIGNATURE	DATE
1	JUSUPH MKWEE					
2	EDINA RAPHAY	BTA	BIA SHARA	0578489524		31-12-2021
3	BENITO M.L.G					
4	JALOS M.KEMBEA					
5	SUBILAGA NAFWENGA					
6	NEWA KIANO					
7	TULUNAGWA					
8	MELEMPASA					
9	MATILIKI MANHARA					
10	ALINAHUSWESIPA				WAFANYABIASHARA MBEYA JIII 31-12-2021	31-12-2021

MIRADI WA USHINDANI KATIKA UBORESHAJI WA MIUNDOMBINU KWENYE MIJI YA TANZANIA
 (TACTIC)

28/12/2024

UPEMBUZI YAKINIFU, USANIFU, TATHMINI ZA ATHARI KWA MAINGIRA NA JAMII, UANDAJI WA GHARAMA ZA MIRADI NA UANDAJI WA ZABUNI KWA AJILI YA UBORESHAJI WA MIUNDOMBINU
 KATIKA HALMASHAURI ZA MANISPAA ZA
 MOROGORO, SONGEA, SUMBAWANGA NA MBEYA (TACTIC KANDA N°: 3)

MAHUDHURIO KWA AJILI YA: MIKUTANO, USHAURI NA MAHOJIANO

HALMASHAURI YA MANISPAA/JIDI: MBEYA CO

MTAA/KATA: MAENDELEO - SOLO MATOLA

MIFAURI: NORPLAN

WAFANYABIASHARA

N°	JINA	TAASISI	WADHIFA	SIMU N°:	SAHIBI	TAREHE
1	DAINEC MIKAKALWA		BIASHARA			
2	SINYANGULU Banya					
3	DAINEC MUMEMBE					
4	TIO P. SORUA		BIASHARA	075580666		
5	PERPETUA SPRING			0768198811		
6	Eda KASUKA	BIASHARA				
7	ELUC JAKATU	Bikuchona		0766939968		
8	Hebron Munkoge		Biashara	0768068442		
9						
10						

MAENDELEO
 KATIKA HALMASHAURI
 ZA MANISPAA
 MOROGORO, SONGEA,
 SUMBAWANGA NA
 MBEYA

MUHTASARI WA MKUTANO WA HADHARA

SOKO LA SOKOMATOLA KATA YA MAENDELEO

ULIOFANYIKA TAREHE 31/12/2021.

AGENDA

1. KUFUNGUA MKUTANO
2. UTAMBULISHO
3. KUPOKEA MACHO YA WAFANYABIASHARA
4. KUFUNGA MKUTANO

1. KUFUNGUA MKUTANO

Mwenyekiti wa Soko alifungua mkutano mnamo saa 6:14 jioni kwa kuwakambisha wageni Pamoja na wafanyabiashara wa Soko.

2. UTAMBULISHO

Mwenyekiti wa Soko alimkabisha mtendaji wa kata ili aweze kuloo ulambulisho, mtendaji altoa ulambulisho na kisha kumkabisha Mh diwani wa kata ili aweze kuendelea baada ya ulambulisho kulika kwa wenyaji na wageni Mh diwani aliuomba wafanyabiashara na wananchi walidhuhuria kuwa washivu na kuloo hoja zenye msingi na mashiko.

3. KUPOKEA MAONI YA WAFANYABIASHARA

Mh diwani alimkaribisha alieandaliwa kwa ajili ya kutoka utafanuzi, Hamisi mkoma alivaeleza wafanyabiashara na wananchi. Kwa lengo la mkutano huu ni kupata maoni mbalimbali kutoka kwa wafanyabiashara, alieleza kwamba Halmashauri ya jiji imepewa miradi mingi ikiwemo ya barabara Kabika kato tafaufu tafaufu na uboneshaji wa masoko hivyo Kabika kato hi miradi utakaotekelezwa ni uboneshaji wa soko la Sdokombla.

Pia alieleza kwa awamu ya kwanza tulifanikiwa kuonana na Viongozi wa Soko na tulibaini yafuatayo

- Barabara za Sdokoni sio nzuri
- Hali ya chao sio nzuri idadi ya mahundi ya vipo hayarendani na idadi ya wafanyabiashara waliopo pia usahi haundhishi
- Nafasi za kufanya biashara ndani hazitoshi
- Dampo la kutupia takataka

Hizo ndizo changamoto ambazo tulizipata awali hivyo tunaomba kupata mawazo kutoka kwenu ambayo yatalusaidia ili kuweza kubonisha miradi utokaotekelezwa hapa.

Mawazo yaliyotolewa na wananchi pamoja na wafanyabiashara ni haya

yafuatayo:

1) MPINDA aliuliza wakati wa ujenzi sisi
tufakua wapi?

- Kabla ya kuanza zoezi la ujenzi
Halmashauri na nyie wafanyabiashara
mtaka na kukubaliana eneo la muda
kwa ajili ya kufanya biashara.

2) Mjumbe mwingine aliuliza baada ya ukorabaji
utafuta Sura mpya za wafanyabiashara je
itakuwaje kwa sisi?

- Tunaelewa na tumeshauriana ipakane orodha
ya wafanyabiashara wote ili iweze kuwasaidia
wakati wa kurudi pamoja na takwimu halisi
ya wafanyabiashara na ndio watapelewa
kipaombele.

Mh diwani pia aliwaomba viongozi wa Soko
Kwa na orodha ya wafanyabiashara ya kwao
ambayo pia itasaidia wakati wa kurudi
baada ya ubomeshaji wa Soko.

3) TITO SANGA aliuliza wakati wa kumjia kwenye
Soko baada ya ujenzi Kodi ya vibanda huwa
inapanda sana je itakuwaje kwetu?

- Mradi huu unahusisha mashauriano zaidi
hivyo hakutakuwa na Kodi kubwa kwani
tunawezwa kwa na kujidili juu ya Swala
la Kodi za vibanda

4) PASKAZINA aliiuliza al wiliimta kubwa ya
 wamiliki wa Vibanda walio kuwepo hawapo
 naandikwa mimi niliepo baadaye anakuja
 mmiliki wa awali na anasema chakwaki
 itakuwaje?

- PENETI KAROBO alieleza kuwa yeye ni baraza
 wa Soko kwa muda mrefu hivyo wamiliki
 wa awali wapo na wanafahamika hivyo
 kabla zoezi hili tunaanza kuwaandikisha
 wamiliki wa vibanda kwanza na baadaye
 wanafuata wapangaji.

Msimamizi wa Soko pia aliongezea kuwa kusema
 taarifa zoezi hili la uandikishaji limeanza
 kutanyika ndani ya Soko kwa wafanyabiashara
 na wamiliki wa vibanda hivyo.

- 5) SHAIKU aliiuliza humu ndani ya Soko tumekaa
 kwa utaratibu na tunafahamiana je baada
 ya ujenzi tutakapanudi tutakaa hivi hivi?
- Soko litajengwa titaub hivyo tutapangua
 kwa utaratibu upya

6) SONGORO aliiuliza ujenzi utachukua muda gani
 ili tujipange?

- Tunatarajia ujenzi utaanza mwezi wa 7
 mwaka 2022 na lini utabwa staweza kusema

7) ELIA NSEMWA aliliza je inawezekana kutup
ramani ili tujenge wenyewe?

• Mradi huu unafadhiliwa na bank ya dunia
na sisi kama halmashauri tunasimamia ili
uweze kutekelezwa hivyo taratibu zote
tayari zimetanyika, lakini pia mkijenga
wenyewe hamtaweza kumaliza uote kwa
wakati mmoja.

8) KASEKA WAMBARI alieleza kuamba mapendekezo
na halmashauri ya jiji mji wa Soko matola majengo
yake yawe ya ghorofa hivyo tulipendekeza
majengo mapya yanayojengwa yawe ya ghorofa
na mimi napendekeza soko letu lujengwe la
ghorofa.

9) PETER MWALINGO alieleza mradi ni mzuri ila
napendekeza mradi uwe na jengo la kawaida
na sio ghorofa.

10) JUMUDI JULIUS alieleza mradi tunakubali
ujengwe na sisi tupo tayari kuhata
uborabvu ambao tumekubaliana

11) BETTY DAVID alishauri soko lijengwe kawaida, taa tunaomba turekewe za Solar na sio umeme ili kuepuka gharama za umeme kwa wafanyabiashara, Muda wa kufanya biashara kongezwe na pia ujenzi vunde horaka.

12) STEVE MWAKYWA alishauri wafanyabiashara wa soko hiki wengi ni wadogo hivyo soko tunaomba lijengwe kwa muda mfupi, lijengwe soko la gharama ili kuongeza idadi ya wafanyabiashara na kubanisha hali ya soko, tunaomba vyumba viwe vya kawaida vyenye gharama nafuu kwa wafanyabiashara.

Baada ya majadiliano ya muda mrefu wafanyabiashara walikubaliana mambo yafuatayo

a) Sehemu ya kufanya biashara kwa muda wakati wa zoezi la ujenzi tutafanya biashara eneo la Kiwanja ngoma lililopo ndani ya kato ya Maendeleo

B) buacha Steve mwakyusa alishauri kuingiza
Soko la ghorofa na baada ya ujenzi
kukamilika wafanyabashara wapangwe kuwa
utarrabbi na mpangilio mzuri ili kuvubwa
ongezeko la wafanyabashara wengine mfano
wauza nguo za mitumba, wenye maduka makubwa
nk.

Alishauri mpangilio wa wafanyabashara
kendane na aina ya bidhaa anayotunza
mfano wauza nyanya wawe na Sehemu yao,
wauza Samaki wawe na Sehemu yao,
wauza mitumba wawe na Sehemu yao,
wauza nguo za dutani wawe na Sehemu yao
na wafanyabashara wengine pia.

4. KUFUNGA MKUTANO

Mh diwani alifunga mkutano mnamo
Saa 1:30 usiku kwa kuwashukumu waageni
na wafanyabashara kwa michango yao ya
malwazo.

KATIIBU

Mwami

Luliano. C. Mwamazi

AFISA MTEMDAJI
KATA YA MAENDELEO
JIJI LA MBEYA

M/Kati

Issa S. SAHIMINI

Shauri

Annex 9: Stakeholders form for sokomatola market leaders

MRADI WA USHINDANI KATIKA UBORASHAJI WA MIUNDOMBINU KWENYE MUJI YA TANZANIA (TACTIC)

UPEMBUIZI YAKINIFU, USANIFU, TATHMINI ZA ATHARI KWA MAINGIRA NA JAMII, UANDAJI WA GHARAMA ZA MRADI NA UANDAJI WA ZABUNI KWA AJILI YA UBORASHAJI WA MIUNDOMBINU KATIKA HALMASHAURI ZA MANISPAA ZA MOROGORO, SONGEA, SUMBAWANGA NA MBEYA (TACTIC KANDA N° 3)

MAHUDHURIO KWA AJILI YA: MIKUTANO, USHAJURI NA MAHOJIANO

HALMASHAURI YA MANISPAA/TUJ: **NMBEYA CC**

MEFAKATA: **MAENDELEO** - **SOKOMATOLA MARKET**

ASHAURI: **NORPLAN**

ASHAURI: **WIONG'OLI WA SOKO**

ASHAURI: **SABOTAGE GROUPS**

28/12/2021

No	JINA	TAAJIDI	WADHIFA	SIMU No:	SABHI	TAREHE
1	JOELI A. MATHIA	NMBEYA CC	Mw/KIT/5/6	075371688	Joni	27/12/2021
2	ZENITHA CHATEGA	NMBEYA CC	NJUMBE	0752-507883	King	27/12/2021
3	TXU HATISI	NMBEYA CC	NJUMBE	0787920299	Himisi	27/12/2021
4	MASUDI SANGE	NMBEYA	MAKAM	065639808	Wines	27/12/2021
5	RASHIDI KOMBA	NMBEYA	NJUMBE	0753545277	Roba	27/12/2021
6	KINDA SUMAT	NMBEYA CC	NJUMBE	0753326310	Aggy	27/12/2021
7	CEWE KINGTON	NMBEYA	NJUMBE	0752219369	Cewa	27/12/2021
8	NEWA KYANDO	NMBEYA C	NJUMBE	0756478840	Mpendo	27/12/2021
9	RANA MUMAYI	NMBEYA	NJUMBE	075744226	Aggy	27/12/2021
10	RODACK AMANI	NMBEYA	NJUMBE	075336295	Roba	27/12/2021

MWENYETI WA SOKOMATOLA
B.L.P. 149
NMBEYA

Annex 10: Stakeholders Form for Special Groups in Sokomatola Market

28/12/2021

MRADI WA USHINDANI KATIKA UBRESHAJI WA MIUNDOMBINU KIVENYE MIJI YA TANZANIA
(TACTIC)

UPEMBUZI YAKINIFU, USANIFU, TATHIMINI ZA ATHARI KWA MANGIZA NA JAMII, UANDAJI WA GHARAMA ZA MRADI NA UANDAJI WA ZABUNI KWA AJILI YA UBRESHAJI WA MIUNDOMBINU
KATIKA HALIMASHAURI ZA MANISPAA ZA
MOROGORO, SONGEA, SUMBAWANGA NA MBEYA (TACTIC KANDA N°: 3)

MAHUDHURIO KWA AJILI YA: MIKUTANO, USHAURI NA MAHOJIANO

HALIMASHAURI YA MANISPAA/JUJI: MBEYA CC

MTAA/KATA: MARENDELEO - SOKOLA SOKOMATOLA

MISHAURI: NORPLAN

WAF-SPECIAL GROUPS

No	JINA	TAASISI	WADHIFA	SDMU N°	SASHI	TARIEHE
1	JUELIA A-MATHEWA	MARENDELEO CC	Mw/KATI	075271662	Joel	23/12/2021
2	ANANGISYE M.	BASHARA	Mzee	075578122	Ata	28.12.2021
3	RABISONI MASHALI	BASHARA	Baboli	075473758	GS	28.12.2021
4	Richard J.	Bashara	Mzee	07297767	Mzee	28/12/21
5	PETIT PAVEL	Bashara	Mzee	0766460	Petit	28-12-2021
6	Mhamed mscika	Bashara	Mzee	0760702076	Mhamed	28.12.2021
7	Joyce - mscikap	Bashara	Mzee	0657801343	Joyce	28-12-2021
8	Agnesi Sanga	Bashara	Mzee	0762825396	Agnesi	28.12.2021
9	ANITA MWAAMBOP	Bashara	Mzee	0655444602	Anita	11
10	PENEH VALORA	Bashara	Mzee	0746928627	Prabho	28.12.2021

BWENYEKITI WA SOKOMATOLA
B.L.P. 149
MBEYA

MRADI WA USHINDANI KATIKA UBORESHaji WA MIUNDOMBINU KWIENYE MIJI YA TANZANIA
 (TACTIC)

281

 UPENDELEUZI YAKINIFU, USANIFU, TATHMINI ZA ATHARI KWA MAINGIRA NA JAMII, UANDAaji WA CHARAMA ZA MRADI NA UANDAaji WA ZABUNI KWA AJILI YA UBORESHaji WA MIUNDOMBINU
 KATIKA HALMASHAURI ZA MANISPAA ZA
 MOROGORO, SONGEA, SUMBAWANGA NA MBEYA (TACTIC KANDA N°: 3)

(2)

MAHUDHURIO KWA AJILI YA: MIKUTANO, USHAURI NA MAHOJIANO

 HALMASHAURI YA MANISPAA/JIJI: MBEYA CC

 MSHAURI: NORPLAN

 MWAATAWA ENDELEO = SOKOMATULA MARKET - SPECIAL GROUPS

No	JINA	TAASISI	WADHIFA	SIMU N°:	SAHIBI	TAREHE
1	<u>D. Ambakisiye Mwakilishi</u>		<u>Ju D Wt</u> <u>Kushoto</u>	<u>0752294344</u>		<u>28/12/</u>
2	<u>FRANK K. Mwanjima</u>		<u>Fundi</u>	<u>0762017915</u>	<u>Jafu.</u>	<u>28/12/2021</u>
3	<u>HUFILE Mungu</u>	<u>Fundi Chengepo</u>		<u>0757303625</u>	<u>MAGUETA</u>	<u>= 11 =</u>
4	<u>CHALE Mwanambao</u>	<u>Kuza mafuta</u>				<u>= 11 =</u>
5	<u>ROIDA KANENGO</u>	<u>MPigiti</u>		<u>0747</u>	<u>KANENGO</u>	<u>= 11 =</u>
6	<u>TUNGENANI KONGA</u>	<u>MPOGA</u>				<u>= 11 =</u>
7	<u>RATHABU Mwanamaga -</u> <u>MBA</u>					<u>= 11 =</u>
8	<u>KISSA Samalile</u>					<u>= 11 =</u>
9	<u>EVENIA HUSEN</u>	<u>BIASHARA</u>		<u>0766264531</u>		<u>= 11 =</u>
10	<u>ITUNGENE</u>	<u>BIASHARA</u>		<u>0758056911</u>		<u>= 11 =</u>

 MWAATAWA ENDELEO
 MBEYA CC
 281

Annex 11: Stakeholders form for Soweto market- Leaders

MRADI WA USHINDANI KATIKA UBORSHAJI WA MIUNDOMBINU KWIENYE MUJI YA TANZANIA
(TACTIC)

UPEMBUZI YAKINIFU, USANIFU, TATHMINI ZA ATHARI KWA MAINGIRA NA JAMII, UANDAJI WA GHARAMA ZA MRADI NA UANDAJI WA ZABUNI KWA AJILI YA UBORSHAJI WA MIUNDOMBINU
KATIKA HALIMASHAURI ZA MANISPAA ZA
MOROGORO, SONGEA, SUMBAWANGA NA MBEYA (TACTIC KANDA N°: 3)

MAHUDHURIO KWA AJILI YA MIKUTANO, USHAURI NA MAJIDIANO

HALIMASHAURI YA MANISPAA/JIJI: MBEYA JIJI

MAJIDIANO: RUANDA - SOKO LA SOWETO - VIONGOZI

USHAURI: NORPLAN

N°	JINA	TAASSI	WACHIFA	SIMU N°:	SAHITI	TAREHE
1	ISHADHRY, RASHIRU	SOWETO SOKO LA	M/KIFI, VASOKO	0754 45781	<i>[Signature]</i>	27/12/2021
2	BERITA NGON-TANI	SOWETO SOKO LA	MHAZINI	0767 36323	<i>[Signature]</i>	27/12/2021
3	KALLOVA P. KALLOVAH	SOWETO SOKO LA	MJUMBE	0766 6080	<i>[Signature]</i>	27/12-2021
4	CHRISTIANI-NAZARI	SOWETO SOKO LA	MJUMBE	0713/13816	<i>[Signature]</i>	27-12-2021
5	WATISANI KAMUHE	SOWETO SOKO LA	MJUMBE	0752-54469	<i>[Signature]</i>	27/12/2021
6	SCHOLA SAMSON	SOKO LA SOWETO	MJUMBE	0757912395	<i>[Signature]</i>	27/12/2021
7	ALAHU: NO NAZARI	SOKO LA SOWETO	MJUMBE	0754 53459	<i>[Signature]</i>	27/12/2021
8	Sulame SPAMUE	SOKO LA SOWETO	MJUMBE	0658253235	<i>[Signature]</i>	27/12/2021
9	ABIRITHI MIZGA	SOKO LA SOWETO	KATI BU	075406871	<i>[Signature]</i>	27/12/2021
10						

MWENYEKITI SOKO LA
SOWETO
P.O. BOX 149
MBEYA - JIJI

Annex 12: Stakeholder form and Minutes for Soweto market- Special Group

MRADI WA USHINDANI KATIKA UBOSHAJI WA MIUNDOMBINU KWENYE MUJI YA TANZANIA
(TACTIC)
UPEMBUI YAKINIFU, USANIFU, TATHMINI ZA ATHARI KWA MAINGIRA NA JAMII, UANDAJI WA GHARAMA ZA MRADI NA UANDAJI WA ZABUNI KWA AJILI YA UBOSHAJI WA MIUNDOMBINU
KATIKA HALMASHAURI ZA MANISPAA ZA
MOROCORO, SONGEA, SUMBAWANGA NA MBEYA (TACTIC KANDA N° 3)

MAHUDHURIO KWA AJILI YA: MIKUTANO, USHAURI NA MAHOJIANO

HALMASHAURI YA MANISPAA/JIJU: MBEYA JIJU

MSHAURI: NORPLAN

MTAKRATA: RUANDA SOKO LA SOWETO

SPECIAL GROUPS

No	JINA	TAAJISI	WADHIFA	SIMU No:	SALIMI	TAREHE
1	BAMBO DZARU	SOKO SOWETO	MJUMBE	0754485954	Bambo	28-12-2021
2	ASUMIUSSE MUKAKINGA	SOKO SOWETO	Mzee	0762440245	Mzee	28-12-2021
3	AMBELE WAN DALIMU	Soko Soweto	Mzee	0762431648	Ambele	28-12-2021
4	Suma Samlebe	Soko Soweto	Mzee		Suma	28-12-2021
5	KONSOLO PIKA	Soko Soweto	Mzee	0742242011	KON	28-12-2021
6	Wagwaga Shaka Soweto	Soweto	Mzee	0755383746	Wagwaga	28-12-2021
7	DEGA DUMBA	Soweto	Mzee	0759441019	DEGA	28-12-2021
8	OLIVA MWEKE	Soweto	Mzee	076465794	OLIVA	28-12-2021
9	MARHAM PAUL	Soweto	Mzee	0766835401	Marham	28-12-2021
10	DANUA JOMI	Soweto	Mzee	0765255149	D-jani	28-12-2021

MWENYEKITI SOKO LA
SOWETO
P.O. BOX 149
MBEYA - JIJU

MIRADI WA USHINDANI KATIKA UBIORESHAJI WA MIUNDOMBINU KWENYE MJI YA TANZANIA
(TACTIC)

UPEMBUZI YAKINIFU, USANIFU, TATHMINI ZA ATHARI KWA MANGIRA NA JAMII, UANDAJI WA GHARAMA ZA MRADI NA UANDAJI WA ZABUNI KWA AJILI YA UBIORESHAJI WA MIUNDOMBINU
KATIKA HALMASHAURI ZA MANISPAA ZA
MOROGORO, SONGEA, SUMBAWANGA NA MBEYA (TACTIC KANDA No: 3)

MAHUDHURIO KWA AJILI YA: MIKUTANO, UTHAURI NA MAHOJIANO

HALMASHAURI YA MANISPAA/JUJI: MBEYA 301

MTAAKATA: BUKATA - SONO LA SOWETO — SPECIAL GROUPS

MISHAURI: NORPLAN

No	JINA	TAASSI	WADHIFA	SIMU No:	SAHIBI	TAREHE
1	OKOLWA NTENZA		MIRADI UBIORESHAJI	0762336526	A. B...	28/12/2021
2	ANNA J. NAWUUBUZA		MIRADI UBIORESHAJI	0733230233	A. NAWUUBUZA	28/12/2021
3	ROINA UJAUDE		MIRADI UBIORESHAJI	-	R. UAUDE	28/12/2021
4	ADRIAN A. MURZA		KATI BU SOKO	075206847	ADRIAN	28/12/2021
5	EDWIN N. MUMBAKA		M. MUMBAKA	0753079497	EDWIN	28/12/2021
6	SALIM GUSONI		M. Gusonia	0754519405	Gusonia	28/12/2021
7	SOSIA SANGA		M. SANGA	-	-	28/12/2021
8						
9						
10						

MWENYEKITI SOKO LA
SOWETO
P. O. BOX 149
MBEYA - JIJI

28/1/2011 KIKAO NA WATU WA WORD BANK NA WATO
WENYO MAHITAJI MATUMU WA WAZEE - SOWETO

(1) Kufunga Kitao -

Mawazo (1) Mnaoanza ujenzi tunaenda tukitolewa.
njenge kwa vipisi

(2) kutitengea eneo la kushushia mizigo wa -
eneo la mame na patoto pia Uyoa vikoleli
wa (3) damo - njenge vile watu wanaenda.

Sio vile selikali unataka ili unawezaje tunaenda
vawe vikubwa vizinda - pambipi ya majali ya weteje
haya (4) Soko la Kifisa barabara ziptike - soko likuwa

(5) Mume kutungwa kwa kuchelewa soko lyejwa kwa
wakati. Swali Ito kikibolelewa ukotayaji kila
koto ya selikali? ndio tupotajaji lakini kila wote awa

kuteng eneo lile - pia tatalifa kaditafiki hio ili
mlali kodi hapana - watu wote hawe ndani ya soko nje
kufuwa wanza chini nje ya soko - mungilishwa kila

jidhaa. Swali Kupisha ujenzi wapi munde? -
ujenzi tunagokea lakini kuwaje kupisha ujenzi kufondolika
kujenge kwa soko kwa mame vipisi vipisi tufihame ikitokea -

kuhama iwe mawenge au mmati - Tukubaliana na tuamini
Selikali kama kuhama sara - vizinda vitabamalewa au
vitaliki? majibu yatapatikana mbele ya soko ujenzi -

ukiianza. Mchukua tuzi dala ni mkuu wa soko kama -
kutakua na maelekezo mengine tutatua maelekezo
kama inawezekana wapo na shule daycare kwa -

wabalo wote - maji yamepo kwa wengi
*Jum ya kitao cha soko zina waje waluhitaji we-
ngewe wote maelekezo juu ya ujenzi. Muisho wa kitao.

- wagani kutoka jiji na wataalamu wanaoishi
 .. Kila kila kumae kwa utambulisho
 Saa: 18:13
 .. mwalimu upo kwenye hatua za utokozwaji
- (1) Swali la kwanza soko litojle kwa ujumla?
 mfuatiliao hio mazi - chefu - mafaa kila bidhaa
 itae sehemu yake.
- (2) Swali la pili tukibakisha mpo tayari kulipa -
 tozo zoyote ya selteli?
 Ndio tupo tayari kwa kuwa hata sisi kina tozo -
 tumaz lipa pia tupo tayari kulipa tozo zingine ili -
 wabadi tushirikishwa.
- (3) Ujumu gani unapata kwenye bidhaa?
 ujumu ni kutokana na bidhaa kwa jle ya soko hivyo -
 wateja wanaishia ujle muna wana kutana na biza -
 tulizo maza ndani ya soko pia stendi iweyo
 stendi ya kuhushia mizigo.
- (4) Nimi kizingatia wakati wa usani fu?
 Stendi iweyo ya mizigo kuhushia. pambaji ya wateja -
 matundu ya vyoo kwa woteji madau - vyumba -
 kuwajili ya wame madau madau - watoto matundu ya -
 Vyoo - umeme - maji - ofisi ya soko - kituo cha polisi
- (5) Nimi kifanyike wakati wa yeyi wa soko?
 Tujenge kwa vipande vipande ili kulinda mitaji yao - vipimo -
 Vya kila kifanda vizingatiwa pamoja na hila tuta wa kuhisha wawa -
 shilikisha wafanyika bidhaa
- (6) Wafanyika munda ili kisha yenzi?

- uwaga wa shule usingi mwingi - uwezi wa yume ya -
niondole.

Hwala la yenzi mabanda na yenzi vitajulikana hapa kida
kama vibadatu? inajibu bado.

X Tuzingatie biashara za watu kwa kigezo kwa vipishi

MRAZI wa BSNH Yr Diwara,

27/12/2021

MWENYI TEGOKO LA
STREET
P.O. BOX 49
MPEYA - RD

0754457821

Annex 13: Stakeholders form for Soweto market – Traders

MRADI WA USHINDANI KATIKA UBORESHAJI WA MIUNDOMBINU KVENYE MIJI YA TANZANIA
(TACTIC)

UPEMBUZI YAKINIFU, USANIFU, TATHMINI ZA ATHARI KWA MANGIRI NA JAMII, UANDAJI WA GHABAYA ZA MRADI NA UANDAJI WA ZABUNI KWA AJILI YA UBORESHAJI WA MIUNDOMBINU
KATIKA HALIMASHAURI ZA MANISPAK ZA
MOROGORO, SONGEA, SUMBAWANGA NA MBEYA (TACTIC KANDA No: 3)

MAHUDHURIO KWA AJILI YA: MIKUTANO, USHAJURI NA MAHOJIANO

1. ALIMASHAURI YA MANISPAK/JIJ: MBEYA CC

MTAA/KATA: RUANDA - SIKO LA SOWETO

MSHAURI: NORPLAN

WAFANYABIASHARA

No	JINA	TAASISI	WADHIFA	SIMU No:	SAHIBI	TAREHE
1	DAUD ROBERT	ALUZI MATUNDA	ALIASI KIMWILI ALIWA	0766 0818 22	17	29/12/2021
2	JULIUS F. J. J. J.	Medimbe	-	0754 333 957	Final	29/12/2021
3	Sikwa	MBS	11		S.	29/12/2021
4	CHRISTIAN	MTAIBATI	M. S. M. B. G.	0713 1139	CLBTA	29-12-2021
5	COTRIDA D. SYAMIR	MALI MIBICHI	11	0763 912472	SAR	
6	ZAINABU STIMBILI	MALI MIBICHI	11	0754 154036	Z. Z	
7	SARINA MPONELA	FUNDI KUWANA	11	0746 2698 49	for panel	
8	JEAN NDOMLINA	MALI MIBICHI				
9	ZAWADI ANDALWISYE	MALI MIBICHI	11	0	20	
10	DISHA SALUM	MALI MIBICHI		0762 283045		

NWENYEKITI SOKO LA
SOWETO
P. O. BOX 149
MBEYA - JIJ

MRADI WA USHINDANI KATIKA UBORESHAJI WA MIUNDOMBINU KWENYE MJI YA TANZANIA
(TACTIC)

1. UPEMBUZI YAKINIFU, USANIFU, TATHMINI ZA ATHARI KWA KAMING'IRA NA JAMII, UANDAJI WA GHARAJA ZA MRADI NA UANDAJI WA ZABUNI KWA AJILI YA UBORESHAJI WA MIUNDOMBINU
KATIKA HAUMASHAURI ZA MANISPAA ZA
MOROGORO, SONCEA, SUMBAWANGA NA MBEYA (TACTIC KANDA N°: 3)

MAHUGHURIO KWA AJILI YA: MIKUTANO, USHAURI NA MAHURUJANDU

1. ALMASHAURI YA MANISPAA/JILI: MBEYA C.C

2. MATARAKATA: RUANDA - SOKO LA SOWETO

MOASHAURI: **NORPLAN**

N°	JINA	TAASISI	WADHIFA	SIMU N°:	SAHIBI	TAREHE
1	MABLAN			076693961	owner	29-12-2021
2	VUMULIA A. ISENYE			0762682363	owner	29.12.2021
3	HEENA AKINA			07560		
4	BERITA NGUMPA			0167 363433		
5	MARY DOMINICK			0757377335	owner	29-12-2021
6	EDWIN R MUMPERIA		MIPINDA CUMBARA	0755079497	owner	29/12/2021
7	NIOLIA HASSAN			0755630468		29-12-2021
8	AINA MBEHA			076638110		
9	EZIA JOSEPH			0748155572		
10	AMET - MWAILELE			076745620		

MWENYEKITI SOKO LA
SOWETO
 P. O. BOX 149
 MBEYA - JIJ

MRADI WA USHINDANI KATIKA UBORSHAJI WA MIUNDOMBINU KWENYE MUJI YA TANZANIA
(TACTIC)

UPEMBUZI YAKINIFU, USANIFU, TATHMINI ZA ATHARI KWA MAING'IRA NA JAMILI, UANDAJI WA MRADI NA UANDAJI WA ZABUNI KWA AJILI YA UBORSHAJI WA MIUNDOMBINU
KATIKA HALI MASHAURI ZA MANISPA ZA
MOROCORO, SONCEA, SUMBAWANGA NA MBEYA (TACTIC KANDA N° 3)

MAHUDHURIO KWA AJILI YA: MIKUTANO, USHAURI NA MAHOJIANO

HAJIMASHAURI YA MANISPA/JILI: MBEYA CC

MASHAURI:..... **NORPLAN**

MTAKATA: RUANDA - SOKO LA SOWETO

WAFANYA BIASHARA

N°	JINA	TAASISI	WADHIFA	SIMU N°	SAHIMI	TAREHE
1	YONGA SENKA					
2	FELICIA MZIMBAJE					
3	ISSA MURISENGETI			0756394044	J. G. G. G.	29/12/2021
4	ZAKO SMULO SANGA			07540710359	Z. S. S. S.	29/12/2021
5	SALIM A. MURSHIDI			0784670081	M. S. S. S.	29/12/2021
6						
7						
8						
9						
10						

MWENYEKITI SOKO LA
SOWETO
P. O. BOX 149
MBEYA - JIJI

MIRADI WA USHINDANI KATIKA UBRESHAJI WA MIUNDOMBINU KWENYE MUJI YA TANZANIA
(TACTIC)

UPEMBUZI YAKINIEU, USANIEU, TATHIMINI ZA ATHARI KWA MANGIRA NA JAMII, UANDAaji WA GHABAMA ZA MRADI NA UANDAaji WA ZABUNI KWA AJILI YA UBRESHAJI WA MIUNDOMBINU
KATIKA HALIMASHAURI ZA MANISPAA ZA
MOROCORO, SONGEA, SUMBAWANCA NA MBEYA (TACTIC KANDA N°: 3)

MAHUDHURIO KWA AJILI YA: MIKUTANO, USHAURI NA MAHOJIANO

KALIMASHAURI YA MANISPAA/AJILI: MBEYA CC

MTAKAKATA: BLANDA - SOKO LA SOWETO

MSHAURI: NORPLAN

WAFANYABIASHARA

No	JINA	TAMSI	WADHIFA	SIMU Na:	SAHIHI	TAREHE
1	EDINA KIBI BSI	MUWIZO MURUWA	1)	0766943013		
2	REBEKA MUMUMBI	1)	1)	0756627546		
3	ALIRAHU MZGA	SOWETO ESTW.	PAT (BC)	075626867		
4	NEEMA .C.D.			07564411		
5	ANTHONY MUKUMBI	SOWETO	W/ PANGUMBI ESTW.	0756486341		
6	SHAHIRY BASHIRU	SOWETO	M/KITIKO ESTW.	0756457801		
7						
8						
9						
10						

MKENYETI SOKO LA
SOWETO
P. O. B. 19
MBEYA - MUJI

HAIMOSITURI YA JIJI LA MBEYA OFISI YA AFISA MTENDASI MTAA WA SOWETO KATA YA RUADA S.2.P 149 MBEYA. MUHTASARI WA KIKATO CHA WAFANYABIASHARA WA SOKO LA SOWETO NA WADAI WA MAENDELEO KUTOA OFISI YA MURUBENZI WA JIJI LA MBEYA NA TAMISEMI KILICHOFANYIKA TAREHE 29/12/2021 SAA 11:08 ASUBUHI SOKO LA SOWETO.

DONDODU ZA MKUTANO

1. KUFUNGUUA MKUTANO
2. KUCHUKUA MAONI YA WAFANYABIASHARA JUU YA MABAI WA WIENZI WA SOKO CHINI YA UFADHILI WA WORLD BANK
3. KUAMRISHA KIKATO.

MUHT. NO. 01. KUFUNGUUA MKUTANO. Kwenye kiti wa SOKO alianza kwa kuwasalimu wajumbe, kisha aka mkambisha alieiti wa mtai naye hivyo alwasalimu wajumbe kisha akafungua mkutano mnamo saa 11:08 asubuhi.

MUHT. NO. 02. KUCHUKUA MAONI YA WAFANYABIASHARA JUU YA MABAI WA WIENZI WA SOKO. Afisa mtendaji wa kati alianza kwa mkambisha mkambishi wa mradi huu toka ofisi ya Tamiseemi. Na mkambishi alieiti kwa kusema kuwa soko la Soweto ni mwa ya mradi liliopitishwa na vikao vyote kati ya juu ya ujenzi wa soko baada ya hili la awali kuwa chataa sana na baada ya wafanyabiashara kumbwa ukataka hivyo bati kwa sasa sisi kutuna mambo mengi tuna utambulisha kweni huu mradi ambao unatarajiwa kuanza mnamo mwezi Julai 2022. Hivyo bati kabla ya kuja hapa tulitangulia kuanza kwa mkunugenzi wa Jiji kumueleza na alitupa kibali cha kuta huku na kutamkitaisha kwa mwa ujenzi utakapuanza atamtafutia sehemu mbalala ya kufanyia shughuli zenu mwa Pule mradi utakapoku mwa Baada ya hayo alitambisha wafanyabiashara kuwa atili ya maoni.

Mfanya biashara wa 01 FREDY MWAI LONGANE alianza kuwa kusema mradi tumebipokea tla uasiwa wetu ni kweli - sengine haingati muda wa ualengu

- kwa maana ya kuamba muda wa mradi wakatanga hauzingatiiwi.
- Walengwa hawarudigi wote mradi ubisha wancheta watu wao.
- kupoteza uamisi tuka tufisi za miko na benki tulizokopa baada ya uhamis huo.
- Tulikuwa tunaomba kufenga upande kwa upande yaani tukamishwe ku awamu.

02) ESTO PAULO MWAKATAKA - Hugu alitoka hapa y kuwa tuna upande wa wauza nyanya umbao haukuna nafasi wachakatwe.

03. SARAPHINA BENARD - Tujenge kwa utaratibu kuhama hama sio soko lifungwe.

4. KITU MFLUPI - Mfadhiti wabwama hawajamaliza kazi je? Mfadhiti wa pili tukikikishie kuwa atamaliza ujuzi na pia hatitachangishwa na pia suala hili lion sambamba na uchiguzi wa soko

5. ANITHA - Aidau alichangia kuwa tunamshauri mkunyerzi ajenge masoko mengine kama ulimlini hii la Soweto tujenge wenyewe

6. ANTONY MWAKYUSA - Tulianza makunguru tukaja kutupwa Soweto hivyo basi uasiwazi wetu pia tunaweza kuwenda kutupwa sehemu nyingine sio hii tena.

- Hivyo basi maboreشو yafikite kwenye barabara n mifanji ndani ya soko.

- Pia soko lifungwe la dhini.

- Tupate ramani ikiwa pendeza tujenge wenyewe.

- Pia sengine itingalie kuwa tuna mikoro

- Tupate dambo zao

- Masoko mazuri ni mawazo ya wafanya biashara

07. **MARIAM PAULU** - Tuliunde kamati ya usenzi u
wafanyabiashara na serikali
- Wenzetu wa siku wako vizuri kwa sababu wa
jishamitizi
- Hatutaki mengine wa mwanjeluzi
- Mkuu wa wilaya hawawi kutembelea ha kutambua
kero zetu
- Mkuu wa Mkoa pia
- Mkuugenzi pia aye asikihize kero zetu wanaomb
waenge wenyewe.

08. **MWANATID TAWAFU ISSA** - Tunaomba tujenge
wenyewe.

09. **JULIANA SANGA** - Tunaomba sana linavyoengua
Soko tustondoke na pia tunaomba soko letu liswe
shorofu.

10. **TIMOTH NDIMBWA** - cha msingi tunaomba soko hii
tuyenge wenyewe.

Baada ya kuchukua maoni hayo ya wafanyabiashara
Shari ENH. MRAZI STRIKISTI alichangiza kwa kuu
aambia tumechukua maoni yetu na pia katika hii
Uguzi mmpendeleza kuwa mmitaka dengo la chini,
Stendi, wito wa kunyonyea na pia dampo, miondo mibu
ya kabara na mifereji

MUKI. NO 03. KUATHIRISTO MUKI. NO. Mwenyekiti
aliwashukuru wafanyabiashara kwa kusikiza madi
zote kwa utulizi bisha akahimisha MUKI. NO
mnamo saa 7.00 Mchana.

UMEDHINIISHWA NA.

RAMADHAN TAVEE

JUSTINA MUKI

TH - Z

Itani


MUKI. NO MUKI. NO

CHADAJI MTAA - SOWETO
KATA YA RUANDA
SOKO MBEYA
KATIBU

Annex 14: Title deed for Sokomatola market

THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF LANDS, HOUSING AND HUMAN SETTLEMENTS DEVELOPMENT

Telegrams: LANDS
Telephone: 2121241-9
In reply please quote:
Ref. No. LR/T 56539

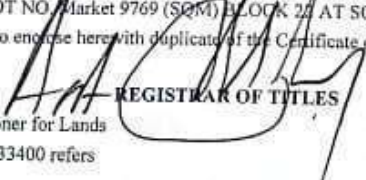


LAND REGISTRY,
P.O Box 1191,
Dar es salaam.
Date: 17 Jun, 2022

MBEYA CITY COUNCIL Established Under the Local Government (Urban Authorities) Act
No. 8, 1982
P.O Box 149,
MBEYA
Sir/Gentlemen/Madam,

RE: TITLE NO: 56539 LAND OFFICE NO: 1294001
PLOT NO. Market 9769 (SQM) BLOCK 22 AT SOKO MATOLA

I have the honour to enclose here with duplicate of the Certificate of Title Numbered as above
please.


REGISTRAR OF TITLES

Copy to: Commissioner for Lands
Your LD File No: 33400 refers

(Under Section 29)

Date of Issue: _____

Title Number: 56539-MBY12.

Land Office Number: 1294001

Land: Plot No. Market (9,769 Sqm) Block '22' Sokomatola Area, Mbeya City

Term: Ninety Nine Years

TITLE No: 56417-MBYLR
 REGISTERED ON: 16-06-2022
 AT: 01:00 PM
 Senior Asst. Registrar of Titles

TANGANYIKA STAMP DUTY ACT
 Land Form No. 22
 Stamp Duty Shs: 100/- Paid
 Receipt No: 922184109883102
 of: 06-06-2022
 Stamp Duty Officer

TANGANYIKA STAMP DUTY ACT
 Stamp Duty Shs: 590/- Paid
 On Original Receipt Shs: 922184109883102
 of: 06-06-2022
 Stamp Duty Officer

THE UNITED REPUBLIC OF TANZANIA

THE LAND ACT, 1999
 No. 4 OF 1999

CERTIFICATE OF OCCUPANCY

(Under Section 29)

Title No: 56417-MBYLR
 L.O. No: 1294015
 L.D. No: MBRL/8310

The 14 day of June Two thousand and Twenty two

THIS IS TO CERTIFY that **MBEYA CITY COUNCIL** Established Under the Local Government (Urban Authorities) Act No. 8, 1982 of P.O. Box 149 **MBEYA** MOB: +255 25023772, (hereinafter called "the Occupier") is entitled to a right of Occupancy (hereinafter called "the Right") in and over the land described in the Schedule hereto (hereinafter called "the Land") for a term of **Ninety Nine** years from the **First** day of **April** Two Thousand and **Twenty two** according to the true intent and meaning of the Land Act and subject to the provisions thereof and to any regulations made there under and to any enactment in substitution therefore or amendment thereof and to the following special conditions:-

1. The Occupier having paid rent up to the thirtieth day of June 2022 shall thereafter pay rent of shillings **Five hundred (5,000/=)** only a year in advance on the first day of July in every year of the term without any deduction PROVIDED that the rent may be revised by the Commissioner for Lands.
2. The Occupier shall:-
 - (i) Be responsible for the protection of all beacons on the land throughout the term of the Right. Missing beacons will have to be re-established at any time at the Occupier's expenses as assessed by the Director.

- (ii) Do everything necessary to preserve the environment and protect the soil and prevent soil erosion on the land and do all things which may be required by the authorities responsible for environment and to achieve such objective.
 - (iii) Buildings to be in permanent materials.
 - (iv) Building plans to be submitted to the **Mbeya City Council** within six months from the date of commencement of the Right.
 - (v) Construction of buildings to start within six months after the Approval of building plans.
 - (vi) Buildings to be completed within thirty six months from the date of commencement of the Right.
3. **USER:** The Land and the buildings to be erected thereon shall be used for **Special Retail Services and Trades Purpose only. Use Group "E" Use classes (e)** as defined in the Urban Planning (Use Groups and Classes) Regulations, **2018**
- The Occupier shall not assign the right within three years of the date hereof without the prior approval of the Commissioner.
- The Occupier shall deliver to the Commissioner notification of disposition in prescribed form before or at the time the disposition is carried out together with the payment of all premia, taxes and dues prescribed in connection with that disposition.
- The President may revoke the right for good cause or in public interest.

SCHEDULE

All that land known as Plot No. **MARKET (9,769 SQM)** Block "22" Situated at **Sokomatola Area in Mbeya City** containing **Nine Thousand Seven Hundred Sixty-Nine (9,769) square meters** shown for identification only edged red on the plan attached to this Certificate and defined on the registered Survey Plan Numbered **4593** deposited at the Office of the Director for Surveys and mapping at Dar es Salaam.
Given under my hand and official seal the day and year first above written.



ASSISTANT COMMISSIONER FOR LANDS

We, the within named **MBEYA CITY COUNCIL** established under the Local Government (urban authorities) hereby accept the terms and conditions contained in the foregoing Certificate of Occupancy.

SEALED with the **COMMON SEAL** of the said
MBEYA CITY COUNCIL and **DELIVERED** in the
presence of us in this
..... day of JUNE 2022

Witnesse's:

Name: LAURENCE MAUSOMI KIBOMA

Signature: [Signature]

Postal Address: 149, MBEYA

Qualification: CITY DIRECTOR

Witnesse's:

Name: DOROTHY WSA RANMAT

Signature: [Signature]


Postal Address: 149, MBEYA

Qualification: HON. MAYOR

Annex 15: Title Deed for Soweto Market

THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF LANDS, HOUSING AND HUMAN SETTLEMENTS DEVELOPMENT

Telegrams: LANDS
Telephone: 2121241-9
In reply please quote:
Ref. No. LR/T 56417




LAND REGISTRY,
P.O Box 1191,
Dar es salaam.
Date: 17 Jun, 2022

MBEYA CITY COUNCIL Established Under the Local Government (Urban Authorities) Act
No. 8, 1982
P.O Box 149,
MBEYA
Sir/Gentlemen/Madam,

RE: TITLE NO: 56417 LAND OFFICE NO: 1294015
PLOT NO: 1037, 1038 & 1039 BLOCK 'Q' AT MWANJELWA

I have the honour to enclose herewith duplicate of the Certificate of Title Numbered as above
please.


REGISTRAR OF TITLES

Copy to: Commissioner for Lands
Your LD File No: 8310 refers

Date of Issue:
Title Number: 56417 - MBYLA
Land Office Number: 1294015
Land: Plot No. 1037, 1038 & 1039 Block 'Q' Kwanjelwa Area, Mbeya City

Term: Ninety Nine Years

TITLE No: 56417-MBYLR
 REGISTERED ON: 16-06-2022
 AT: 01:00 PM
 Senior Asst. Registrar of Titles

TANGANYIKA STAMP DUTY ACT
 Land Form No. 22
 Stamp Duty Shs: 100/- Paid
 Receipt No: 922184109883102
 of: 06-06-2022
 Stamp Duty Officer

TANGANYIKA STAMP DUTY ACT
 Stamp Duty Shs: 590/- Paid
 On Original Receipt Shs: 922184109883102
 of: 06-06-2022
 Stamp Duty Officer

THE UNITED REPUBLIC OF TANZANIA

THE LAND ACT, 1999
 No. 4 OF 1999

CERTIFICATE OF OCCUPANCY

(Under Section 29)

Title No: 56417-MBYLR
 L.O. No: 1294015
 L.D. No: MBRL/8310

The 14 day of June Two thousand and Twenty two

THIS IS TO CERTIFY that **MBEYA CITY COUNCIL** Established Under the Local Government (Urban Authorities) Act No. 8, 1982 of P.O. Box 149 **MBEYA** MOB: +255 25023772, (hereinafter called "the Occupier") is entitled to a right of Occupancy (hereinafter called "the Right") in and over the land described in the Schedule hereto (hereinafter called "the Land") for a term of **Ninety Nine** years from the **First** day of **April** Two Thousand and **Twenty two** according to the true intent and meaning of the Land Act and subject to the provisions thereof and to any regulations made there under and to any enactment in substitution therefore or amendment thereof and to the following special conditions:-

1. The Occupier having paid rent up to the thirtieth day of June 2022 shall thereafter pay rent of shillings **Five hundred (5,000/=)** only a year in advance on the first day of July in every year of the term without any deduction PROVIDED that the rent may be revised by the Commissioner for Lands.
2. The Occupier shall:-
 - (i) Be responsible for the protection of all beacons on the land throughout the term of the Right. Missing beacons will have to be re-established at any time at the Occupier's expenses as assessed by the Director.

- (ii) Do everything necessary to preserve the environment and protect the soil and prevent soil erosion on the land and do all things which may be required by the authorities responsible for environment and to achieve such objective.
 - (iii) Buildings to be in permanent materials.
 - (iv) Building plans to be submitted to the **Mbeya City Council** within six months from the date of commencement of the Right.
 - (v) Construction of buildings to start within six months after the Approval of building plans.
 - (vi) Buildings to be completed within thirty six months from the date of commencement of the Right.
3. **USER:** The Land and the buildings to be erected thereon shall be used for **Special Retail Services and Trades Purpose only. Use Group "E" Use classes (e)** as defined in the Urban Planning (Use Groups and Classes) Regulations, **2018**
- The Occupier shall not assign the right within three years of the date hereof without the prior approval of the Commissioner.
- The Occupier shall deliver to the Commissioner notification of disposition in prescribed form before or at the time the disposition is carried out together with the payment of all premia, taxes and dues prescribed in connection with that disposition.
- The President may revoke the right for good cause or in public interest.

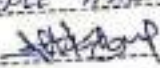
SCHEDULE

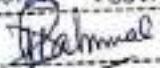
All that land known as Plot No. 1037, 1038 and 1039 Block "Q" Situated at Mwanjelwa Area in Mbeya City containing Two point seven eight nine (2.789) Acres shown for identification only edged red on the plan attached to this Certificate and defined on the registered Survey Plan Numbered 16507 deposited at the Office of the Director for Surveys and mapping at Dar es Salaam. Given under my hand and official seal the day and year first above written.


ASSISTANT COMMISSIONER FOR LANDS

We, the within named **MBEYA CITY COUNCIL** hereby accept the terms and conditions contained in the foregoing Certificate of Occupancy.

SEALED with the **COMMON SEAL** by the said **MBEYA CITY COUNCIL** in my presence this 08th day of JUNE 2022.

Witnesse's:
 Name: LAWRENCE HANISWA KIRWA
 Signature: 
 Postal Address: 149, MBEYA
 Qualification: CITY DIRECTOR

Witnesse's:
 Name: DORMOHAMBA ISSA RAHMAT
 Signature: 
 Postal Address: 149, MBEYA
 Qualification: HON. MAYOR

Annex 16: Tittle deed for Grains and fruit market at old airport

UNITED REPUBLIC OF TANZANIA
MINISTRY OF LANDS HUMAN SETTLEMENTS DEVELOPMENT



OFFICE OF THE REGISTRAR OF TITLES,
MBEYA REGION,
P.O. BOX 2984,
MBEYA.
6th April 2023

Telephone: 2502318
In reply, please quote
Ref. No. LR/MBY/T/.....
To:
.....
.....

RE: THE LAND REGISTRATION ACT (CAP.334)
ISSUED UNDER S. 82

TITLE NO: 53264/2-MBYA O. NO. 1151399

PLOT NO. 1348/8 BLOCK S LOCATION IYELA AREA

I have the honor to enclosed herewith duplicate of the Certificate of Title Numbered as above please.

1. I have the honor to refer to letter referenced..... from the Assistant
Commissioner for Lands dated..... and enclosures thereto.

2. Having been registered, enclosed herewith find the counter part of Certificate of Title Number as above for your safe
custody.

I have the honor to be Sir/Gentleman/Madam
Your Obedient Servant


ASST. REGISTRAR OF TITLES

THE LAND REGISTRATION

ORDINANCE (CAP. 334)

DECLARATION OF AN APPLICATION FOR RECTIFICATION OF AN ERROR IN THE LAND REGISTER UNDER SECTION. 99 (1) F



C.T. No.53264/2-MBYLR
L.O.No. 1151399
L.D. No.MBRL/29656
PLOT NO.1348/8
BLOCK: 'S'
LOCATION: IYELA

I, **DICKLEY E. NYATO**, Authorised Land Officer of P.O.BOX 149, Mbeya do hereby solemnly declare as follows: -

THAT, the Certificate of Occupancy with L.O. No. **1151399** in respect of Plot No. **1348/2** Block '**S**' **IYELA AREA** Mbeya City was duly registered under the above reference.

THAT, **MBEYA CITY COUNCIL** established under section 4 of The Local Government Ordinance 1953 of P.O.BOX 149 **Mbeya** was given/ allocated the mentioned Plot with a Right of Occupancy which commenced on the **1st day of July 2022** for a term of Ninety-Nine (**99 years**).

THAT, I am satisfied that an error was made in granting the use of the said Plot.

THAT, the Use of said Land is **Special Retail Service and Trade** purposes only Use Group '**E**' Use Classes (d) and (e) which is supposed to be rectified and replaced by the use of the land of **Special Retail Service and Trade** purposes only Use Group '**E**' Use Classes (e).

AND I, the said **DICKLEY E. NYATO**, make this solemnly declaration conscientiously believing the same to be true and in accordance with the provisions of the Oaths (Judicial Proceeding and statutory Declarations Act, 1966 R.E. 2002)

This Declaration is made and Subscribed to me by the said)

DICKLEY E. NYATO

Who is known to me personally/ identified to me in my)

Presence this 13TH day of APRIL 2023.

Name : MASHAWE A. SUBIRA

Signature : [Signature]

Postal Address: P.O. BOX 485, MBEYA

Qualification : LAND OFFICER

TANGANYIKA

The Land Registration Ordinance (Cap. 334 of the Laws)

CERTIFICATE OF TITLE TO RIGHT OF OCCUPANCY

This is to certify that the annexed Certificate of Occupancy dated

the 13th day of October 2020....

is registered in the Land Registry under Title No. 53264-NBYLA

Copies of the subsisting entries in the register are within

Dated the 6th day of April 2023....

M^{RS} I HWALUFUNDA

Assistant Registrar of Title

Title No. 53264/2-NBYLA Description of registered land.

ALL Land measuring known as Plot No. 1342/3 Block "S", Situated at Iyela Area in Mbeya City containing one point zero zero (1.00) Hectares, shown for identification only edged on the plan attached to this Certificate and defined on the registered survey plan numbered 113354 deposited at the Office of the Director for Survey and Mapping at Dodoma.



THE UNITED REPUBLIC OF TANZANIA

THE LAND ACT, 1999
No. 4 OF 1999

CERTIFICATE OF OCCUPANCY

(Under Section 29)

Title No: 53264-MBYLR
L.O. No: 1151399
L.D. No: MBRL/29656

The 13TH day of OCTOBER Two thousand and Twenty

THIS IS TO CERTIFY that **MBEYA CITY COUNCIL** Established under section 4 of The Local Government Ordinance, 1953 of P. O. Box 149, **MBEYA**, (hereinafter called "the Occupier") are entitled to a right of Occupancy (hereinafter called "the Right") in and over the land described in the Schedule hereto (hereinafter called "the Land") for a term of **Ninety Nine** years from the **First** day of **July** Two Thousand and **Twenty** according to the true intent and meaning of the Land Act and subject to the provisions thereof and to any regulations made there under and to any enactment in substitution therefore or amendment thereof and to the following special conditions:-

1. The Occupier having paid rent up to the thirtieth day of June 2021 shall thereafter pay rent of shillings **Twenty Eight Million Seven Hundred and Eight Thousand Six Hundred (28,708,600/=)** only a year in advance on the first day of July in every year of the term without any deduction PROVIDED that the rent may be revised by the Commissioner for Lands.

16



2. The Occupier shall:-

- (i) Be responsible for the protection of all beacons on the land throughout the term of the Right. Missing beacons will have to be re-established at any time at the Occupier's expenses as assessed by the Director responsible for Surveys and mapping.
- (ii) Do everything necessary to preserve the environment and protect the soil and prevent soil erosion on the land and do all things which may be required by the authorities responsible for environment and to achieve such objective.
- (iii) Buildings to be in permanent materials.
- (iv) Building plans to be submitted to the **Mbeya City Council** within six months from the date of commencement of the Right.
- (v) Construction of buildings to start within six months after the Approval of building plans.
- (vi) Buildings to be completed within thirty six months from the date of commencement of the Right.

FD NO.
35453-MBYLR
M.M/AR

3. **USER:** The Land and buildings to be erected thereon shall be used for **Special Retail Service and Trade purposes** only. Use Group **"E"** Use Classes ~~(d)~~ and (e) as defined in the Urban planning (Use Groups and classes) Regulations, 2018.
4. The Occupier shall not assign the right within three years of the date hereof without the prior approval of the Commissioner.
5. The Occupier shall deliver to the Commissioner notification of disposition in prescribed form before or at the time the disposition is carried out together with the payment of all premia, taxes and dues prescribed in connection with that disposition.
6. The President may revoke the right for good cause or in public interest.

LAND REGISTRY MBEYA

SEPARATE TITLE ISSUED

Filed Document No. UNDER C.T. NO.

Date of Registration..... Time.....

53264/1-MBYLR, 53264/2 -

MBYLR

Senior Asst. Registrar of Titles

Certified True Copy

Senior Asst. Registrar of Titles


Date: 6-04-2023



SCHEDULE

All land known as Plot No. 1348 Block 'S' Situated at **IYELA Area** in **Mbeya City** containing **Forty Five Point Seven Three (45.73) Hectares** shown for identification only edged **red** on the plan attached to this Certificate and defined on the registered Survey Plan Number **113334** deposited at the Office of the Director for Surveys and mapping at Dar es Salaam.

Given under my hand and my official seal the day and year first above written.


 ASSISTANT COMMISSIONER FOR LANDS

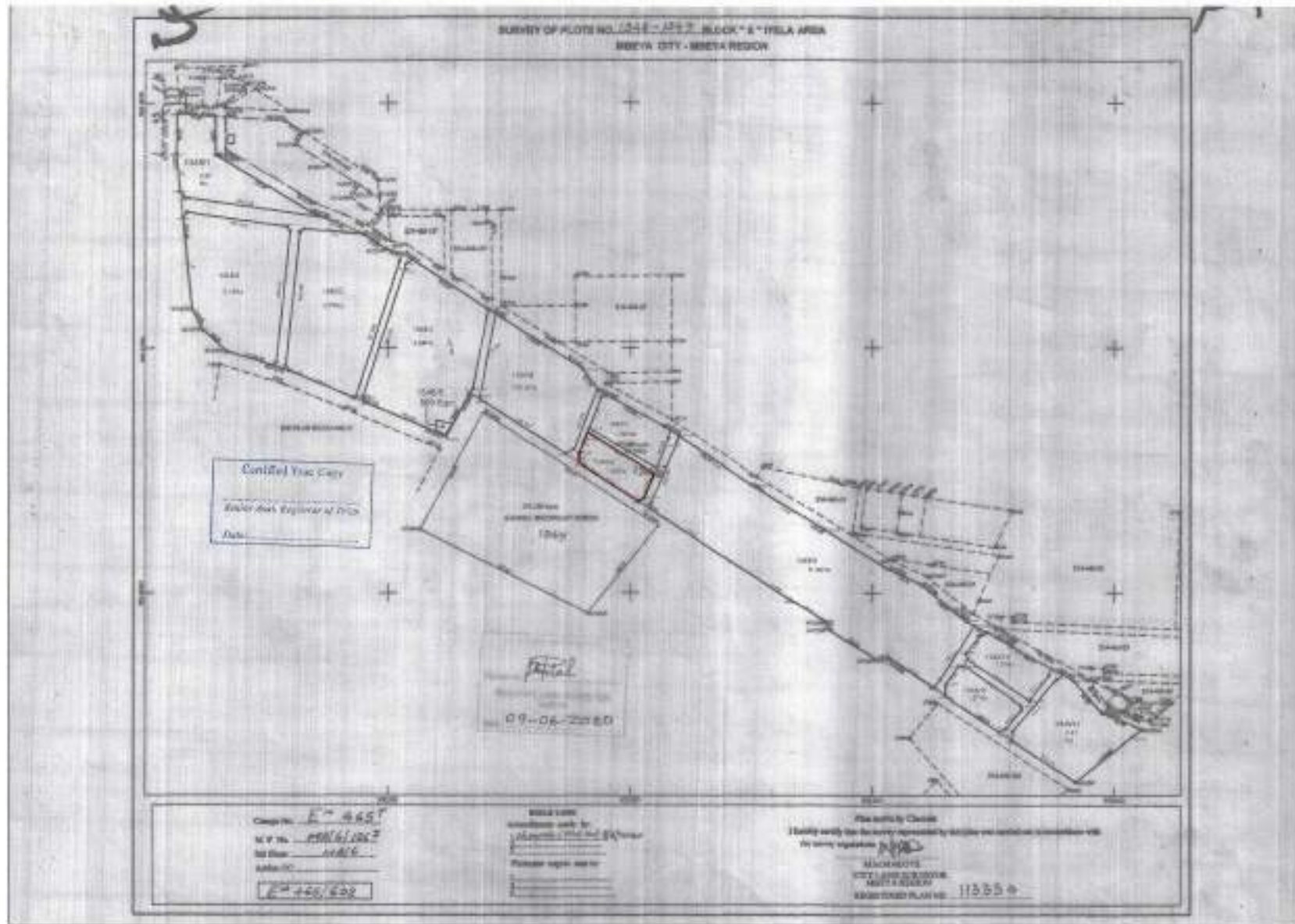
We, the within named **MBEYA CITY COUNCIL** hereby accept the terms and conditions contained in the foregoing Certificate of Occupancy.

SEALED with the **COMMON SEAL** of the said
MBEYA CITY COUNCIL
 and **DELIVERED** in the presence of us
 in this 21st day of September 2020.

Witness's:

Name: MURADO S. A. NGWANGUARD
 Signature: [Signature]
 Postal Address: P.O. Box 149
MBEYA
 Qualification: CITY DIRECTOR

Name: BERNARD N. RUSIUS
 Signature: [Signature]
 Postal Address: P.O. Box 149,
MBEYA
 Qualification: CHRO



Annex 17: Geotechnical Study Report

5. Geotechnical Investigation

5.1 Introduction

The Geotechnical Investigation for Soko Matola Market, Soweto Market, Grain & Fruit Market and Central & Mini Bus Terminal was a component of the project for Feasibility Study, Urban Design, Detailed Engineering Design, Environmental and Social Due Diligence, Preparation of Cost Estimates and Bidding Documents for Urban Infrastructure Investments for Morogoro, Songea, Sumbawanga and Mbeya Councils (TACTIC ZONE 3) in Mbeya City. The scope of the assignment also involved the architectural and structural design of the three mentioned markets and Central and Mini Bus Terminal in Mbeya City.

This report summarizes the findings and observations obtained from the field and laboratory testing. The site work also involved Excavation of Trial Pits to 3m depth from the ground surface or refusal, profiling and sampling and performing Dynamic Probing Super Heavy (DPSH) Test. The field investigations were carried out in June to July 2022 in accordance with the British Standard Specifications (BS 5930:1999+A2:2010: Code of Practice for Site Investigation) and ISO 22476-2:2005 Field testing — Part 2: Dynamic probing.

The collected soil samples from trial pits were sent to Norplan Soil Mechanics Laboratory for testing. The tests included Classification tests (particle size distribution analysis, atterberg limits, linear shrinkage), shear strength tests and chemical tests for soil samples. The laboratory testing was carried out in accordance to BS 1377:1990.

The report also provides details of the tests carried out, their analysis and foundation recommendations.

5.2 Objectives



The main objectives of the ground investigation were to determine the probable sub surface conditions such as stratification, denseness or hardness of the strata and position of groundwater.

5.3 The Site Geology

5.3.1 Site location

The sites were located in Mbeya City. Location of Trial Pits and DPSH Points is given in the form of coordinates in Table 5-1.

5.3.2 Geological Outline

The geological formation of Mbeya area is characterized by Ubendian shear belt of Paleoproterozoic era which covers the south western of Tanzania. The Ubendian Belt is characterized by an early deformation and granulite-facies metamorphism, isotopically dated at 2100–2025 Ma, and marked by an E-W to ESE-WNW trending foliation.

5.4 Applicable standards

The followings standards are applied:

- BS 5930:1999 + A 2: 2010: Code of practice for site investigations
- ISO 22476-2:2005: Field testing — Part 2: Dynamic probing.
- BS 1377:1990; Method of test for soils civil engineering Purposes

5.5 Field Investigation

The scope of work included test pit excavations to depths of 3.0m below the ground level or refusal and performing Dynamic Probing Super Heavy (DPSH) Tests.

The actual locations of investigation points were done using handheld GPS and the coordinates indicated in the layouts in Appendix 1. The coordinates for DPSH and test pit locations are presented in

Table 5-1 below.

Table 5-1, Investigation Points Coordinates

Point ID	Depth below GL (m)	Coordinates (m) in WGS 84		Remarks
		Eastings	Northings	
TP 1	3.0	547975.3477	9017081.8730	Soko Matola Market
TP 2	2.9	548002.4173	9017031.0729	
TP 3	2.8	548025.2534	9016993.9087	
DPSH 1	11.8	547971.8028	9017006.6420	
DPSH 2	11.8	548044.1936	9017070.7960	
TP 1	2.3	551485.5718	9015061.0026	Soweto Market
TP 2	2.2	551545.6160	9015012.2362	
TP 3	2.2	551555.2488	9014949.9626	
DPSH 1	8.4	551469.8998	9015000.1036	
DPSH 2	9.0	551631.3900	9015029.6100	
TP 1	3.1	550294.8644	9014419.4895	Central & Mini Bus Terminal
TP 2	3.0	550294.8644	9014374.4895	
TP 3	3.1	550294.8644	9014285.4895	
DPSH 1	10.4	550228.3200	9014419.7500	
DPSH 2	10.4	550357.8600	9014419.7500	
DPSH 3	9.8	550295.0000	9014308.0000	Grain & Fruit Market
TP 1	3.0	550955.0000	9013947.0000	
TP 2	2.8	551000.0000	9013940.0000	
TP 3	2.8	551086.0000	9013929.0000	
DPSH 1	8.6	550984.0000	9013975.0000	
DPSH 2	11.8	551033.0000	9013918.0000	

5.5.1 Test Pits

Three (3) Trial pits were done at each site making a total number of Twelve (12) Trial pits in Mbeya city. Each Trial pit was dug to 3.0m depth below the existing ground level or refusal by manual labours.

Generally, for each test pit the following was carried out;

- Profile description of subsoil layers,
- Taking a coloured picture of the profile
- Taking a representative sample of the existing subgrade layer for subsequent laboratory testing,
- Recording level of ground water table in case encountered.



Selected trial pits photos for Mbeya City sites are presented in the figures below;



Figure 3-1(a) –Selected trial Pits photos (Soko Matola-TP01, Central & Mini bus Stand-TP01&03, Grain and Fruit Market –TP01)



Figure 5-1(h) –Selected trial Pits photos (Saweto TP03, Grain and Fruit Market –TP02 &03)

5.5.2 Dynamic Probing Super Heavy (DPSH) Test

DPSH test is useful for continuous assessment of subsurface strata throughout the depth of investigation. The test involved driving a disposable cone into the ground using a 63.5kg



hammer falling through 76cm height. The blow counts were recorded for each 20cm advance into the ground according to ISO 22476-2:2005 Field testing — Part 2: Dynamic probing. Selected DPSH site photos for Mbeya City sites are presented in figure 5.2 below, the Depth Vs Blow counts plots for each DPSH Test are presented in section 5.6.2 below.



Figure 5-2(a) –Selected DPSH photo at Soweto Market DPSH 01 and Soko Matola Market-DPSH 02



Figure 5-2(a) –Selected DPSH photo at Central and Mini Bus stand DPSH 03 and Grain & Fruit Market-DPSH 02

5.6 Investigation Results



5.6.1 Subsurface Conditions

This section briefly describes the subsoil strata encountered at site. The detailed soil conditions are described in logs presented in Appendix G. Test pits encountered the following general succession of strata presented below.

5.6.1.1 Borehole Profiles

- a) **Soko Matola Market - Pit 1**
0.00 – 3.00m Moist, reddish brown, Sandy CLAY of intermediate plasticity
- b) **Soko Matola Market - Pit 2**
0.00 – 2.90m Moist, Reddish brown, grey Sandy CLAY of intermediate to high plasticity
- c) **Soko Matola Market - Pit 3**
0.00 – 2.80m Moist, Reddish brown, grey Sandy CLAY of intermediate plasticity
- d) **Soweto Market - Pit 1**
0.00 – 0.20m Dry Gravel Seam
0.20 – 2.30m Dry, dark reddish non plastic Sandy SILT
- e) **Soweto Market - Pit 2**
0.00 – 0.20m Dark, organic soil - Top Soil
0.20 – 1.65m Dry greyish, poorly graded non-plastic Sandy GRAVEL
1.65 – 2.20m Moist, dark reddish grey, non-plastic sandy SILT
- f) **Soweto Market - Pit 3**
0.00 – 0.20m Dry Gravel Seam
0.20 – 0.65m Dry, reddish, non-plastic Sandy SILT
0.65 – 1.30m Dry, greyish, non-plastic Silty Sandy GRAVEL
1.30 – 2.20m Moist, reddish, non-plastic Sandy SILT
- g) **Central & Mini Bus Terminal - Pit 1**
0.00 – 2.50m Dry, dark reddish, poorly graded non-plastic Silty Sandy GRAVEL
2.50 – 3.10m Moist, reddish, non-plastic, Gravelly Sandy SILT



h) Central & Mini Bus Terminal - Pit 2

0.00 – 2.40m	Dry, greyish, poorly graded non plastic Silty Gravelly SAND
2.40 – 3.00m	Moist, dark, greyish, red Gravelly Sandy SILT

i) Central & Mini Bus Terminal - Pit 3

0.00 – 1.60m	Moist, Reddish, grey Poorly graded non plastic Silty Gravelly SAND
1.60 – 3.10m	Moist, reddish, non-plastic Sandy SILT

j) Grain & Fruit Market - Pit 1

0.00 – 2.40m	Dry, Greyish, poorly graded non plastic Silty Sandy GRAVEL
2.40 – 3.00m	Moist, reddish non plastic Sandy SILT

k) Grain & Fruit Market - Pit 2

0.00 – 1.20m	Dry, greyish, non-plastic Sandy SILT
1.20 – 3.00m	Moist, reddish grey, non-plastic Gravelly Sandy SILT

l) Grain & Fruit Market - Pit 3

0.00 – 1.90m	Moist, dark reddish grey, Sandy CLAY of intermediate plasticity
1.90 – 2.80m	Moist, reddish grey Gravelly Sandy SILT

5.6.2 Dynamic Probing Super Heavy (DPSH) Test

The Charts of Depth Vs Blow counts for each Dynamic Probing Super Heavy (DPSH) for each site in Mbeya City are presented below.



I. Soko Matola Market Site

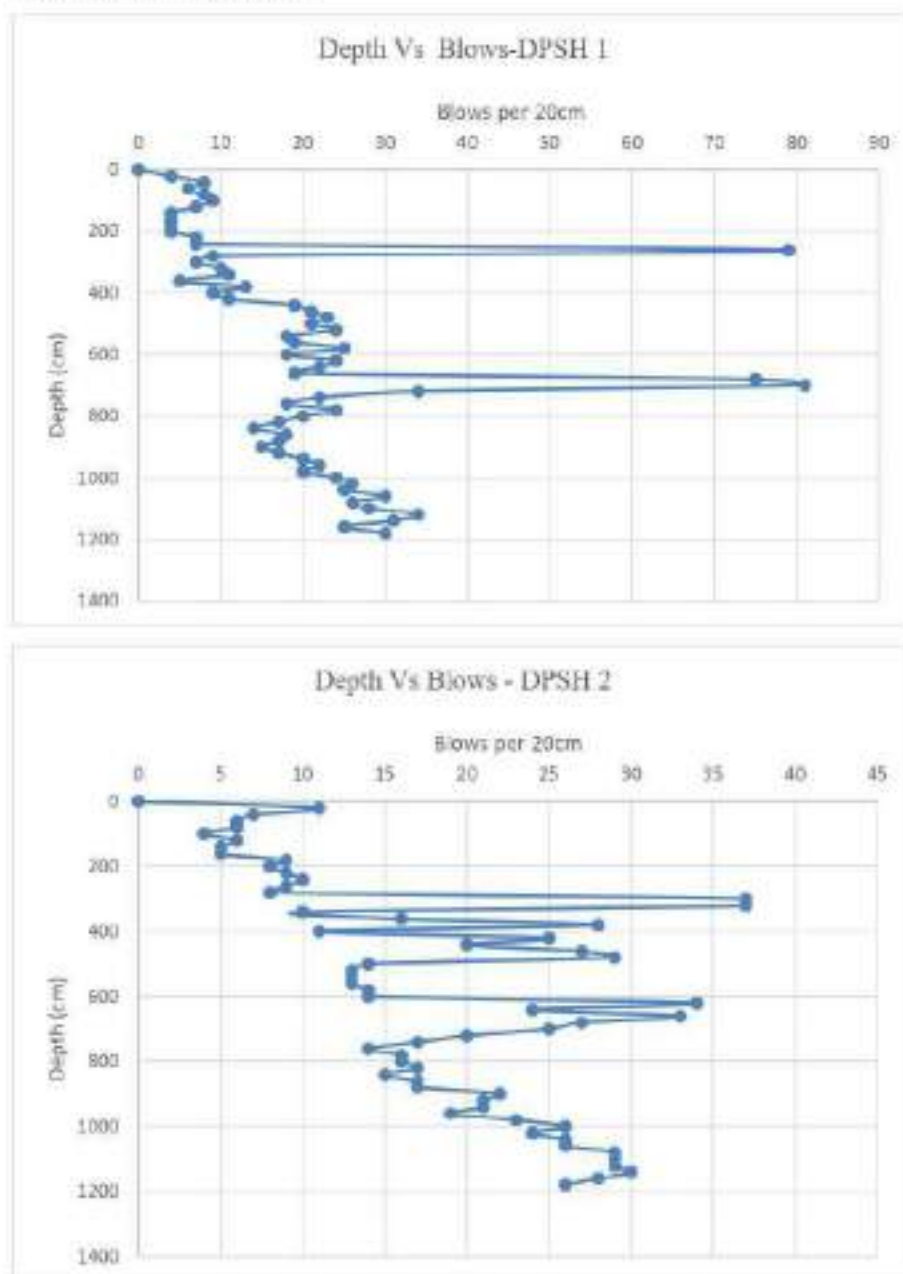


Figure 5-3 (a) -DPSH 1 & 2 Depth Vs Blow Count for Soko Matola Market site



II. Soweto Market Site

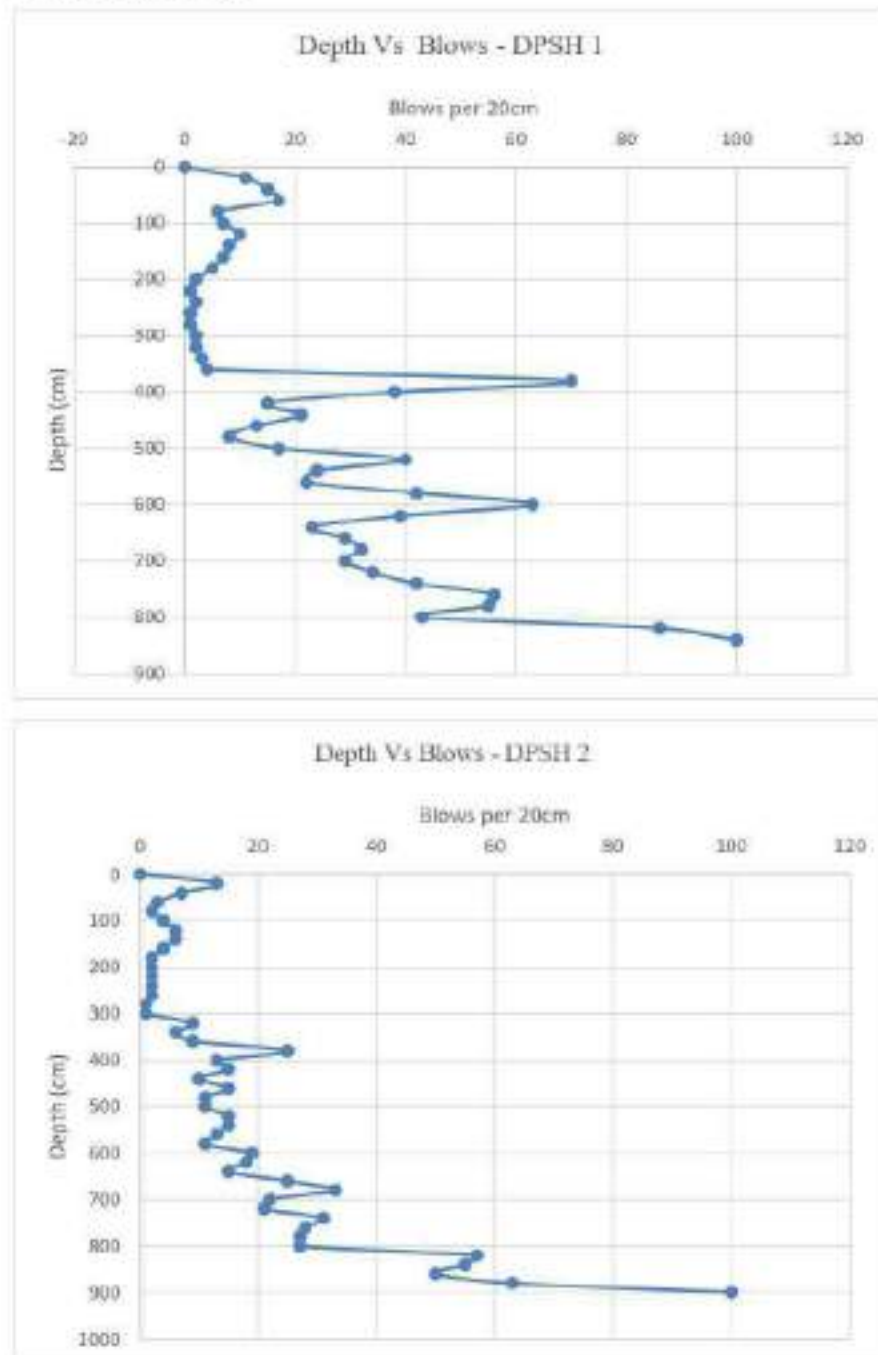


Figure 5-3 (b) –DPSH 1 & 2 Depth Vs Blow Count for Soweto Market site



iii. Central & Mini Bus Terminal Site

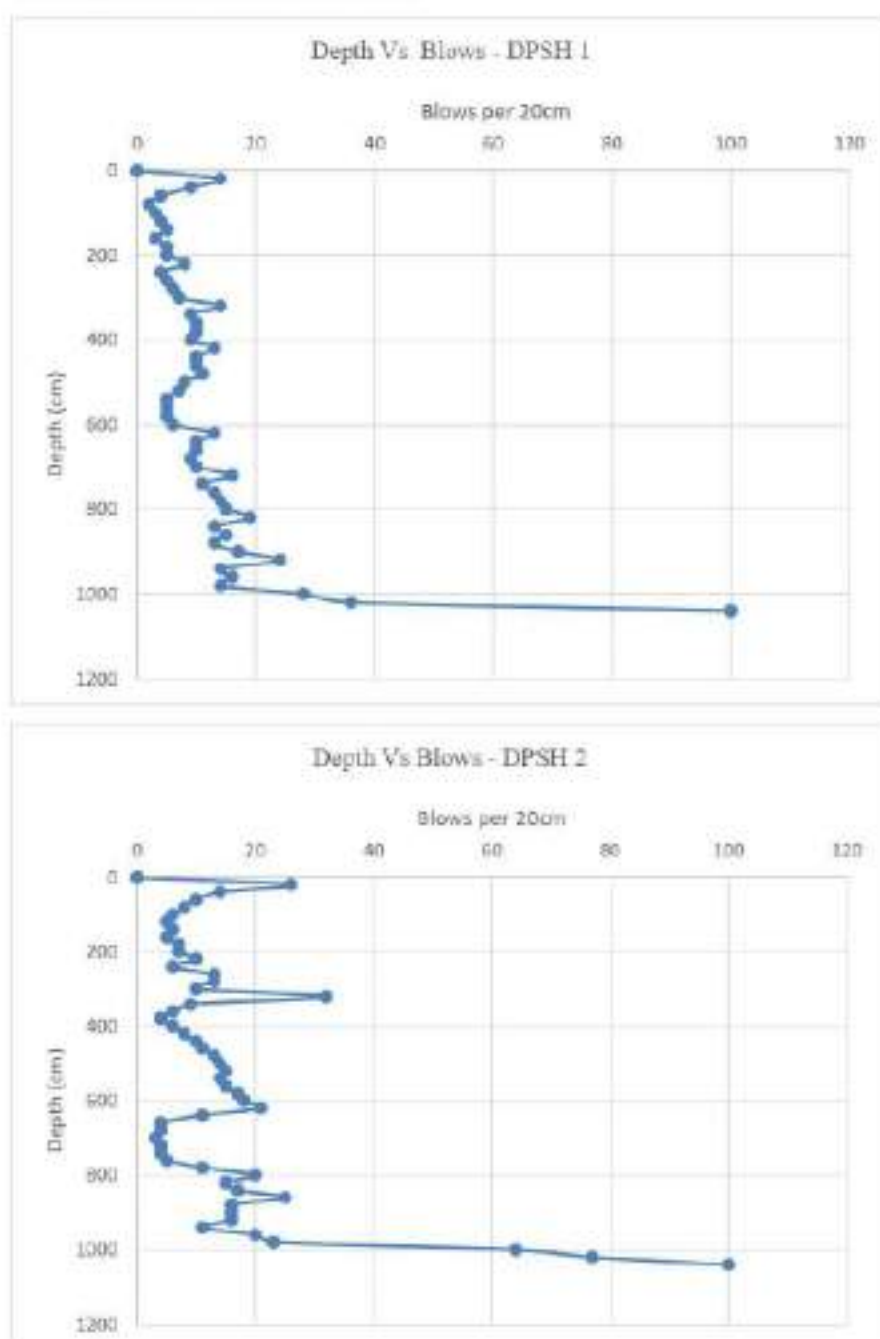
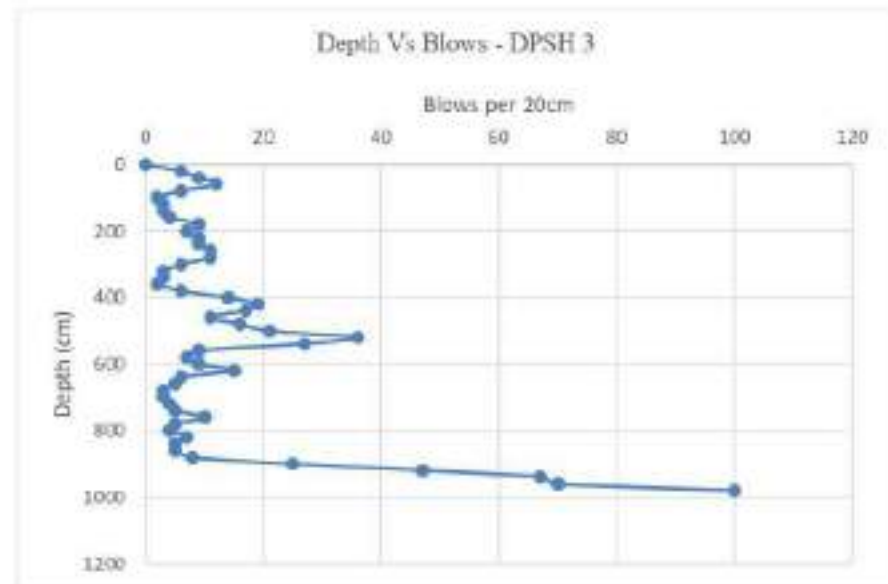


Figure 5-3 (c) –DPSH 1 & 2 Depth Vs Blow Count for Central & Mini Bus Terminal Site



site



iv. Grain & Fruit Market Site

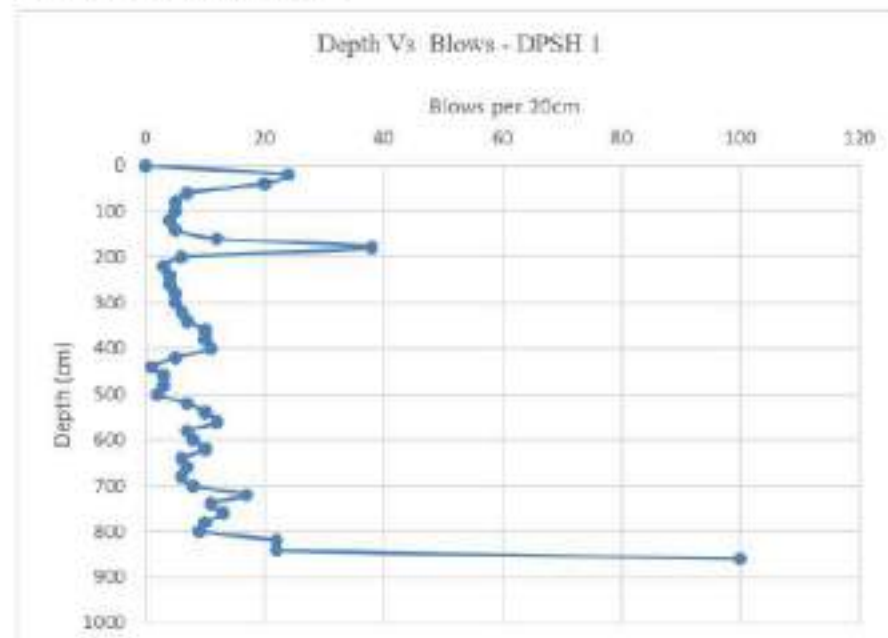


Figure 5-3 (d) –Depth Vs Blow CountDPSH1- Central & Mini Bus Terminal and DPSH 01 - Grain & Fruit Market DPSH-01 sites

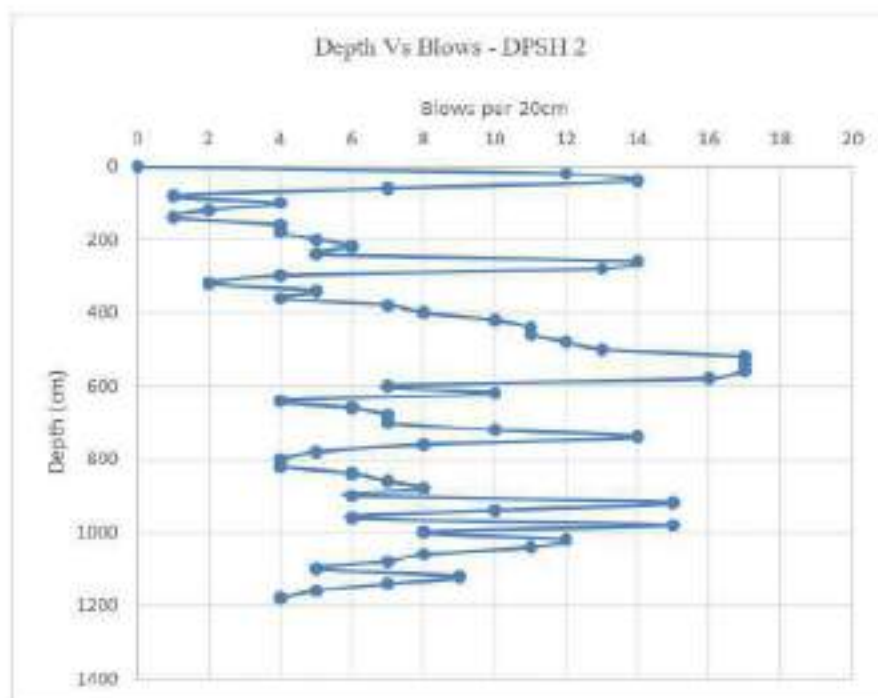


Figure 5-3 (e), Depth Vs Blow Count for Grain & Fruit Market site-DSH-02

5.6.3 Groundwater Observation

During the subsurface investigation, ground water table was not encountered across all locations.

5.7 Laboratory Test results

Laboratory tests were carried out in accordance with the British Standard Specifications (BS1377:1990). The tests carried out include: -

- Particle size distribution analysis
- Shear strength tests
- Chemical Tests on water samples

The discussion on the Laboratory test results is referring to the results presented in Appendix I of this report.



a) Sieve analysis

The particle size distribution indicates that the site soils are distributed across the sites as following;

Soko Matola Site- The results indicate the soils are uniformly distributed and consist of sandy clays of intermediate plasticity.

Soweto Market Site- The results indicate that the soils are also uniformly distributed and mainly consist of Sandy Silt. Gravels are also present at this site. The soils from this site indicated non plastic behavior.

Central & Mini Bus Terminal Site- The soils at this site indicated a uniform distribution with Gravelly Sand dominating close to the surface while Sandy Silt dominates at the bottom layers. The soils indicated non plasticity behavior.

Grain & Fruit Market Site- The Results indicate that the soils at this location are not uniformly distributed. However, the dominant soils indicated to be sandy silts.

The results are given in tabular and/or graphical form as appropriate in Appendix H of this report

b) Atterberg limits

With the exception of Soko Matola Site (which indicated the plasticity range of 15.7 – 18.6% - intermediate plasticity) the rest of the sites indicated non-plasticity behavior.

c) Shear Strength test

Direct shear test results for each site are summarized in the table 5-2.

Table 5-2, Summary of Direct Shear Test Results

Soil Type	Cohesion (kN/m ²)	Angle of Friction (Deg)
Soko Matola Site		
Sandy Clay	34 - 42	20 -29



Soweto Market site		
Sandy Silt	10 - 32	28 - 34
Sandy Gravel	15 - 32	43 - 45
Central and Mini Bus Terminal Site		
Sandy Silt	11 - 26	34 - 40
Sandy Gravel	4	48
Gravelly Sand	17 - 31	36 - 46
Grain and Fruit Market Site		
Sandy Silt	4 - 26	32 - 40
Sandy Gravel	21	37
Sandy Clay	26	28

d) Chemical Test

The chemical Tests for Soil samples from Soko Matola, Grain & fruit market, Soweto Market and Central and Mini Bus Stand are as summarized in table 5-3 below.

Table 5-3, Summary of chemical tests on soil samples

pH	Electrical Conductivity ($\mu\text{S}/\text{Cm}$)	Chlorides (mg/l)	Sulphates (mg/l)
Soko Matola Site			
6.70 – 7.72	165.2 - 645	19.5 – 75.0	15.3 - 59.0



pH	Electrical Conductivity ($\mu\text{S}/\text{Cm}$)	Chlorides (mg/l)	Sulphates (mg/l)
Soweto Market site			
7.39 - 7.55	204- 223	46.2- 50.0	32.1- 36.6
Central and Mini Bus Terminal Site			
7.54 – 7.87	94.3 – 172.1	24.18 – 42.1	18.0 – 29.0
Grain and Fruit Market Site			
7.2	130.6	15.3	12.5

According to BS 8500-1:2015+A2:2019 and DIN 4030, these values are non-aggressive. Therefore, no further recommendations are necessary for concrete cover to the reinforcement and ordinary Portland cement can be used in the construction under the site conditions.

6.6 Soil Parameters

The soil parameters have been assigned based on description of the strength in soil profile, index property test results, empirical relationships with DPSH test results, and on laboratory test results.

Based on the field and laboratory testing carried out during the investigations, the following design parameters are assigned to different strata as summarized in the following table:

Table 5-2, Soil Parameters

Soil Type	Unit Weight (KN/m^3)	Cohesion (KN/m^2)	Angle of friction (deg)
Soko Matola Site			



Soil Type	Unit Weight (KN/m ³)	Cohesion (KN/m ²)	Angle of friction (deg)
Sandy Clay	18	34	20
Soweto Market site			
Sandy Silt	17	10	28
Sandy Gravel	19	15	43
Central and Mini Bus Terminal Site			
Sandy Silt	17	11	34
Sandy Gravel	19	4	48
Gravelly Sand	18.5	0	36
Grain and Fruit Market Site			
Sandy Silt	17	4	32
Sandy Gravel	19	21	37
Sandy Clay	18	26	28

6.7 Allowable Soil Pressure

The allowable bearing pressure is a function of both soil properties, type and depth of particular foundation. Bearing Capacity Has been checked using both DPSH Blow counts and Laboratory test results. In both Cases Meyerhof Equations were used to determine bearing capacity.

Meyerhof (1951, 1963) proposed a bearing-capacity equation similar to that of Terzaghi but included a shape factor s_q with the depth term N_q . He also included depth factors d_q and inclination factors i_q for cases where the footing load is inclined from the vertical.

Meyerhof Equation for ultimate bearing capacity (vertical foundation loads) is given below: -

$$q_{ult} = cN_c s_c d_c + \bar{q}N_q s_q d_q + 0.5\gamma B'N_\gamma s_\gamma d_\gamma \quad \dots\dots\dots \text{(Using Laboratory soil test results)}$$

Where,

q_{ult} – Ultimate bearing capacity (kPa)

C – Cohesion (kPa)

B' = Foundation width (m)

\bar{q} = Effective Overburden pressure at the foundation depth (kPa)

γ – Unit weight of soil (kN/m³)

N_c, N_q, N_γ = Foundation factors

s_c, s_q, s_γ = shape factors

d_c, d_q, d_γ = Depth factors

The factor of safety of 3 to 5 is usually applied to the obtained ultimate bearing capacity to obtain allowable bearing Capacity.

Meyerhof Equation for the SPT Test allows the allowable bearing capacity of soil to be estimated using Dynamic Probing Super Heavy (DPSH) Test. Meyerhof's Equation for the bearing capacity using SPT Test is indicated below.

$$q_{all} = \left[\frac{N}{0.08} \right] * \left[\frac{(B+0.3)^2}{B} \right] * K_d \quad \text{for: } 0 \leq D \leq B \text{ and } B > 1.2\text{m}$$

Where: - q_{all} = Allowable bearing pressure for 25mm settlement, kN/m²

$K_d = 1 + 0.33(D/B) \leq 1.33$ [as suggested by Meyerhof (1965)]

N = Design N Value

B = Foundation width, m

D = Foundation depth, m

In this case, DPSH Blow counts have been used as an estimate of allowable bearing capacity

For the case of the water table being within the influence zone of the foundation, a correction should be made by groundwater correction factor C_w .

For computation of allowable bearing capacity; consideration has been made for shallow pad foundations and the results are indicated in the table below. The values in bracket represent bearing capacity from DPSH Blow counts.



Table 5-3, Computed Bearing Capacities (kN/m²) for pad foundation

Foundation Depth (m)	Pad Size (m)	Bearing Capacity (kN/m ²)
Soko Matola Site		
2	2x2	230 (200)
Soweto Market Site		
2	2x2	240(132)
Central and Mini Bus Terminal		
2	2x2	290(115)
Grain and Fruit Market		
2	2x2	180(115)

6.8 Conclusion and Recommendations

6.8.1 Conclusions

As a result of field activities carried out, the analysis of in-situ test results and laboratory soil test results, the following engineering conclusions and recommendations have been made:

- The geotechnical investigation has revealed that the site soils vary from 5 sites. The reader is advised to refer to chapter 5.7 of this report.
- The bearing capacities for the proposed locations are indicated in table 5-5. The bearing capacities from DPSH Test (which represent in situ soil conditions) seem to be significantly low for the Soweto, Central Bus Terminal & Grain/Fruit Market in Mbeya City.
- Water Table was not encountered across the sites.
- Sandy Silts/ Sands are collapsible especially when saturated. These soils have been encountered at Soweto Market, Central Bus Terminal, Grain/Fruit Market in Mbeya. It is recommended that the slopes be protected and No entry to the excavation should be allowed without slope protection for excavations beyond the depth of 1.2m
- Dewatering is not anticipated since Ground Water Table was not encountered.



- f) The excavated materials of non-plastic nature from the sites may be used as a backfill material.

6.8.2 Recommendations

Based on the conclusions made above the following recommendations are proposed during the implementation of the project:

- a) It is recommended that the weak soils be replaced with good gravel materials to an engineered fill of not less than 50cm, well compacted and placed in layers. This is necessary for three sites in Mbeya City, namely Soweto Market, Central & Mini Bus Terminal and Grain/ Fruit Market Sites.

This improved layer shall lie below the foundation base.

Annex 18: Construction Materials Investigation Report

4. Materials Investigations

4.1 Introduction

Natural gravels for selected layers and fill, and densely graded crushed stone base material will be required for the new pavement. The granular materials for pavement layers; both subbase and basecourse layers has to satisfy strength, durability, grading and atterberg limits requirements. For this project, the C1 subbase layer will require gravels of at least G20 quality material (with modified requirements).

Materials investigations have been carried out along the project road within economic haulage distance. The investigations include sources of natural granular material (borrow pits), sources of hard rock to be used for base material, surface treatment and concrete works (quarries). Also sources of sand for concrete works and water for construction were also investigated.

4.2 Fill Materials

It is recommended that the materials to be used for fill (of G3 class) or better for layers more than 300mm below the formation level, the fill material should be compacted to 90% BS-Heavy.

4.3 Gravel Sources

4.3.1 General Summary and Utilization

Five (5) gravel material sources in Mbeya City which are within economic haulage distances were visited. But only three gravel sources out of five were investigated during preliminary investigation phase for their suitability and estimation of available quantities. The remaining two gravel (Mbalizi & Iganzo) sources were not investigated because they were exhausted and closed by the authorities. Trial pits were excavated at each borrow pit to a depth of approximately 2.0m or to a hard stratum within the 2.0m depth. Visual assessment of the materials encountered was made and representative samples were taken for laboratory testing. The thickness of overburden and gravel seam was measured.

The following laboratory tests were performed on representative samples taken:

- Sieve Analysis
- Liquid limit LL



- Plastic limit PL
- Moisture Density Relationship
- 3 - Point CBR Test

A summary of laboratory test results on representative samples is presented in table 4-1 below.

Table 4-1, Laboratory Test Results on Representative Samples

BP No.	B/Pit Name	LOCATION	LL	LS	PI	PL	AASHTO class	GM	SWEL L	CBR (95 %)
1	TAZAMA	Inyala	NP	2.8	NP	NP	A-1-u	2.33	0.00	50.64
2	Igawilo	Igawilo	NP	0.9	NP	NP	A-1-u	2.40	0.00	51.30
3	Utengule	Utengule	39.8	10.1	20.7	19.1	A-2-6	2.28	0.00	16.15

From the test results of the representative samples taken for laboratory testing, the quality of materials can be summarized as follows:

- One (1) borrow pit has gravel with CBR greater than 15.0%.
- Two (2) borrow pit have gravel with CBR greater than 45.0%.

Regarding the test results above, all three potential sources for granular materials have been recommended for the construction of the fill and pavement layers. A summary of laboratory test results for gravel sources is shown in Appendix B.

Appraisal of the natural gravel borrow pits investigated is outlined below.

01. TAZAMA borrow pit

This is an existing borrow pit located near TAZAMA pumping station at Inyala village 16km from Mbeya City Centre, 200m off Iringa road. Overburden materials are silty and clay soils. The borrow pit is accessible and currently used to maintain the existing project roads as well as for construction of ongoing road projects and for other different fill purposes in Mbeya city. Suitable gravel materials are found from a depth of 0.8/1.0m to over 5m seen on hill cut face with an approximate quantity of over 300,000m³.



The source has the following properties; liquid limit of NP, linear shrinkage of 2.8, plasticity index of NP, grading modulus of 2.33, CBR% swell of 0.00, material's 4-days soaked CBR was 50.64% at 95% MDD.

The material can be classified as G45 quality material. The material from this borrow pit can be used for construction of fill, improved subgrade and pavement layers.

02. Igawilo borrow pit

This is an existing borrow pit located at Igawilo village along Kyela/Tukuyu road 13km from Mbeya city. The offset distance is around 600m from the main road to Kyela/Tukuyu.

The borrow pit is accessible and currently used to maintain the existing project roads as well as for construction of ongoing road projects and for other different fill purposes in Mbeya city.

Suitable gravel materials are found from a depth of 1.0 m to over 3.5m seen on hill cut face with an approximate quantity of over 300,000m³.

The source has the following properties; liquid limit of NP, linear shrinkage of 0.9%, plasticity index of NP, grading modulus of 2.40, CBR% swell of 0.00, material's 4-days soaked CBR was 51.30% at 95% MDD.

The material can be classified as G45 quality material. The material from this borrow pit can be used for construction of fill, improved subgrade and pavement layers.

0.3 Utengule borrow pit

This is an existing borrow pit located at Utengule/Idumbwi villages near Utengule resort about 300m off Mbalizi-Mkwajuni (Songwe District HQ) road. Overburden materials are silty soils. The borrow pit is accessible and currently used to maintain the Mbalizi-Mkwajuni and project roads as well as construction of ongoing projects in Mbeya city and Mbalizi district.

Suitable gravel materials are found from a depth of 0.5m to over 3.5m seen on hill cut face with an approximate quantity of over 250,000m³.

The source has the following properties; liquid limit of 39.80 %, linear shrinkage of 10.10%, plasticity index of 20.70%, grading modulus of 2.28, CBR% swell of 0.00, material's 4-days soaked CBR was 16.15% at 95% MDD.



The material can be classified as G15 quality material. The material from this borrow pit can be used for construction of fill and improved subgrade layers.

4.4 Borrow Pit Quantities and Utilization

The following paragraphs contain information of the natural gravel sources that may be available for the project. Although probable, the information provided have to be regarded as a summary of assumptions and verification testing will be necessary at the time of construction.

During construction, the following will be required:

- Confirm by means of onsite testing compliance of the in-situ materials in-between the indicated (tested) test pit positions.
- Identification and distinguishing within the borrow pit area between specific sourcing areas (of different quality).
- Borrowing and stockpiling operations have to be performed diligently. Unsuitable (overburden) material has to be avoided and only gravel that has been tested and that complies with requirements may be used.

The expected potential contribution of the borrow pits are tableted in Table 4-2 below. This potential will also be required to be confirmed by means of land availability on the said borrow pit and or land acquisition around the borrow pit areas.

Table 4-2, Materials availability

Borrow Pit Ref	Location	Status	CBR (%)	Material Class	Recommended Use	Total Expected Contribution (m ³)	
						Pavement	Fill/Selected
TAZAMA	Inyala	Existing	50.64	G45	Pavement	300,000+	
Igawilo	Igawilo	Existing	51.30	G45	Pavement	300,000+	
Utengule	Utengule	Existing	16.15	G15	Fill/Selected		250,000+
Total Quantity						600,000+	250,000+

The results of the material samples from three borrow pits investigated shows that there is a big difference in terms of quality for the first two borrow pits (TAZAMA & Igawilo-G45) than the later (Utengule-G15). during construction, the materials should be economically utilized, whenever the haulage distances will be economically justified, the good quality materials (G45)



from TAZAMA and Igawilo borrow pits should be used in construction of pavement layers instead of used in fill layers. On the other hand, G15 quality materials from Utengule borrow pit should be used in fill and improved subgrade layers.

4.5 Excavated Materials from Cut Sections

The excavated materials on the cut sections can be used for various constructions works. According to alignment laboratory test results, there are suitable subgrade materials which can be used for fill layers.

The materials have various properties; however, at this stage, the materials have been assessed for common fill that shows CBR % swell of < 2 and materials 4-days soaked CBR of more than 3% at 90% MDD. Tentatively, the material can be classified as G3 quality material, which can be used for construction of fill. During construction, the excavated materials should be stockpiled, retested and classified properly.

However, it was observed during site investigations that most of the subgrade materials in Mbeya City are volcanic tuff/Scoria or pumice type soil materials. As per PMDM, 1999; these materials often fail to meet pavement materials standards due to low particle strength and can give construction problems even when meeting the required standards for layer work. This is due to poor compactability caused by their open grain structure and a rough particle shape. It is suggested that the use of admixture of suitable fines can greatly improve workability, reduce the breaking of particles during construction and give acceptable results.

4.6 Hardstone Sources

4.6.1 General

Hard stone material will be required for production of aggregate for concrete works, production of base course pavement layer, and production of bituminous surfacing pavement layer.

Hard stone samples from the proposed quarry sites were taken for laboratory testing. The following test have been carried out at NORPLAN (T) LTD material testing laboratory in Dar es Salaam.

- Loss Angeles Abrasion
- Aggregate strength – 10% fines value (TFV), dry
- Aggregate strength – 10% fines value (TFV), wet



- Aggregate Crushing Value (ACV)
- Sodium Sulphate Soundness
- Bitumen Affinity
- Aggregates Impact Value
- Soluble salts Contents
- Water absorption

Laboratory test results for rock source are summarized in Appendix C.

01. Mbeya Quarry

This is an existing hard stone source/quarry located near TAZAMA pumping station at Inyala village 16km from Mbeya City Centre, 150m to 200m off Iringa road. Currently the quarry is fully operational and used for different constructional purposes within Mbeya city.

It is estimated that the source can yield more than 500,000m³ of crushed aggregates.

Samples taken from this source were tested for suitability in bituminous surfacing and concrete works that shows the following results.

• TFV (Dry)	228.3 kN
• TFV (Wet)	182.9 kN
• ACV	17.8%
• Aggregate Impact Value	14.3%
• Apparent specific gravity	2.60%
• Water absorption	0.74%
• Saturated surface dry specific gravity	2.57%
• Bulk specific gravity	2.2.54%

According to PMDM and Standard Specification for Road Works (SSRW-2000), the aggregates from this source meet the required properties for base course pavement layer, asphalt works and concrete works.

02. CICCQ Quarry

This is an existing hard stone source/quarry located at Mswiswi village in Mbalali district, about 30km from Mbeya City Centre, 700m RHS off Iringa road. Currently the quarry is fully operational and used for different constructional purposes within Mbeya city.



It is estimated that the source can yield more than 600,000m³ of crushed aggregates.

Samples taken from this source were tested for suitability in bituminous surfacing and concrete works that gave the following results.

• TFV (Dry)	196.7 kN
• TFV (Wet)	154.2 kN
• ACV	20.25%
• Aggregate Impact Value	18.1%
• Apparent specific gravity	2.533%
• Water absorption	1.965%
• Saturated surface dry specific gravity	2.461%
• Bulk specific gravity	2.413%

According to PMDM and Standard Specification for Road Works (SSRW-2000), the aggregates from this source meet the required properties for base course pavement layer, asphalt works and concrete works.

5.7 Sand Sources

5.7.1 General

Sources of sand were investigated by sampling and performing sieve analysis to ascertain their suitability. The grading of these sources, in comparison with grading envelope specified in BS 822 (1983) shall form the basis for recommending the use of these sources for concrete works. Summary of laboratory tests results for sand sources is shown in Appendix D. During site investigations, only one reliable source was identified and representative sample was taken for laboratory testing.

01. Mbalizi River sand source

This is an existing and the only reliable sand pit source located at Mbalizi river around 10km from Mbeya city. The source is easily accessed and is currently utilized in different ongoing projects in Mbalizi and Mbeya city. The material is light brown which is medium to coarse SAND.

A representative sample taken from this source was tested for particle size distribution to ascertain its suitability for usage in concrete works. The grading of this source falls within the



grading template specified in BS 822 (1983) and therefore recommended for use for concrete works. A summary of other laboratory test results is as follows;

- Bulk specific gravity.....2.333%
- Saturated surface dry specific gravity.....2.378%
- Apparent specific gravity..... 2.442%
- Water absorption..... 1.899%
- Sand equivalent98.60%
- Organic content.....1.10%

5.8 Water Sources

5.8.1 General

There are various permanent and seasonal rivers including water ponds that provide reliable sources of water for construction works especially during rain seasons. During site investigations, two reliable permanent water sources were identified. Representative samples were taken for laboratory testing. The laboratory water test was done in accordance to standard methods for the examination of water samples ASTM C 1602.

The following test have been carried out at University of Dar es Salaam water testing laboratory in Dar es Salaam.

- PH
- Total Alkalinity (mg/l as CaCO_3)
- Chlorides (mg/l)
- Electrical conductivity ($\mu\text{S}/\text{Cm}$)
- Total Dissolved Solids (mg/l)
- Total Hardness (mg/l as CaCO_3)
- Sulphate (mg/l)
- Magnesium (mg/l)
- Calcium (mg/l)
- Ammonium (mg/l)
- Bicarbonates (mg/l as CaCO_3)



Laboratory test results for water sources is shown in Appendix E.

Water Source - 1 (Mmita River)

Mmita River discharges water throughout the year. Currently, water from this river is used for domestic and construction purposes in Mbeya city. Mmita river can be easily be accessed at many locations within Mbeya city. Evaluation of water quality from this source was carried out and the results are summarized below.

Table 4-4, Summary of Water Results for Mmita River

S/No.	Parameters	Unit	Value	Specification for Concreting: Degree of Aggressiveness			
				DIN 4030			AASHTO
				Slight	Severe	Very Severe	Recommended
1	pH	-	7.33	6.5-5.5	5.5-4.5	<4.5	4.5-8.5
2	Electrical Conductivity	µS/Cm	574	N.M	N.M	N.M	N.M
3	Total Dissolved Solids	mg/l	290	N.M	N.M	N.M	N.M
4	Total Hardness	mg/l	130.0	N.M	N.M	N.M	N.M
5	Total Alkalinity	mg/l	115.0	N.M	N.M	N.M	N.M
6	Sulphates	mg/l	54.5	200-600	600-300	>3000	<1000
7	Chloride	mg/l	65.0	300-600	600-300	>3000	<500
8	Calcium	mg/l	23.7	N.M	N.M	N.M	N.M
9	Magnesium	mg/l	20.2	300-1000	1000-3000	>3000	N.M
10	Ammonium	mg/l	2.8	15-30	30-60	>60	N.M

According to limits set by DIN 4030, AASHTO and Tanzanian standards for various uses, the water source is suitable for drinking and construction works.

Water Source - 2 (Nzoye River)

Nzoye River discharges water throughout the year. Currently, water from this river is used for domestic and construction purposes in Mbeya city. Nzoye river can be easily be accessed at many locations within Mbeya city, the best location is at Nzoye across TANZAM highway.



Evaluation of water quality from this source was carried out and the results are summarized below. Water test results is attached in appendix E.


Table 4-5, Summary of Water Results for Nzoye River

S/No.	Parameters	Unit	Value	Specification for Concreting: Degree of Aggressiveness			
				DIN 4030			AASHTO
				Slight	Severe	Very Severe	Recommended
1	pH	-	7.45	6.5-5.5	5.5-4.5	<4.5	4.5-8.5
2	Electrical Conductivity	µS/Cm	312	N.M	N.M	N.M	N.M
3	Total Dissolved Solids	mg/l	160	N.M	N.M	N.M	N.M
4	Total Hardness	mg/l	70	N.M	N.M	N.M	N.M
5	Total Alkalinity	mg/l	64.5	N.M	N.M	N.M	N.M
6	Sulphates	mg/l	29.10	200-600	600-300	>3000	<1000
7	Chloride	mg/l	36.0	300-600	600-300	>3000	<500
8	Calcium	mg/l	12.6	N.M	N.M	N.M	N.M
9	Magnesium	mg/l	10.3	300-1000	1000-3000	>3000	N.M
10	Ammonium	mg/l	0.92	15-30	30-60	>60	N.M

According to limits set by DIN 4030, AASHTO and Tanzanian standards for various uses, the water source is suitable for drinking and construction works.

ANNEX 19: METEOROLOGICAL DATA FROM TMA

Form No. 725F



Data Delivery Report

In reply please quote:
Ref. No. CD 398/620/01

8th February 2023

Request No. (yymmm): 2023020802

Customer Name: NORPLAN TANZANIA LIMITED

Customer Address: P. O. Box 2820 DSM

Phone Number: +255 222780183

Email Address:

Description for data provided

Parameter(s) provided: - Monthly Rainfall (mm), Temperature (°C), Wind Speed (knots).

Station (s) provided: -

Morogoro:	- Latitude 06° 50'	Longitude 037° 39'	Elevation: 526m
Songwe:	- Latitude 08° 55'	Longitude 033° 16'	Elevation: 1264m
Songea:	- Latitude 10° 40'	Longitude 035° 35'	Elevation: 1036m
Sumbawanga:	- Latitude 07° 35'	Longitude 031° 36'	Elevation: 1824m

Period: January 2012 to December 2022

Data Gaps: No gaps

Attended by: - Jafari Chobo
Meteorologist

Verified by: - Dr. Sarah Osima
Ag. MCC

Customer's signature:

[Signature] 8/2/2023

Signature Date

[Signature] 8/2/2023

Signature for: DIRECTOR GENERAL
MINISTRY OF WORKS, TRANSPORT
AND COMMUNICATION
TANZANIA METEOROLOGICAL AUTHORITY
P. O. Box: 3056, DAR ES SALAAM

Thank you for using meteorological data.

Note: Information provided is for intended purpose only, should not be shared to the third part

All correspondences should be directed to:
Director General, Tanzania Meteorological Authority, Administration block, College of Informatics and Virtual Education, University of Dodoma, 1 CIVE Street, P.O. Box 27, 41218 Dodoma, Tel: + 255 36 2962610, Fax: +255 26 2962618, Email: met@tma.go.tz, Website: www.tma.go.tz

Effective Date: October 31, 2019

Revision No. 01



Jamhuri ya Muungano wa Tanzania
United Republic of Tanzania
Tanzania Meteorological Agency
Exchequer Receipt
Stakabadhi ya Malipo ya Serikali

Receipt No : 923032157462453
Received from : NORPLAN TANZANIA LIMITED
Amount : 998,400.00
Amount in Words : Nine Hundred Ninety-eight Thousand Four Hundred TZS And Zero Cent(s) Only
Outstanding Balance : 0.00

In respect of	Item Description(s)	Item Amount
: 142201611616 - Meteorological Service Charges - 2023011001		998,400.00

Total Billed Amount : 998,400.00 (TZS)

Bill Reference : 2023011001
Payment Control Number : 995750016103
Payment Date : 2023-02-01 15:34:11
Issued by : Jafari Chobo
Date Issued : 2023-02-08 16:35:02
Signature : 

Government Payment Gateway © 2017 All Rights Reserved (GePG)

