



Republic of Malawi



Blantyre Water Board



Blantyre City Council

MALAWI WATER AND SANITATION PROJECT-1 (MWSP-1)

**ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP) FOR THE
CONSTRUCTION OF PUBLIC SANITATION FACILITIES IN 10 PRIMARY
SCHOOLS IN BLANTYRE CITY (MALABADA, MATOPE, MBAYANI 1,
MBAYANI 2, MPINGWE, NAMATAPA, CHISOMBEZI, CHIMALIRO, SIGEREGE
AND KAPENI)**

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EXECUTIVE SUMMARY

1.0 INTRODUCTION

The Malawi Water and Sanitation Project (MWSP-1) is a Government of Malawi initiative, funded by the World Bank's International Development Association (IDA), and implemented through Blantyre Water Board (BWB) and Blantyre City Council (BCC). With a budget of \$148.5 million (GoM contributing \$3.5 million and IDA \$145 million), the project's objective is to increase access to improved water supply and sanitation services in Blantyre's metropolitan area while enhancing BWB's operational and financial efficiency. The project, running from March 2023 to March 2029, will achieve its goals through five components: water supply improvements, priority sanitation investments, institutional capacity strengthening, technical assistance and project management support, and contingency emergency response

The package will assist in increasing access to safely managed sanitation services through construction of 10 public sanitation facilities (toilets) and the incinerators. The facilities will benefit different primary schools within Blantyre City. The construction works of the PSFs will take 120 calendar days and will create employment opportunities for more than 250 local people of which 40% will be females.

2.0 NATURE AND SCOPE OF THE PROJECT

The nature and scope of works for the project include the construction of PSFs with cement whole blocks. The PSF will have disability friendly structures, urine diversion unit, and septic tank. Specific construction works will include land clearing and earthworks, excavations, construction of sub structure and superstructure roofing and finishing works.

3.0 CURRENT STATUS OF THE PROJECT

The project is on the preliminary stages where by the developer is on acquiring licences and permits, no any work has commenced on the site.

4.0 RATIONALE OF THE STUDY

The construction and operation of the proposed project activity requires an Environmental and Social (ES) assessment to be carried out in compliance with Environmental Management

Act of 2017. Blantyre Water Board was therefore tasked to prepare an Environmental and Social Management Plan to integrate environmental and social issues into the project.

5.0 JUSTIFICATION OF THE PROJECT

Access to adequate sanitation is a fundamental human right and a key driver of public health, education, and socio-economic development. The lack of appropriate sanitation facilities in schools has been linked to increased dropout rates, particularly among female students, and heightened vulnerability to waterborne diseases. By constructing 10 Public Sanitation Facilities (PSFs) in schools, this project aims to address these critical challenges, creating a safer and healthier learning environment for all students.

6.0 PROJECT OBJECTIVES

The objectives of the proposed construction of public sanitation facilities include but not limited to the following:

- To improve provision of sanitation services in schools within Blantyre City;
- To promote hygiene through utilization of the facilities; and
- To foster community long-term resilience against cholera and diseases that spread through poor disposal of human excreta.

7.0 OBJECTIVES OF ENVIRONMENTAL AND SOCIAL ASSESSMENT/ STUDY

The objective of this assessment was mainly to: 1) Outline the nature and scope of the proposed project area; 2) Outline the policy and legal framework governing the proposed activities; 3) Describe the existing biophysical and socio-economic environment; 4) Identify key environmental and social impacts and recommend measures to enhance positive impacts and reduce, mitigate or eliminate negative impacts; and 5) Propose an environmental and social management plan and monitoring plan to deal with the identified key environmental and social impacts.

8.0 METHODOLOGY FOR THE STUDY

The following activities were used to gather information for ESMP preparation:

- a) Field surveys to the project site.

- b) Review of policies, legislations, regulations and environmental standards for the ESMP preparation.
- c) Review of project site considerations and documents with information and data for the project area including maps and satellite images; and
- d) Interviews and consultations with key stakeholders.

9.0 SUMMARY OF IDENTIFIED IMPACTS

This ESMP focuses on identifying both positive and adverse impacts of the proposed construction and operation of public sanitation facilities. For positive impacts, the ESMP has provided enhancement measures and mitigation measures for negative impacts. Below is the summary of the anticipated impacts and measures to be undertaken.

10.0 POSITIVE IMPACTS

- i)* Access to improved sanitation facilities

Proposed enhancement measures

- Proper operation and maintenance of the sanitation facilities;
- Conduct regular inspection of the facilities detect overflows of septic tanks and repair them;
- Employ adequate staff and ensure that they provide appropriate work inputs (cleaning) through proper work schedule.

- ii)* Improved sanitation, hygiene and health of students

Proposed enhancement measures

- Continuous monitoring and evaluation will be vital on this phase as it will help to identify potential health risk, such as malfunctioning toilets or inadequate waste management.
- Regular health screening and hygiene education campaigns should be integrated into school programs to maximize health gains.

- iii)* Reduced incidences of water borne diseases

Proposed enhancement measures

- Carrying out regular maintenance of the sanitation facilities;

- Educate the students on important health issues, information and awareness campaigns can be carried out to promote proper hygiene practices, disease prevention and the importance of using the sanitation facility correctly.

iv) Creation of employment opportunities

Proposed enhancement measures

- Inform local communities of employment opportunities;
- Prioritize employment of local persons that qualify; Pay workers above the minimum wage and timely pay overtime; and
- Sensitize workers to save and invest during project implementation

11.0 NEGATIVE IMPACTS

i) Loss of vegetation

Proposed mitigation measures

- Limit vegetation clearance to demarcated areas only; and
- Plant trees to replace the affected ones.

ii) Increased risk of Soil erosion

Proposed mitigation measures:

- Install sediment traps on natural drainage paths at construction site;
- Restrict land clearing only to the proposed site for construction activities; and
- Compact and spray water on loose soil in all disturbed areas during construction phase

iii) Increased solid waste generation

Proposed Mitigation Measures

- Sell or recycle metal waste to tinsmiths or vendors for reuse or re-sale;
- Provide solid waste storage bins and prevent overfilling; and
- Dispose collected waste in an approved disposal site;

iv) Increased dust generation

Proposed mitigation measures

- Apply water to suppress dust being generated;
- Provide protective gear (dust masks) to workers and ensure that they wear them;
- Erect a barrier around the work sites where construction activities are taking place to break or reduce wind and dust movement.

v) Increased risk of injuries and accidents to workers

Proposed mitigation measures

- Develop a workplace safety policy
- Provide appropriate Personal Protective Equipment (PPEs) to construction workers and cleaners during operation and ensure that it is always used;
- Train First Aiders and provide fully stocked first aid kit; and
- Ensure contractor has insurance for its workers

vi) Increased risk of noise generation

Proposed Mitigation Measures

- Confine construction works to daylight hours unless permission is obtained from Supervision Committee; and
- Use well serviced machinery and equipment.

vii) Increased risk of spread of HIV and AIDS and STI's

Proposed mitigation measures

- Sensitize the surrounding community members and learners on the dangers of getting involved in pre-marital sex;
- Provide both male and female condoms to workers and learners;
- Develop and implement a workplace policy on HIV and AIDs; and
- Signing of code of conduct by workers

viii) Increased risk cases of Gender Based Violence (GVB), Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH)

Proposed Mitigation Measures

- Conduct sensitization and awareness campaigns to encourage communities report cases of GBV/SEA and SH and publicize GRM in place.
- Create a good work environment to allow workers to report cases of sexual harassment;
- Ensure that Code of Conduct is GBV/SEA/SH responsive signed, understood and applied by all contractor's staff;
- Enforce punitive and disciplinary measures, including dismissal from employment on any project workers involved in sexual abuse and harassment;

ix) Increased incidences of Child labour

Proposed Mitigation Measures

- Employ people who have genuine identification to prove that they are 18 years old and above;
- Employ workers through established recruitment agencies; and if they are from other districts make sure the office of District Commissioner is informed.
- Maintain an accurate staff register against which employee presence must be checked every day.
- Collaborate and network with District labour office in implementation of Labour Management plan.

12.0 CONCLUSION

The environmental and social impact assessment of the project shows that, overall, this project does not pose serious long-term impacts on the geology, topography, soils, water resources, biological resources and the social environment of the area. The general negative impact of the project in the area is moderate negative, amenable to mitigation and is insufficient by itself to prevent the implementation of the project whose positive spin offs far much outweigh the short-term negatives.

13.0 RECOMMENDATIONS

The Environmental and Social Management Plan (ESMP) in this report describes the environmental and social impacts of the project and outlines corresponding management measures that should be implemented to mitigate the potential adverse environmental impacts that have been identified. The project should therefore comply with all local laws and regulations, which seek to ensure that the project is implemented in an environmentally

sound manner while safeguarding the safety and health of the workers and the surrounding community. In this regard, it is recommended that:

- The project should adopt the recommendations advanced in this report;
- The Project must ensure that safety and health issues are given the necessary attention;
- The developer should implement the recommendations and mitigation measures advanced in the Environmental Management and Monitoring Plan.

ACKNOWLEDGEMENT

We wish to extend our appreciation to various government of Malawi ministries, departments, agencies, institutions, statutory bodies, organisations and individuals whose assistance, either directly or indirectly, made the Environmental and Social Management Plan (ESMP) for the project possible. We are particularly grateful to the assistance availed to us by the Malawi Environment Protection Agency (MEPA) and staff, especially for providing us with useful take off guidance in development of the ESMP.

We are thankful to the school management committees, local authorities and members of the various communities visited within Blantyre City for their diverse assistance during the field visits and consultation meetings.

Last but not least, we would like to thank all those who, in one way or another contributed to making this ESMP study successful.

LIST OF ACRONYMS AND ABBREVIATIONS

AC	Asbestos
AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretrovirals Therapy
ARV	Antiretrovirals
BCC	Blantyre City Council
BoQ	Bill of Quantities
BWB	Blantyre Water Board
C'ESMP	Contractors Environmental and Social Management Plan
CBD	Central Business District
CCAP	Church of Central African Presbyterian
CDC	Community Development Committee
CDRM	City Disaster Risk Management Committee
CDSS	Community Day Secondary School
CSO	Civil Society Organization
DHO	District Health Office
EHS	Environmental Health and Safety
EMA	Environment Management Act
ES	Environmental Screening
ESCOM	Electricity Supply Corporation of Malawi
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standard
GBV	Gender Based Violence
GIS	Geographical Information Systems
GoM	Government of Malawi
GPS	Geographical Position System
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
HHI	Henry Henderson Institute
HIV	Human Immunodeficiency Virus

HTC	HIV Testing and Counselling
IDA	International Development Association
IEC	Information, Education and communication
IFC	International Finance Corporation
IPAC	Infection Prevention and Control
LEA	Local Education Authority
LMP	Labour Management Plan
MBC	Malawi Broadcasting Corporation
MEPA	Malawi Environment Protection Authority
MIP	Malawi Implementation Plan
MOAM	Minibus Owners Association of Malawi
MoWS	Ministry of Water and Sanitation
MPS	Malawi Police Service
MRDRMP	Malawi Resilience Disaster Risk Management Plan
MS	Malawi Standard
MWSP-1	Malawi Water and Sanitation Project-1
NCIC	National Council Industry of Malawi
NGO	Non-Governmental Organisation
NRW	Non-Revenue Water
NSO	National Statistics Office
OHS	Occupational Health and Safety
PDO	Project Development Objective
PIU	Project Implementation Unit
PLHIV	People Living with Human Immune-Deficiency Virus
PPDA	Procurement and Disposal of Disposal Assets
PPE	Personal Protective Equipment
PSF	Public Sanitation Facilities
PST	Project Support Team
SDG	Sustainable Development Goals
SEA	Sexual Exploitation and Abuse
SH	Sexual Harassment
SME	Small Medium Enterprises
STIs	Sexually Transmitted Infections

TB	Tuberculosis
THA	Traditional Housing Authority
ToR	Terms of Reference
TV	Television
UNAIDS	Joint United Nations Programme on HIV/AIDS
VAT	Value Added Tax
VEC	Valued Environmental Component
WASH	Water, Sanitation and Hygiene
WB	World Bank
WDRM	Ward Disaster Risk Management Committee
WGRM	Workers Grievance Redress Mechanism

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CHAPTER 1 : INTRODUCTION AND BACKGROUND

This is an Environmental and Social Management Plan (ESMP) for the construction of Public Sanitation Facilities (PSFs) in 10 primary schools in Blantyre City.

This chapter provides background information on the proposed project locations, details of the project developer, objectives of the ESMP and the approach and methodology for the development of the ESMP.

1.1. Background Information

The Malawi Water and Sanitation Project (MWSP-1) is a Government of Malawi initiative, funded by the World Bank's International Development Association (IDA), and implemented through Blantyre Water Board (BWB) and Blantyre City Council (BCC). With a budget of \$148.5 million (GoM contributing \$3.5 million and IDA \$145 million), the project's objective is to increase access to improved water supply and sanitation services in Blantyre's metropolitan area while enhancing BWB's operational and financial efficiency. The project, running from March 2023 to March 2029, will achieve its goals through five components: water supply improvements, priority sanitation investments, institutional capacity strengthening, technical assistance and project management support, and contingency emergency response

The package will assist in increasing access to improved sanitation services through construction of 49 public sanitation facilities (toilets) and the incinerators. The facilities will benefit different primary schools within Blantyre City. The construction works of the PSFs will take 120 calendar days and will create employment opportunities for more than 250 local people of which 40% will be females.

This Environmental and Social Management Plan (ESMP) outlines measures to mitigate potential environmental and social impacts arising from the construction and operation of 49 Public Sanitation Facilities (PSFs) in schools. The goal is to enhance hygiene and sanitation standards while ensuring sustainable and socially responsible project implementation.

1.2. Nature and scope of the proposed project

The objectives of the proposed construction of public sanitation facilities include but not limited to the following: 1) to improve provision of sanitation services in schools within Blantyre City; 2) to promote hygiene through utilization of the facilities; and 3) to foster community long-term resilience against cholera and diseases that spread through poor disposal of human excreta.

The proposed facilities construction works will involve activities such as mobilization, site clearing and earthworks, excavation of trenches and column bases, casting concrete for strip foundation and column bases, construction of substructure walls and erection of stub columns, wet works for superstructure, roofing, carpentry and joinery (installation of doors, windows), plumbing and electrical installation, finishes (plastering, painting, glazing, ceilings, tiling), external works, foul water and drainage, and demobilization (good housekeeping).

In light of the proposed civil works at the mentioned sites, the MWSP-1 recognises the need to conduct an environmental and social assessment in order to identify anticipated positive and negative impacts and propose measures for managing these impacts. This will also assist the project to have social acceptance through the involvement of all relevant stakeholders. The report is a basis for managing, mitigating and monitoring the environmental and social impacts associated with the planning, construction, demobilisation, operation and maintenance phases of the proposed project.

1.3. Project proponent

The project proponent details are provided below.

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1.4. Nature and Scope of Work

This is an infrastructure development project and the scope of work for the project includes:

- i. Feasibility studies including topography and geotechnical studies;
- ii. Site survey and layout design;
- iii. Architectural and engineering designing;
- iv. Construction of temporary storage facility and accommodation;
- v. Site preparation, surveys and layout of structures;
- vi. Demolition of some existing infrastructures;
- vii. Construction of the main buildings and auxiliary structures;
- viii. Rehabilitation of existing infrastructures;
- ix. Construction of waste management structures and plumbing works;
- x. Connection of services (telephone, electricity and water);
- xi. Furnishing, fittings and installations of equipment;
- xii. Removal of temporary structures after construction works; and
- xiii. Maintenance works during operation phase.

1.5. Objectives of Environmental and Social Management Plan

The main objectives of the ESMP are as follows:

- 1) To determine the compatibility of the proposed project and evaluate the local environmental and social conditions of the areas;
- 2) To examine, in detail, likely adverse environmental and social aspects and associated impacts;
- 3) To provide appropriate enhancement and mitigation measures for the significant positive and negative impacts respectively; and
- 4) To develop an ESMP with mechanisms for monitoring and evaluating compliance and environmental performance.

1.6. Rationale of the Study

The operation of the proposed project activity requires an Environmental and Social Management Plan to be carried out in compliance with the regulatory requirements of the Environment Management Act (EMA) of 2017 that proposed development projects should be implemented in an environmentally and sustainable manner. EMA requires that an environmental assessment should be carried out for such projects. Blantyre Water Board was therefore asked to prepare an Environmental and Social Management Plan to integrate environmental and social issues into the project.

The need for ESMP was also triggered by environmental and social screening which was carried out at each and every site earmarked for construction of PSFs.

1.7. Justification for the Project

Access to adequate sanitation is a fundamental human right and a key driver of public health, education, and socio-economic development. The lack of appropriate sanitation facilities in schools has been linked to increased dropout rates, particularly among female students, and heightened vulnerability to waterborne diseases. By constructing 49 Public Sanitation Facilities (PSFs) in schools, this project aims to address these critical challenges, creating a safer and healthier learning environment for all students.

The project aligns with national education and health policies, contributing directly to Sustainable Development Goals (SDG) 3 (Good Health and Well-being), SDG 4 (Quality Education), and SDG 6 (Clean Water and Sanitation). Investing in school sanitation not only improves student health and academic performance but also fosters gender equity by removing barriers to education for girls. Furthermore, the initiative will serve as a model for community-wide hygiene improvement, reinforcing the importance of sustainable development and social inclusion.

1.8. Spatial Location and Size of Land

There are 10 sites in Blantyre City that have been earmarked for construction of PSFs. The name of each site is provided in the introduction section. In all the earmarked locations, the land size for the construction of the facilities ranges from 5m x 11m to 16m x 24m. All the sites are located in Blantyre City as follows:

1. Malabada Primary School, located in Malabada Ward under T/A Kapeni
2. Mbayani 1 Primary School, located in Mbayani Railway Line Ward in T/A Kapeni
3. Matope L.E.A. School, located in Ndirande Matope Ward under T/A Kapeni
4. Mbayani 2 L.E.A. School, located in Mbayani Railway Line Ward in T/A Kapeni
5. Kapeni L.E.A. School, located in Kapeni–Manje Ward in T/A Kapeni
6. Sigerege Primary School, located in Chilomoni Ward under T/A Kuntaja

7. Chimaliro Primary School, located in Chigumula Club Banana Ward under T/A Machinjiri
8. Chisombezi Primary School, located in Bangwe–Ntopwa Ward under T/A Machinjiri
9. Namatapa Primary School, located in Bangwe–Ntopwa Ward under T/A Machinjiri
10. Mpingwe Primary School, located in Mpingwe Ward under T/A Machinjiri

The land earmarked for the construction of PSFs belongs to the targeted schools and they were allocated by the Blantyre City Council (BCC). These are idle pieces of land which are suitable for the construction of the facilities to benefit the general public.

Figure 1 shows a topographic map for all the sites earmarked for the construction of PSFs in primary schools. Refer to Appendix 15 for aerial maps for all the sites earmarked for the construction of PSFs.

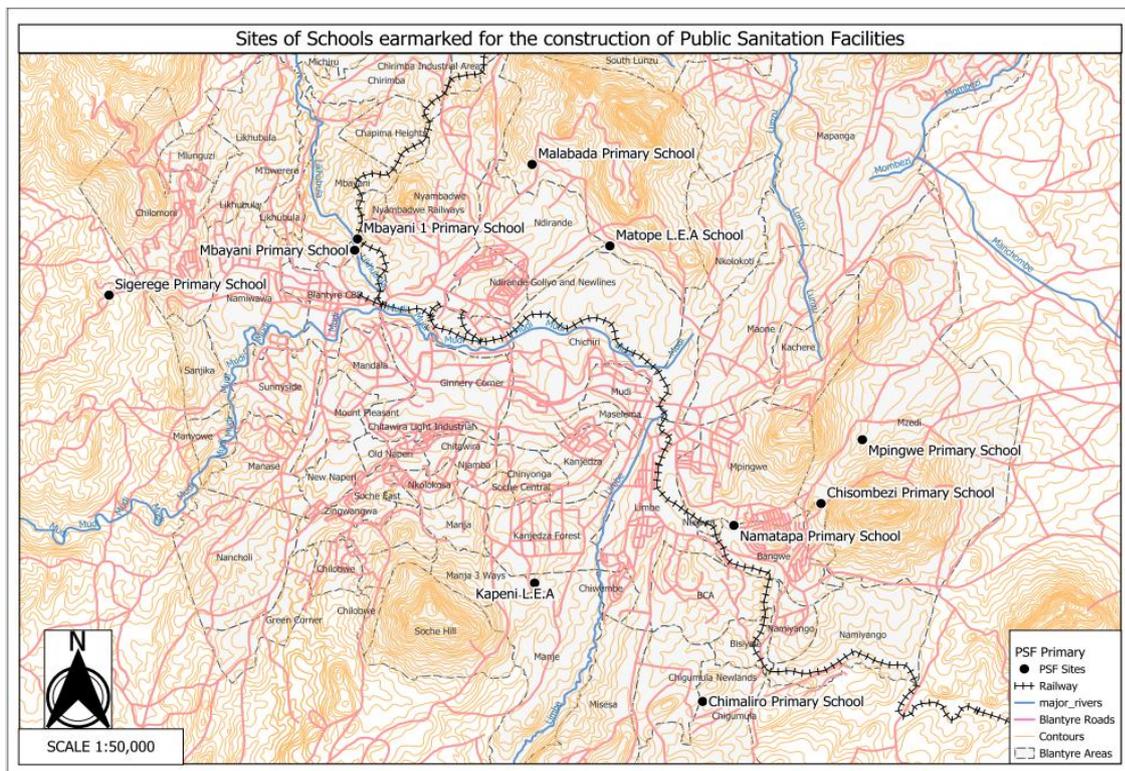


Figure 1: Map of Sites earmarked for the Construction of PSFs in Primary Schools

1.9. Approach and Methodology in the development of the ESMP

The general steps followed during the assessment were desk studies, physical inspection of the sites and surrounding areas, stakeholder consultations, reporting and documentation.

1.10. Desk Study

The sources of information included Environmental and Social Impact Assessment (ESIA) reports for similar projects and some selected national documents, policies, and pieces of legislation. Among the documents, the desk study looked at relevant project documents that include the Environmental and Social Screening (ESS) report, the project's Environmental and Social Management Framework (ESMF), BWB and BCC Geographical Information System (GIS) Database, and the World Bank Environmental and Social Framework

1.11. Field Visits

The study team conducted field surveys in the project sites between 9th to 15th July 2025 to observe and capture baseline data on the existing environment. During this period, studies were done to capture various information about the landscape and visual ecology (flora and fauna) and socio-economic environment, among others. These visits assisted in identifying and assessing environmental and social impacts that might occur because of the project implementation. Refer to Appendix 1B for pictures of the field visits

1.12. Stakeholder Consultations

Stakeholder participation involved proactive engagement with key stakeholders located within the project impact area, as well as selected community-based structures. Key participants included headteachers, teachers, staff from Blantyre City Council (BCC), Community Development Committee (CDC) members, and local community members.

The primary objective of the consultations was to disseminate information about the proposed project activities and to gather stakeholders' views, concerns, and suggestions. This inclusive process aimed to ensure that the project design, implementation, and operational phases are responsive to local needs, enhance community ownership, and mitigate potential social and environmental risks. Refer to Appendix 9: List of Stakeholders consulted in schools during the ESMP consultations. Table ...presence summary of issues raised from each site and their mitigation measures.

Table 1. summary of stakeholder engagement

No.	NAME OF PSF SITE	ISSUES RAISED	FEEDBACK
1.	Matope Primary School	<ul style="list-style-type: none"> • Having a toilet with menstrual hygiene facility, female learners will be encouraged to use the school PSF, reducing the need to go home • The toilets will improve menstrual hygiene for female learners. • The PSF will improve the overall hygiene at the school. • Learners maybe anxious and excited to visit the construction site which may lead to safety threat and disturb learner's classes attendance. • The construction of PSF will reduce congestion in toilets both for learners and staff. 	<ul style="list-style-type: none"> • The ESMP will cover issues of community health and safety which will ensure that the construction sites have hoarding fence, access is restricted and safety signs are installed in both local and English languages.
2.	Malabada Primary School	<ul style="list-style-type: none"> • The construction of PSF will reduce congestion in toilets both for learners and staff toilet. • Learners in upside classes will easily have access to the toilets. • There will be environmental degradation as the proposed site for the construction of PSF was designated as a tree planting site. • The construction activities are expected to cause noise and air 	<ul style="list-style-type: none"> • The project will develop ESMP and C'ESMP to ensure that all negative impacts are mitigated and positive impacts are enhanced before the commencement of construction works. • The BCC/PIU safeguards team will conduct inspections to ensure that

No.	NAME OF PSF SITE	ISSUES RAISED	FEEDBACK
		pollution which may disrupt classes.	measures in the ESMP are adhered to
3.	Kapeni Primary School	<ul style="list-style-type: none"> • Improved hygiene will help prevent spread of diseases. • There will be reduced congestion of learners at the toilet. • Drop off of adolescent learners due poor menstrual hygiene facilities will decrease • Use of flash toilets will escalate the water bills which is already a challenge. • Vandalism of the facility is expected since will have advanced facilities, 	<ul style="list-style-type: none"> • The school management need to work together with the community policing team to ensure that strategies are put in place on safety of the facility. • On water bills, consultation are being made between institutions responsible on how the water bills will be managed.
4.	Sigerege Primary School	<ul style="list-style-type: none"> • The available toilets are in bad state which compromises hygiene • Learners will be returning to class on time during break due to reduced congestion at the toilet • Female learner's enrollment will improve as those at adolescent stage fell shy to use the same toilets with little girls during menstrual period. • In a scenario where trenches are left open, learners safety is at 	<ul style="list-style-type: none"> • The ESMP will cover issues of community health and safety which will ensure that the construction sites have hoarding fence, access is restricted and safety signs are installed in both local and English language

No.	NAME OF PSF SITE	ISSUES RAISED	FEEDBACK
		stake	
5.	Mpingwe Primary School	<ul style="list-style-type: none"> • There is a need to enhance security for safety of contractors' materials during construction. • The school has limited available space for the construction of new toilets. • The school has 4,000 learners and few toilets which lead to congestion of learners using the toilets hence the project will help reduce the ratio 	<ul style="list-style-type: none"> • The school management need to work together with the community policing team to ensure that strategies are put in place on safety of the facility. • The PSF design will be modified based on the available space on site.
6.	Chisombezi Primary School	<ul style="list-style-type: none"> • The school enrollment remains high hence the new PSF will reduce the congestion of learners at the toilet. • Inclusion of a toilet facility which is disability friendly will help students living with disability attend classes freely. • The PSF will improve the appearance of school premises. • The construction of PSF will reduce space at the school campus. • The facility may attract theft cases leading to vandalism 	<ul style="list-style-type: none"> • The school management need to work together with the community policing team to ensure that strategies are put in place on safety of the facility. • The design will ensure that space is utilized efficiently to create space for future developments.
7.	Chimaliro Primary School	<ul style="list-style-type: none"> • Hygiene is expected to improve as the pit latrines produce bad 	<ul style="list-style-type: none"> • Civic educate learners and staff on proper use of the

No.	NAME OF PSF SITE	ISSUES RAISED	FEEDBACK
		<p>odour.</p> <ul style="list-style-type: none"> • The new toilet design will make facility management and cleaning easier and more efficient. • The new toilets will also enhance the overall appearance and environment of the schools. • Improved dignity is expected as user's privacy will be enhanced. • Damages/Blockages are expected as some user are not conversant with the use of flash toilets. • Early pregnancies may increase due to increased cases of SEA/SH 	<p>flash toilets.</p> <ul style="list-style-type: none"> • The school management need to work together with the community policing team to ensure that strategies are put in place on safety of the facility. • The workers will sign Code of Conduct to ensure that workers adhere to the do' and don'ts.
8.	Mbayani 1 Primary School	<ul style="list-style-type: none"> • Management is grateful for the project and will support all the works in our capacity. • The school currently serve 5000 learners; the management is willing to help ensure that safety of learners' is prioritized during project implementation. • The school management is committed to work with parents to support and supervise learners throughout construction period. • Concern over the road access for 	<ul style="list-style-type: none"> • The client is grateful for the anticipated support that will enhance sustainability, • The contractor with help from school management will find ways to ensure that access path is available for safe transportation of construction materials. • The CGRC will ensure that there is a

No.	NAME OF PSF SITE	ISSUES RAISED	FEEDBACK
		the contractor to reach the construction site as the route is congested.	representation of PTA member.
9.	Mbayani 2 Primary School	<ul style="list-style-type: none"> • Management is grateful for the project and will support all the workers in our capacity. • In the past we have had negative experience with contractors whereby they incomplete government construction projects, untimely completion and project abandonment. • There is a need for school to have a brick wall fence to boost security. • Delays by the contractor to finish the assigned works in time frustrates the community hence need to stick to the datelines 	<ul style="list-style-type: none"> • MWSP-1 focus is on the construction of PSF, for the construction of a fence the school management may consult other potential donors. • The PST will ensure that the contractor do the work with due diligence to meet all the datelines accordingly. • Funds are available for the project and there will be no any diversion of funds which is an assurance that the project will not be abandoned.
10.	Namatapa Primary School	<ul style="list-style-type: none"> • There is a shortage of toilets for both staff and learners hence urgent need for the improved sanitation facilities. • Project is expected to significantly improve current hygiene conditions as some learners prefer open defecation due to poor condition of toilets. • The school has an active existing committee that address learners' 	<ul style="list-style-type: none"> • The project has GRM mechanism that professionally handles GBV, SEA and sexual abuse issues. In this regard, there will be a well-established grievance committee to handle all grievances related to implementation of the MWSP-1.

No.	NAME OF PSF SITE	ISSUES RAISED	FEEDBACK
		<p>welfare, focusing on GBV, SEA, and sexual abuse that will support project implementation.</p> <ul style="list-style-type: none"> • Severe shortage of toilets influences most learners to use inappropriate outdoor. • There is a need for the contractor to ensure that storage of construction materials is secure. 	<ul style="list-style-type: none"> • The contractor will engage the community policing team and hire a security guard to ensure that materials are stored safely

1.13. Potential users of the ESMP

The ESMP shall be used by various stakeholders who are involved in planning, implementation, management and monitoring of project activities such as contractors, BWB, BCC, MEPA, Blantyre District Councils, National Water Resources Authority, School management committee and the public. The plan contains policies and procedure to be adhered to, analysis of potential environmental and social impacts and suggested mitigation measures at various stage of implementing the project activities.

CHAPTER 2 : PROJECT DESCRIPTION

This chapter provides an overview of the project's specifics, focusing on the project phases, to enhance comprehension of the level of detail and the planning or design choices at hand. Additionally, it describes the tasks and actions involved in executing the project.

2.1. Main activities of the project

The project execution has been divided into five primary segments, which are planning and design, construction, demobilization, operation, and maintenance stages. The activities to be carried out within each of these phases are detailed as follows.

2.1.1. Planning and design phase

This marks the initial phase of the project, where we will comprehensively outline various project components. These include activities like land surveying, technical feasibility assessments, environmental impact studies, the development of technical drawings, resource procurement, and the initiation of tendering processes for the project. In addition, this phase encompasses the development of construction designs, the acquisition of necessary authorizations and approvals from relevant authorities, initial consultations, and land use planning.

2.1.2. Construction phase

The main activities of this phase of the project are contractor mobilization, site clearing and earthworks, setting out, excavation of trenches, casting concrete for strip foundation, construction of substructure walls, backfilling and compaction for substructure blockwork, casting concrete for slab, construction of superstructure walls, ring beam construction, roofing, carpentry and joinery (installation of doors, windows), plumbing, installation of solar powered water reticulated systems, finishes (plastering, painting, glazing, tiling), external works, foul water and drainage, and demobilization (good housekeeping). The following sections provide insight on some of the activities that shall occur in the construction phase:

a) Contractor Mobilization: The initial phase of construction involves contractor mobilization, which serves as the first step before commencing any work on the site. During this phase, the contractor will undertake various tasks, which may include the following and any additional activities they find necessary:

- Locating and setting up secure storage facilities or buildings for construction materials.
- Identifying and establishing restroom facilities for the workers.
- Acquiring health, safety, social, and environmental resources, including Personal Protective Equipment (PPE), first aid kits, fire extinguishers, flashlights, and other relevant items.
- Identifying a water supply source for both the contractor's staff and construction purposes, encompassing drinking water, construction needs, and dust control.
- Locating sources for construction materials, particularly river sand and coarse aggregate.

b). Site clearing and earthworks: The first step in preparing the proposed project sites for construction is site clearing, marking the initial groundwork phase. This will involve manual labor and is intended to prepare the site for construction activities. The tasks planned for site preparation include:

- Demolition of some existing toilets at Sigerege Primary School and a non-functional toilet at Mbayani 1 primary school to free space for the new structures.
- Clearing the site of any existing vegetation within the area designated for the structure's construction.

- Leveling and shaping the land to meet the required specifications, which will involve removing some topsoil.
 - If necessary, removing excess soil, stones, and rocks from the site.
 - Installing temporary fencing, serving as a protective barrier, around each construction site during the building phase.
- c). Setting Out:** This stage involves accurately marking the boundaries, layout, and dimensions of the proposed structures on the ground based on the architectural and engineering drawings. The activity ensures that the construction aligns with the approved design. Surveying equipment and pegs will be used to transfer design dimensions to the site. Proper setting out minimizes errors that could result in structural instability or design non-compliance.
- d). Excavation for Trenches:** Excavation works will be carried out to create trenches for strip foundations and drainage. This process involves removing soil to the required depth and width, ensuring stability of the excavated sides to prevent collapse. Excavated soil will be stockpiled for reuse during backfilling.
- e). Casting concrete for strip foundation:** Once excavation is complete, concrete will be poured into the foundation trenches to create a stable base for the structure. This will include mixing, placing, and curing of concrete. Quality control measures will be observed to ensure structural integrity.
- f). Construction of substructure walls:** Tasks related to the construction of substructure walls will include:
- Laying block work for substructure walls, with brick force wire every second course.
 - Ensuring proper alignment and levelness during construction.
 - Backfilling and compacting the area around the substructure walls.
- g). Casting concrete for slab:** Concrete slab casting involves formwork, reinforcement placement, mixing, pouring, leveling, and curing of concrete. Vibrators will be used to ensure compaction of the concrete.
- h). Construction of superstructure walls:** Tasks related to the construction of superstructure walls will include:

- Laying block work for superstructure walls, with brick force wire every third course.
- Ensuring proper alignment and levelness during construction.
- Ring beam construction.

i) Roof installation: Roof installation shall involve assembling and fixing of the roof onto the structure of the sanitation facility buildings to provide protection against weather elements, such as sunlight, wind, and rainfall. These activities will include:

- Constructing the roof's supporting framework, which will include rafters, trusses, and sheathing, to create a stable base for the roofing materials.
- Fixing the ridge and hip sections of the roof where two sloping sections meet.
- Fixing fascia boards along the roof's edge and installing gutters and downspouts for proper drainage.
- Installing some translucent sheets to allow natural light into the toilets.

j). Metal work, Carpentry and joinery (installation of doors, windows): The works during this stage shall involve all timber and metal fixtures of the buildings including doors, windows and more. Here are some of the key works that shall be undertaken during this stage:

- Fixing metal and timber door frames to door openings.
- Fixing doors to door frames.

k). Plumbing installations: The works during this stage shall involve installation of plumbing pipes and fixtures. Here are some of the key works that shall be undertaken during this stage:

- Installation of PVC pipes for water supply, drainage, and foul water.
- Installation of plumbing fixtures like sinks, faucets, water closets, and showers.

l). Installation of solar powered water reticulated systems: This activity will provide reliable and sustainable water supply to the schools through the use of solar energy. The works will vary depending on the existing water infrastructure at each school:

- Schools with existing boreholes: The boreholes will be reworked and upgraded to operate with solar-powered submersible pumps. This will automate water abstraction, reduce manual pumping, and enhance efficiency.
- Schools without boreholes: New boreholes will be drilled and equipped with solar-powered submersible pumps.

In both cases, solar panels, storage tanks, and reticulation networks will be installed to distribute water to toilets, handwashing facilities, and other designated points. The system will improve access to clean water, promote hygiene, and reduce reliance on unreliable grid electricity or manual water pumping.

m). Finishes (plastering, painting, glazing, tiling): This shall involve all final touches to the building's interior and exterior. Here are the key aspects of building finishes:

- Interior and exterior plaster shall be applied to walls and concrete to create a smooth and even surface.
- Interior and exterior walls shall be primed and painted with appropriate paint and finishes.
- Glasses shall be installed in window frames.
- Tiles shall be fitted to the floor and walls and shall be properly grouted and sealed to prevent water damage and ensure durability.

n). External works, foul water, and drainage: This shall involve:

- Planting trees, shrubs, and grass.
- Installing outdoor lighting fixtures for safety and ambiance including security lighting.
- Establishing connections for water supply and electricity.

- Implementing systems to manage storm water runoff, which may include but not limited to drainage channels.
- Construction of septic tanks and soak away pits ensuring proper filtration and drainage of effluent into the soil.
- Managing surface water runoff from roofs and other surfaces to prevent water accumulation and erosion. This will involve installation of gutters, down pipes and drainage channels.

o). Demobilization (good housekeeping): Demobilization refers to the stage at which the construction works of the project shall be wound down with the contractor readying to leave the site. This shall involve the removal of equipment, personnel, and temporary facilities. Here are some of the activities that shall be undertaken during this stage:

- Removal of construction equipment, machinery, and tools from the site.
- Demobilization of temporary staff, sub-contractors, and workers.
- Disassembly of temporary structures like site offices and storage units.
- Cleaning and Organizing the site, ensuring that the site is free of debris and any loose tool.
- Disposal of construction waste and ensuring that hazardous materials are disposed of properly following environmental guidelines.

p). Construction materials and equipment: The main raw materials for construction are cement hollow blocks (400mm x 200mm x 200mm), coarse aggregate, river sand, cement, timber, steel, iron & translucent sheets, PVC pipes, solar panels, water storage tank and submersible pump. A summary of construction materials and equipment for the construction phase is provided in Table 1.

Table 2: Construction Materials and Equipment

Item No.	Raw Material	Source	Mode of Delivery
1	Sand	Nearby rivers or streams approved	Road Transport

		by local authorities	
2	General building materials such as cement hollow blocks, cement, aggregates, PVC pipes, water storage tank, iron & translucent sheets and solar panels	Local approved suppliers	Road Transport
3	Diesel (for the operation of the generator and machinery)	Local approved suppliers	Road Transport
4	Construction Water	Existing water from nearby sources stored in tanks.	Tanks
5	Equipment (Tippers, scaffolding materials, light passenger vehicles, Engine generator and hand tools)	Contractor	Road Transport

2.1.3. Operation and maintenance phase

Upon completion of construction, the sanitation facilities in primary schools will be handed over for use by learners, teachers, and supporting staff. These facilities are expected to significantly improve hygiene and sanitation standards within the school environment, thereby contributing to better health and learning outcomes.

During this phase, school management committees and Parent-Teacher Associations (PTAs) will play a central role in overseeing the proper use and upkeep of the facilities. Regular

hygiene promotion sessions will be conducted for learners to instill a sense of responsibility in maintaining cleanliness and preventing misuse.

Routine maintenance will include tasks such as cleaning, minor repairs, desludging (where applicable), and prompt reporting of faults or damages. The school administration will ensure that an Operation and Maintenance plan is in place.

In addition, the existing Grievance Redress Mechanism (GRM) will remain operational, enabling teachers, learners, and parents to raise concerns regarding the sanitation facilities. This approach promotes accountability and fosters community participation in safeguarding the infrastructure.

2.1.4. Environmental Planning and Design

The Environmental Planning and Design segment emphasizes the environmental and social factors that must be taken into account in the detailed project design phase. Integrating these factors into the detailed designs is essential to minimize identified negative effects and enhance positive outcomes. Environmental planning and design are necessary for addressing concerns related to natural hazards, including earthworks, floods, sourcing and handling construction materials, safety, public health, labor, and rehabilitation/revegetation aspects.

2.2. Safety and Risk Reduction Measures

Standard precautions related to environmental health and safety procedures must be taken seriously. The contractor will be responsible for ensuring these precautions are followed diligently to prevent accidents. Before commencing work, the chosen contractor shall be required to submit a Contractors Environmental and Social Management Plan to the project proponent for approval.

Through public consultations with key stakeholders in the project areas, it was revealed that vandalism poses a significant risk to the smooth operation of these facilities. To curb this vandalism, the following risk reduction measures will be employed:

- The selection of proposed sites was done in collaboration with community-based structures such as market committees, health centre management committees,

community development committee and local leadership e.g. Councillors, District Health Office, and block leaders. This ensures ownership of the project during both construction and operation/maintenance phases.

- Some of the facilities especially in markets will be let out to private operators who shall be responsible for security, repair, and maintenance of the facilities.
- The facilities in health centres will be under the care of the DHO and health centre In-Charges including the health centre management committees and their respective leaderships.

2.3. Labour management

The proposed project is anticipated to generate employment opportunities within the project areas. This could serve as a learning platform for the local residents, enabling them to acquire specific construction skills related to building sanitation facilities. It is advised that the contractor employs local labor from within the surrounding communities of the proposed sites providing equal employment opportunities to men and women (60% and 40%). At minimum 30% of entire labour force shall comply with local labour where much of the unskilled labour shall be sourced from the communities within the project sites. For less complicated assignments, unskilled local labor should be provided with brief on-the-job training. In addition, all employees should have a duly signed contract with the employer and a Code of Conduct before commencement of the work. The contractor shall ensure that local community, the District Labour Office, and Local/ block leaders are involved in the recruitment of workers. Specific details regarding labor management are contained in Appendix 8.

2.4. Water Supply

The contractor shall have to carefully assess the water supply needed for construction to prevent any disruption to the water requirements of the local residents and animals in the area when necessary. The main water sources in the project sites include piped water, boreholes, wells, and streams. The contractor will adhere to all appropriate procedures to obtain water from these sources for construction purposes. For instance, water abstraction from rivers and groundwater need to be permitted. If the water is obtained from community water supply (community borehole or tap), there has to be a formal agreement with the community in

terms of payment of bills for the water or contribution for repair and maintenance of the water infrastructure.

2.5. Energy

Throughout the project's construction phase, energy requirements will be satisfied by utilizing generators in regions without access to the electrical grid. In areas where grid power is accessible, the contractor can arrange for its use, provided that all required safety measures and approvals are in place. The contractor will liaise with the owners of existing energy sources or provide their own sources based on the prevailing circumstances, all while ensuring that the decision doesn't compromise or present any environmental or social risks.

2.6. Waste Management

During construction of PSFs there will be generation of both solid waste and liquid waste. These will have to be managed properly so as to protect soil and water contamination. Explained below are the waste likely to be generated from the project.

2.7. Solid waste

Solid waste would be generated from project construction materials such empty bags of cement, rubles (dry concrete), form work (shutter boards), plastics, empty bottles and refuse from food stuffs such as banana peels, sugarcane, groundnuts that may brought by surrounding communities to sell to the project workers. Since the project is expected to employ 25 people per site and total of 11.25kg of solid waste will be generated per site per day based on 0.45kg per person per day (Ministry of Mines, 2003). The contractor in all sites will provide solid waste management facilities such as refuse collection bins in strategic places.

2.8. Liquid waste

The project will also generate liquid waste (human excreta) from project workers who shall be working on the site throughout the day. On average, 0.128kg of faeces is generated per person per day. Based on the expected number (25) of people per site to be employed in the project, a minimum of 3.2kg of faeces per day will be generated (Rose Et al, 2015). The contractor will have mobile toilets in strategic places in all sites. At least two mobile toilets, one for male and the other for female. The contractor shall arrange with BCC to carry toilets (when they are full) and empty into existing wastewater treatment plants.

In addition, the following are proposed as a strategy for managing solid waste in the project:

- During the construction phase, waste will be segregated into biodegradable and non-biodegradable categories. Non-biodegradable and non-reusable waste will be transported by contractor to Mzedi Dumpsite in consultation with BCC.
- Reusable and recyclable waste will be sold to scrap dealers and private contractors for reuse. Waste like empty cement bags will be recycled for others uses such as making mats. Adequate on-site storage facilities shall be provided for these waste materials.
- Material waste like blocks for constructing road drain and cement will be repurposed as fill material, and concrete will be recycled and reused on-site when necessary.
- Solid waste generated during both the construction and operational phases, if any, will be managed in a way that minimizes environmental and social impacts. This includes proper collection, transportation, and disposal methods.

2.9. Tree Planting

It is advisable for the project to include tree planting initiatives across all beneficiary locations. BWB and BCC will conduct annual tree planting activities within its catchment area, and a deliberate effort will be made to supply seedlings for planting in these regions. The tree planting process will be conducted under the guidance of the District/ City Forestry Office. This office will educate community members on tree planting techniques, management practices, and the selection of appropriate tree species.

CHAPTER 3 : REVIEW OF POLICY AND LEGAL FRAMEWORK

This Chapter outlines the Policy, Legal Framework and regulatory framework for the implementation of the project in Malawi. It has also presented the World Bank Operation Policies, and Environmental and Social Standards (ESS) that are relevant for implementation of the project.

3.1. Policy Framework for the Project

3.1.1. Malawi 2063

The Malawi 2063 (MW2063) provides the framework for the long-term national development goals, and the policies and strategies to achieve them. According to MW2063, Malawians aspire an inclusively wealthy and self-reliant industrialized upper-middle-income country by the year 2063. To achieve this goal, three pillars are proposed: 1) Agriculture Productivity and Commercialization, 2) Industrialization, and 3) Urbanization.

Under pillar 3 (urbanization), the aspirations of Malawians are to have world-class urban centres and tourism hubs across the country, with requisite modern socio-economic amenities. The MW2063 calls for regulated and controlled infrastructure development planning. In line with this, the project will be implemented within the Blantyre City Council's Urban Structure Plan.

The MW2063 under Environmental Sustainability (enabler 7), recognizes natural disasters and climate adversities; environmental degradation; weak institutional capacity and coordination exacerbated by political interference in regulation and enforcement; limited awareness of environmental best practices; data gaps and limited funding for environment sustainability initiative. With the understanding that the environment and the development pillars have overlapping effects on each other, the MW2063 envisions a safe, clean, secure and sustainable environment.

The Malawi Implementation Plan-1 (MIP-1) is the country's first 10-year implementation plan and the new medium-term development strategy under Vision 2063, aimed at helping Malawi to graduate into a middle-income economy and achieve most of the Sustainable Development Goals by the year 2030. The construction of public sanitation facilities in primary schools is aligned to enabler 7 which talks about environmental sustainability of the Malawi Vision 2063 with an objective of promoting sustainable development with clean and secure environment. Focus area (2) of enabler No. 7 talks about Waste Management and green economy which focuses on adequate waste disposal, treatment and recycling. The proposed construction of public sanitation facilities (PSFs) with onsite sanitation methodology refers to sanitation systems where waste is collected, treated, and disposed of at or near the location of its generation, without the need for a centralized sewer system. The methodology for onsite sanitation typically involves a series of steps and processes aimed at ensuring hygienic waste management, protecting public health, and minimizing environmental impact.

The sanitation project falls under Pillar 5 (Human Capital Development) where the objective is to have globally competitive and highly motivated human resources. Pillar number 5 has the following focus areas that include: Education and skills development; Science, Technology and Innovation; Health and Nutrition; Managing population growth; Water, Sanitation and Hygiene (WASH); Sports and creative arts; and Gender equality & equity and social welfare. Water Sanitation and Hygiene (WASH) envision that the Government shall take the lead and rally partners and communities in promoting the adoption of safe water and sanitation practices at the individual and household level. This shall include the provision and promotion of the use of improved and accessible sanitation facilities.

Implications of the Malawi 2063 is that the project should be aligned to the 2063 vision. In achieving this, the project must ensure environmental sustainability by not destroying the environment when implementing the project activities of all phases. The report further recommends specific measures to mitigate the negative impacts and enhance the positive impacts through the project.

3.1.2. The National Environmental Policy, 2004

The overall policy goal is to promote sustainable social and economic development through sound management of the environment. It calls for the integration of environmental concerns

into national, district and community level planning processes. Some of the high priority areas of this policy include efficient utilization and management of natural resources, promotion of public participation, enhancement of public awareness and cooperation with other institutions. In line with this Policy, stakeholder consultations were conducted at national, district and national levels during the ESMP preparation. The designs have also considered the principles of sustainability to ensure that there is efficient use and management of resources during the construction and operation phases of the project.

Section 4.4 provides guiding principles for conducting ESIA, Audits and Monitoring. The ESIA must detect environmental consequences early, consider impacts on the social economic environment, evaluate impacts and develop appropriate environmental management plans; the ESIA must be cost effective and must be made public. In line with the National Environmental Policy, the ESMP has anticipated the project impacts, evaluated their severity, and it has recommended measures for managing the impacts. Additionally, also in accordance with Section 4.4 guiding principle ‘g’, the ESMP has provided for regularly monitoring by the project proponent.

In line with the environmental policy, in the Blantyre Water Board (BWB) and Blantyre City Council (BCC) project will integrate environmental concerns during the whole cycle of the project i.e., planning, design, construction, demobilization, operation and decommissioning. This will ensure that the construction of public sanitation facilities is not only environmentally friendly but also socially acceptable by the project beneficiaries and surrounding communities.

3.1.3. Malawi National Land Policy, 2002

The intent of the Malawi National Land Policy (2002) is to provide guidance on the management of land in Malawi, to promote optimal utilization of the country’s land resources for sustainable socio-economic development. With due recognition that land is a basic resource common to all people in Malawi, the Policy provides for procedures aimed at protecting and regulating land tenure rights, land-based investments and developments at all societal levels. The preparation of this ESMP has taken into consideration any potential land use related conflicts and any affected people and it has established that the proposed sanitation facilities are not infringing on rights of people over land ownership since there is

no acquiring new land for the project there will build on public land. The project will not displace people in the impact areas.

In Chapter 9, the policy highlights environmental management concerns regarding development projects. In Section, 9.8.1 (b) the policy states that environmental impact assessment studies shall be undertaken before any major land development project is carried out. This ESMP is important for ensuring minimal adverse environmental and social impacts in the land for the project. Additionally, all mitigation measures to do with land degradation outlined in this ESMP will be properly adhered to in all phases of the project and the places where raw materials including sand and quarry are being extracted.

3.1.4. National Forestry Policy, 2016

The goal of National Forest Policy 2016 is for the conservation, establishment, protection and management of trees and forests for the sustainable development of Malawi. Section 2.3 provides nine overall policy objectives, including the following, which are highly relevant to the project:

- To promote the growing of trees by all sections of the communities to achieve sustainable self-sufficiency of wood and forest derived products and services;
- To promote sustainable management of forests for the protection of the environment, conservation of biodiversity and climate change management; and
- To promote a well-regulated, compliant and monitored forestry sector with clearly defined forest standards and guidelines.

The policy prevents unnecessary changes in land-use that promote deforestation or endanger the protection of the forests which have cultural, biodiversity or water catchment values. It also discourages development activities in gazetted forests unless proven to be environmentally friendly for which suitable inter-sectoral and local consultations will be conducted. Above all, the policy advocates for carrying out of environmental and social impact assessment where actions are likely to have significant adverse impacts on important forests and other resources. This ESMP is in line with provisions of the policy. The Ministry of Water and Sanitation will therefore be required to take advantage of provisions under this policy to prevent unnecessary destruction of forest resources and related resources in the

project area. In line with this policy, the project can promote environmental conservation through planting of trees and other vegetative covers around the construction sites in order to prevent environmental degradation in the targeted sites.

The contractor, Blantyre Water Board (BWB), and Blantyre City Council (BCC) will adhere to the policy to minimize tree destruction during construction. Where trees need to be removed, the contractor will work with BCC to ensure technical guidance on restoration and replanting, mitigating the environmental impact of the project.

3.1.5. National Construction Industry Policy, 2015

The goal of the National Construction Industry Policy of 2015 is “to develop an internationally competitive construction industry that will be able to undertake most of the construction projects in Malawi and export its services and products and ensure value for money to industry clients as well as promote environmental sustainability in the implementation of construction projects”. It is expected that the project will help develop the capacities of Contractor and Suppliers to be able to work internationally, which is in line with the policy goal.

Section 3 provides the Policy Priority Areas, some of which include:

1. Regulation of the Construction Industry – promoting classification and registration of all persons engaged in the construction industry.
2. Enhancing Standards and Quality in procurement, design and implementation of projects.

The Proponent must use the standard procurement procedures in hiring the Contractor, who must also be registered with the National Construction Industry Council (NCIC). Further, the contractor must purchase construction materials from registered supplies.

The Blantyre Water Board (BWB) and Blantyre City Council (BCC) public sanitation facilities (PSFs) project will hire contractor registered with NCIC and the construction materials will be supplied from registered supplies to enhance quality standard.

From the policy goal, it is also noted that there is need to promote environmental sustainability in the construction works. This is also Policy Objective number IV, in Section 2.4 and is further discussed under priority area, “Crosscutting Issues” (Section 3.1, number a). The Policy advocates for mainstreaming all cross-cutting issues such as environmental management/ sustainability, occupational safety and health, gender equality, HIV and AIDS, Disaster Risk Management, in the industry. The Proponent must ensure that these issues are considered during the planning, design, and implementation of the construction works. Importantly, the ESMP has provided measures for protecting the environment, ensuring that workers, visitors and workers are protected from accidents and hazards, health concerns including HIV and AIDS and there is gender equality.

3.1.6. National Energy Policy, 2018

The overall goal of the Policy is to increase access to affordable, reliable, sustainable, efficient and modern energy for every person in country. The Policy seeks to guide planning and implementation of programmes, projects and activities in the energy sector with the aim of increasing access to affordable, reliable, sustainable, efficient and modern energy services for every person in the country. It reflects the latest developments in the energy sector and new national goals.

In this regard, the contractor and the project proponent should increase efficient utilization of energy by:

- Ensuring that the design of buildings should take advantage of natural lighting conditioning (cooling/heating).
- Conducting public awareness campaigns on renewable energy technologies focusing on availability, benefits, and suppliers.

3.1.7. National Sanitation Policy, 2008

The overall goal of the National Sanitation Policy is to promote improved sanitation and safe hygiene practices for improved health and socioeconomic development for the people of Malawi (Section 2.4). It has five themes, one of which is “Sanitation and Hygiene Promotion and Delivery of Services in Cities, Municipalities, Towns, Market Centres and Peri-Urban Areas” (Section 3.3). The policy goal under this theme is “to achieve universal access to improved sanitation and safe hygiene practices, and properly manage waste to protect the environment”. Objective number 1 under this theme is “to develop capacity for effective

sanitation and hygiene promotion” (Section 3.3.2). Relevant strategies for achieving this, which also have a bearing on the construction and operation of the hostels, kraal and offices are as follows:

- Undertake civic education and public awareness campaigns on improved sanitation and safe hygiene practices;
- Ensure that dirt and refuse shall be regularly removed by a suitable method at any work place;
- Ensure that the floor of any workroom shall be cleaned at least once every day by washing or, if it is effective by sweeping or other method;
- Ensure provision and maintenance of adequate drainage facilities for wet surfaces in workplaces;
- Ensure that every owner shall provide at a workplace washing facilities for male and female employees, easily accessible in the proportion of at least one hand washing basin and one shower for every twenty employees per shifts where shifts are operational;
- Ensure provision of adequate supply of safe water maintained at suitable points conveniently accessible to all persons employed; and
- Ensure that labour-related provisions of this policy shall be implemented in line with the Occupation Safety, Health and Welfare Act of 1997.

In addition, the policy objectives as highlighted in section 3.1.1 is the improvement of hygiene, sanitation and recycling of waste in the country. As such, the proposed project will ensure that liquid and solid waste management encourages the reduction, recycling and reuse of waste before final disposal hence complying with the provisions of the policy.

In this regard, the contractor will need to have good toilet facilities, waste bins, safe drinking water source and changing rooms among others. The contractor shall ensure provision of toilets are separate for men and women and that they are safe and user friendly for those physically challenged. In addition, the public sanitation facilities should contribute towards having a safe working environment for employees.

3.1.8. National Water Policy, 2004

The overall goal of the National Water Policy 2004 is to provide an enabling framework for sustainable management and utilization of water resources; to provide water of acceptable quality and in sufficient quantities; and to ensure availability of efficient and effective water and sanitation services for every Malawian. From the overall goal, several specific goals have been developed; those related to the project are as described below:

- Water Resources Management and Development (Section 4.0): it seeks to protect ground water and surface water resources, promote the adoption of water harvesting, and effective and efficient utilization of water.
- Water Quality and Pollution Control (Section 5.0): identifies environmental degradation and poor sanitation services as some of causes of water quality degradation and pollution.
- Water utilization (Section 6.0): provides strategies for promoting sustainable water utilization including demand management and conservation.
- Disaster Management (Section 7.0): provides strategies for improved coordinated and effective response to water related disasters.

In line with this policy, the Blantyre Water Board (BWB) and Blantyre City Council (BCC) must advocate for efficient management of water resources; participate or support efforts towards water resources protection; ensure and promote proper management and disposal of wastes; properly dispose material that can pollute water resources; and enforce public health and hygiene as well as pollution control.

3.1.9. National HIV and AIDS Policy, 2012

The goal of the Policy is to prevent the further spread of HIV infection, promote access to treatment for people living with HIV and mitigate the health, social-economic and psychosocial impact of HIV and AIDS on individuals, families, communities and the nation. The Policy has 8 key priority areas for implementation to achieve this goal; among them are i) Prevention, ii) Treatment, Care and Support. Under Prevention (Section 3.1), the Policy recognizes several challenges contributing to high incidences of HIV. Those that may occur during project implementation are:

- having multiple and concurrent sexual partners,
- low access and low uptake of condoms,
- low HIV Testing and Counselling (HTC) uptake,
- gender inequality and sexual violence,
- stigma and discrimination,
- Violation of human rights and inadequately managed sexually transmitted infections.

The Policy calls for providing quality HIV and AIDS prevention services and the promotion of access and uptake of HIV and AIDS prevention services. The implication is that the project must ensure there are provisions for ensuring the challenges mentioned above are mitigated, and construction workers and communities are encouraged to access HIV and AIDS preventions services.

Under Treatment, Care and Support (priority 2), the Policy calls for provision of quality treatment, care and support services to general, key and vulnerable populations. Thus, the construction workers and all stakeholders must be encouraged to go for HIV testing, and to access medication and treatment if, they are positive.

In addition, Information, Education and Communication (IEC) materials on HIV and AIDS will be distributed. It is further proposed that during implementation of construction activities of the sanitation facilities, BWB and BCC should ensure that the Contractor liaises with the stakeholders such as the City AIDS Coordinators for Blantyre city to sensitize workers as well as surrounding communities on the dangers of HIV and AIDS. It is also recommended that during mobilization and construction phases of the project, much of the labour force should be sourced from the surrounding communities to reduce the influx of migrant workers who may exacerbate the situation.

3.1.10. National Decentralization Policy, 1998

The policy, which came into effect in October 1998, devolves administrative and political authority to the district level and integrates government agencies at the district and local levels into a single administrative unit, the District Council (Section 2).

This policy is useful for the implementation of this project as it supports stakeholder involvement of decentralized structures to work together with private toilet operators in managing conflicts between users and the operators of the toilets. Thus, Blantyre City Council is the local government authority in the area where the proposed public sanitation facilities (PSFs) project in primary schools will be constructed and the BCC will be forefront to monitor the development to check if the contractor is following all the mitigation measures in the ESMP.

3.1.11. The National Gender Policy, 2015

The broad policy goal is to reduce gender inequalities and enhance participation of women, men, girls and boys in socioeconomic development processes (Section 2.1). The expected outcomes include:

- i. Increased participation of women, men, girls and boys in decision making, wealth creation and poverty reduction;
- ii. Reduced gender-based violence at all levels;
- iii. Enhanced gender mainstreaming across all sectors; and
- iv. Enhanced institutional capacity of the National Gender Machinery.

It is well known that men dominate staff in construction projects in Malawi. Fewer women are given leadership roles and there are incidences of gender-based violence. In line with the Policy, the Blantyre Water Board (BWB) and Blantyre City Council (BCC) must ensure that the principles of gender equality are mainstreamed in all stages of the project to ensure that the needs of different groups of people that may be affected by a project are taken care of. This also includes the implementation of the ESMP recommendations regarding mitigation of gender related impacts.

3.1.12. National Climate Change Policy, 2012

The overall goal of the Policy is to promote climate change adaptation and mitigation for sustainable livelihoods through measures that increase levels of knowledge and understanding and improve human well-being and social equity, while pursuing economic

development that significantly reduces environmental risks and ecological scarcities (Section 2.1). Its objectives are:

- To manage the impacts of climate change.
- To contribute towards the stabilization of greenhouse gas concentrations in the atmosphere.
- Integrate cross-cutting issues including climate financing, capacity building, research and technology, population, gender, HIV and AIDS through an appropriate institutional framework.

To achieve the goal and objectives, the policy has identified eight priority areas. The most relevant areas, and their implications on the project are presented below.

Table 3: Priority Areas and Implications in relation to Climate Change

Priority area	Implication
<p>Policy Priority Area 1: Adaptation Strives to reduce vulnerabilities and promote community and ecosystem resilience to the impacts of climate change</p>	Principles of sustainable construction must be integrated in the project to ensure that it is durable and less vulnerable to climate change problems e.g., floods, and other disasters e.g., earthquakes.
<p>Policy Priority Area 2: Mitigation Advocates for better land use, clean development mechanisms and Reduction of Emissions from Deforestation and forest Degradation (REDD)</p>	The project must plant trees to replace those that will be removed at the site; use renewable technologies as much as possible; control emissions; and manage waste using the principles of sustainability.
<p>Policy Priority Area 3: Capacity Building, Education and Awareness Advocates for creating awareness of, educating for, and building capacity for climate change adaptation and mitigation.</p>	Conduct sensitization, civic education and awareness meetings in relation to control of emissions and pollution and sustainable waste management.

3.2. Legal Framework for the Project

3.2.1. The Constitution of the Republic of Malawi, 1995

The Constitution of the Republic of Malawi of 1995 is supreme over any legal policy or Act in Malawi. Any Act of Parliament or any law that is inconsistent with the provisions of this Constitution shall, to the extent of such inconsistency, be invalid (Section 5). That is the policy and legal framework for the project, must be in line with the constitution.

Section 13, part d, accords for managing the environment and sustainable development of natural resources to prevent degradation; provide a healthy living and working environment for the people of Malawi; accord full recognition to the rights of future generations; and to conserve and enhance the biological diversity of Malawi. The project developer must comply with the section through implementation of the recommendations of the ESMP report.

The project also must promote gender equality and human rights. Under Section 13 (e), it is the responsibility of the state to achieve gender equality for women through:

- Full participation of women in all spheres of the Malawian society, based on equality with men;
- Implementation of principles of non-discrimination and such other measures as may be required; and
- Implementation of policies to address social issues such as domestic violence, security of the person, maternal benefits, economic exploitation and rights to property.

The ESMP has considered the gender impacts of the project and appropriate mitigation measures, in line with the Constitution, have been provided and have included monitoring institutions to monitor all project activities to observe if all mitigation measures are followed.

3.2.2. The Environment Management Act, 2017

The Environment Management Act (EMA) of 2017 is the legal basis for protection and management of environment and the conservation and sustainable utilization of natural resources. Part III provides for establishment of the Malawi Environment Protection Authority, whose function are provided in Section 9 and among others, they include:

- Section 9 (2) (e): Enforce the right to a clean and health environment, provisions of the EMA, and monitor and enforce compliance with environment and natural resources policies and legislations by lead agencies; and
- Section 9 (2) (f): Review and approve Environmental and Social Impact Assessments.

Thus, the ESMP must be submitted to MEPA for review and approval. During project implementation, MEPA has the right to enter the premises to enforce proper management of the environment and provide guidance as may be required.

Section 31 makes provision for, by way of notice published in the Gazette, projects that shall not be implemented unless an ESIA is carried out. In line with the Guidelines for EIA, a Project Brief was prepared and submitted to MEPA. Following the review of the project brief, an ESMP was prescribed and appropriate studies were conducted.

In Section 32, part 3, the EMA requires the developer to take all reasonable measures for mitigating any negative effects, which could not reasonably be foreseen in the ESIA process, and to report to the Authority such effects and measures. Thus, besides implementing the mitigations measures recommended in this report, the project proponent will be required to aggressively monitor project activities for any unforeseen impacts and address them as provided by the Act.

The Act in Part IX has provided for pollution control, whereby it states that it is the duty of any person to prevent the discharge or emissions of any pollutant into the environment otherwise than in accordance with the Act (Section 61, Part 1). The ESMP has considered the emissions and discharge from the project and their impact, and appropriate mitigation measures are to be adhered.

Overall, BWB and BCC developed this ESMP for the proposed project to ensure that the project is implemented in an environmentally responsible manner to ensure protection of the environment and sustainable utilization of natural resources. Additionally, the ESMP has been prepared in order to ensure that the project activities, such as water abstraction and mining of construction materials (sand and quarry stones), that threatens the environment fully adhere to these provisions.

3.2.3. The Forestry Act, 2017

The Forestry Act was enacted in 1997 and amended in 2017 for participatory forestry, forestry management and forestry education among others. The Act in Part 1, Section 2 defines a forest as an area of land proclaimed under the Act (gazetted) or un-proclaimed land with trees on it. The project site is not gazetted forest but is dominated by trees; hence, the provisions of this act apply.

The Act in Section 3 (b) seeks to augment, protect and manage trees and forests on customary land, to meet basic needs of local communities and for conservation of soil and water. It provides for the Director of Forestry who is responsible for planning, promoting, conducting and assisting in the activities required to maintain, restore and develop the forest cover necessary for soil and water conservation, maintenance of biological diversity and the supply of forest produce (Section 5 (a)). The Act in Section 46 provides that unless under a license, no person shall cut, take, felly, destroy, uproot, collect and remove forest produce from a forest reserve, customary land, public land and protected areas.

That is the project proponent is required to acquire a licence or permit before cutting down the trees in the proposed sites.

The Forestry Act under Forest Rules, Part VI section 17 provides the procedure for measuring volume of timber. Further, the Act in Second Schedule, it provides the royalties for removal of various types of trees, which considers the volume. The ESMP has considered the volume of the trees and costs during the assessment of the cost for mitigating the impact of clearing of the trees and will be required to replace trees cleared during mobilization and construction phase of the project.

3.2.4. Water Works Act, 1995

Water Works Act, 1995 provide the establishment of Water Boards water-areas and for the administration of such water-areas for the development, operation and maintenance of waterworks and water-borne sewerage sanitation systems in Malawi and for matters

incidental thereto or connected therewith. Water Works Act under services and supply of water Part IV says any person owning or occupying any premises may, with the approval of the Board, construct or alter a service for the supply of water from the waterworks. The construction or alteration of the service, including the nature, size and quality of the materials and fittings, shall be in accordance with the By-laws made under this Act. On the completion of the construction or alteration of a service to the satisfaction of the Board, such service shall be connected by the Board to the waterworks, subject to payment of the fee specified for such connections in such By-laws.

Water Works Act under operation of water-borne sewerage sanitation Part V section 29 aims to curb improper waste disposal of wastes says no person shall throw, empty, or turn, or suffer or permit to be thrown or emptied or to pass, into any public sewer, or into or any drain or private sewer communicating with a public sewer- any matter likely to injure the sewer or drain, or to interfere with the free flow of its contents, or to affect prejudicially the treatment and disposal of its contents.

In accordance with the Act Blantyre Water Board (BWB) and Blantyre City Council (BCC) entitled to a lawful access to water supply and use sewerage system after obtaining permission. The project the activities in the construction and operation phase of the projects, including wastewater disposal, must be carried out in a way that they do not block, pollute ground and surface water resources.

3.2.5. Water Resources Act, 2013

The Water Resources Act of 2013 aims at improving on already existing water resources management efforts in the country. The Water Resources Authority under the Ministry of Water and Sanitation administers the Act. The Act in Section 6 provides for right to public water for domestic purposes. The Act further, in Part V Section 39(1) prohibits abstraction of water without a Permit from National Water Resources Authority. In compliance with the provisions of the Act, the contractor will have to obtain water abstraction permit from relevant authorities before abstracting water for construction activities from any nearby river or a stream. The design of the facilities will also ensure that surface and ground water are protected from sewerage pollution.

The Act also advocates for sustainable water resources management including controlling and protection of water resources from contamination and pollution. In Section 16 (1) of the Act makes it an offence to interfere with, alter the flow of, pollute, or foul any public water.

Thus, the activities in the construction phase of the project, including waste water disposal, must be carried out in a way that they do not pollute ground and surface water resources. If the developer intends to discharge waste water into the surface water ecosystems, an “Effluent Discharge” permit will have to be acquired.

3.2.6. The Land Act (Amendment) of 2022

The Land Act (Amendment) of 2022 which is the principal legislation dealing with land tenure and land use, was enacted after the Land Act of 2016. The 2016 Land Act created a lot of discomfort among stakeholders ranging from rural people to other farming communities, traditional leaders, the academia, professional bodies and civil society. The major issues that have been addressed in the amended Land laws are the following: status of freehold land; sale of vacant freehold or leasehold land; concentration of land by few people; ownership of land by non-citizens; the role of traditional leaders in the administration of customary land; the role of customary law in the administration of customary land; and payment of fees for registration of customary land by rural land owners. Under this Act, it is illegal to enter on someone’s land and developing it without prior permission from the owner. Section 20 of the Act stipulates that encroachment of public land attracts a fine of K500, 000.00 and imprisonment to 3 years upon conviction. Section 7 of the Act categorize land as public land, customary land and private land. Section 9A guarantees access to land by all, subject to availability and a person’s means; prohibits concentration of land in a few individuals; and mandates the Minister to prescribe land ceilings. Section 39 (1) provides that where a lease is granted by the Minister and in accordance with this Act expires, it shall become public land. Where the land in question was created out of customary land, the Minister may convert the public land to customary. The Minister may reallocate the land giving priority to people of surrounding communities.

The Land Act has direct implications in the implementation of the project. The first issue is the compliance to procedures of appropriate acquisition of the land by the investors for the proposed development of public sanitation facilities (PSFs) in schools.

3.2.7. Physical Planning Act, 2022

The Physical Planning Act of 2022 provides for, among others, physical planning and orderly and progressive development of land in both urban and rural areas; to preserve and improve amenities thereof; and for the grant of permission to develop land and for other powers of control over the use of land. Part IV of the Act provide for preparation physical plans, within which developments can be implemented.

The project is in line with the physical development plans. Nonetheless, the developer is required to apply for a development permission in line with Section 46 of the Act and developer will seek all permission before the commencement of the project.

3.2.8. National Construction Industry Act, 1996

The Act provides for the establishment of the National Construction Industry Council of Malawi (NCIC), for the promotion and development of the construction industry, registration of persons engaged in the construction industry in Malawi, co-ordination of training of persons engaged in the construction industry and general matters incidental thereto. The NCIC is responsible for regulating the construction industry in Malawi through among others: registering consultants and construction firms, standardizing quality control, codes of practice, procurement process and legal contractual procedures in liaison with other organizations.

In accordance with the Act the project, BWB and BCC must use a registered construction works contractor. The National Construction Industry Council must be involved in ensuring that a quality contract is in place, resolving conflicts between contractor and client and ensuring that quality structures are developed.

3.2.9. The Local Government Act, 2017

The Local Government Act was enacted to further democratic principles, accountability, transparency and participation of Malawians in the decision-making and development process. Councils have the mandate to promote infrastructural and economic development through the formulation, approval and execution of development plans (Section 6 (c)). More functions of the Council are provided in Second Schedule of the Act, they include building

control, environmental planning and sanitation, prevention of environmental degradation, pollution control, collection and removal and treatment of solid and liquid waste and firefighting. The developer will have to cooperate with the City Council during the construction and operation phases of the project.

The project proponent will be required to pay for the removal of the trees, and plant replacement trees at a place to be provided by the Council or support tree-planting activities. The BWB and BCC will have to collaborate with the Contractor on matters of tree and grass planting as part of rehabilitation measure for the site.

3.2.10. Public Health Act, 1948

The Public Health Act was enacted in 1948 and seeks to preserve public health through, among others, the following provisions that are relevant to the project:

- Part IX of the Act relates to sanitation and prohibited nuisances. Section 62 provides the activities and conditions that are deemed as nuisances. In line with the provisions, Contractors must ensure that there are sanitary structures; vehicles and any other materials used are not in a state that can cause accidents; machine smoke cannot cause injuries to health; and that all material defined as nuisance are not in the workplace. During operation phase of the proposed development of public sanitation facilities (PSFs), the structures should be kept clean and hygienic all the time, overcrowding should be avoided.
- Part X has provisions for conservancy; sewerage and drainage; and encourages new buildings to have sewage systems, either private or public (connecting to the local authority sewerage). Section 87 stipulates the need for proper drainage works for new buildings. The drainage works must be designed to carefully drain out storm water and sub soil from building sites and cartilage. Section 88 stipulates the requirements for separate toilets for both female and male persons in public buildings. Section 82 guides the protection of sewerage systems by preventing the throwing or emptying of waste that may injure the sewer, affect free flow of contents or affect treatment of sewage.

The provisions of the Public Health Act are to be followed and any deviation from the Act is punishable by fines and imprisonment. The Act gives the local authorities the right to inspect any premises for compliance with the Act.

Importantly, Part III, IV, and V make provisions for preventions and suppressions of infectious, formidable epidemic and endemic diseases. The provisions include notifying the public of such diseases and making rules for prevention of the diseases (Section 31). In line with the later provision, in 2020 the Government of Malawi adopted the Public Health (Corona Virus Prevention, Containment and Management) Rules. During the construction of the project, the Contractor must keep up to date to the latest information of Covid 19 (and any other notifiable disease) and follow the appropriate rules and guidelines.

The developer therefore will ensure that provisions under this legislation are complied with by among others ensuring provision of adequate sanitary facilities such as latrines and rubbish pits for use by workers.

3.2.11. Gender Equality Act, 2013

The Gender Equality Act of 2013 is aimed at promoting gender equality, equal integration, influence, empowerment, dignity and opportunities, for men and women in all functions of society, to prohibit and provide redress for sex discrimination, harmful practices and sexual harassment, to provide for public awareness on promotion of gender equality, and to provide for connected matters. Part II of the Act prohibits sex discrimination, defined in Section 4, part 1 (a) as treating another person less favourably than he or she would treat a person of his or her own sex. A fine is provided for such an offence (Section 4 part 2). The Act also prohibits harmful practices (Section 5) and sexual harassment including at workplace (Section 7).

Recognizing the gender disparities in employment opportunities, the Gender Equality Act makes provision for the recruiting authority in the public service to appoint no less than 40 percent and no more than 60 percent of either sex in any department in the public services (Section 11 part 1). This must also be extended to the employment opportunities during the construction phase of the project.

Overall, the project must ensure that there is gender mainstreaming including involving women in the consultations, awareness and sensitization process; natural resources management; providing equal employment opportunities to both women and men and close monitoring of gender related impacts. All gender related complaints must be investigated and addressed appropriately by the responsible state agencies and the private sector where appropriate.

3.2.12. Employment Act, 2000

The Employment Act of 2000 was enacted “to establish, reinforce and regulate minimum standards of employment with the purpose of ensuring equity necessary for enhancing industrial peace, accelerated economic growth and social justice and for matters connected therewith and incidental thereto”. The Act applies to the private sector and the Government, including any public authority or enterprise and those employed in a civilian capacity.

Part II Section 6 (1) of the Act stipulates that every employer shall pay employees equal remuneration for work of equal value without distinction or discrimination of any kind on basis of sex, language, religion, political, ethnic or social origin and disability just to mention a few. Part IV Section 21 prohibits against child labour and Part II Section 4 (1) prohibits against forced labour. Sub-section 1 of Section 21 also stipulates that no person under the age of fourteen and eighteen shall be employed or work in any public or private agriculture, industrial or non-industrial undertaking. Part IV Section (22) stipulates that no person between the age of fourteen and eighteen years shall work or be employed in any occupation or activity that is likely to be hazardous work.

In line with the Act, the project proponent must make sure that no employee is discriminated against based on ethnicity, sex, political, language and religion differences and that no person prevention of accidents in the workplaces, including government establishments and operations, as well as building and civil engineering construction works (Section 5). It requires that employees be provided with between the age of fourteen and eighteen is recruited for this project. Surety must also be made that all employees are subject to equal pay based on normal working hours set out in Part VI of the employment Act.

3.2.13. Occupational Safety, Health and Welfare Act, 1997

The Occupational Safety, Health and Welfare Act has provisions for the registration of a workplace and the regulation of the conditions of employment in workplaces; regarding the safety, health and wellbeing of employees. The Act provides for inspection of plant and machinery, for the appropriate protective clothing and equipment to prevent accident and injury.

The project must comply with the Occupational Safety, Health and Welfare Act. In relation to the Act is relevant as the construction activities may involve working and movement of machineries. All these poses great environmental, health and safety hazards if not managed properly. The ESMP will include mitigation measures to reduce accidents at workplace. Workers must be provided with appropriate protective clothing to prevent accidents related to the construction and operation functions; and breathing masks, earmuffs and goggles where they will be exposed to potential risks and offensive substances as required by Sections 58, 59, 60.

3.2.14. HIV and AIDS (Prevention and management) Act, 2018

The HIV and AIDS (Prevention and management) Act, 2018 makes provisions for prevention and management of HIV and AIDS; to provide for the rights and obligations of persons living with HIV or affected by HIV and AIDS; to provide for the establishment of the National AIDS Commission; and to provide for matters incidental thereto or connected therewith.

Chapters VIII of the Act makes provisions for persons living with HIV and AIDS in employment. Chapter VIII, Section 26 states, “An employer shall not require any person to undergo HIV testing as a precondition for recruitment”. In Section 27, the employer is not allowed to terminate employment on the grounds of HIV and AIDS. Other provisions prohibit discrimination (Section 28) and minimizing the risk of HIV infection at workplace (Section 31). In line the Act, the project proponent will not require any person to undergo HIV testing as a pre-condition for recruitment and will not terminate an employment of any

employee perceived to be living with HIV. The ESMP has also provided measures for reducing the risk of infection.

The BWB and BCC will also make sure that, a person diagnosed as having HIV infection is undergoing counselling by a health service provider and complies with precautions and safety measures prescribed by a health service provider to prevent further spread and will not terminate an employment of any employee perceived to be living with HIV. This is in line with Part X of the Act.

3.3. Other regulations and rules

3.3.1. Guidelines for Environmental Impact Assessment, 1997

The Guidelines for Environmental Impact Assessment of 1997 outlines the process for conducting ESIA and facilitates its compliance by developers as provided for in the Environment Management Act, 2017. The guidelines act as a tool for integrating environmental concerns into development plans at all levels.

The Guidelines contain a list of prescribed projects for which ESIA or an ESMP is mandatory; hence, they assist in environmental screening. A project developer is also required to prepare a project brief and submit it to MEPA, to inform the Director General that a project is being considered and to facilitate project screening for a decision on whether an ESIA or ESMP report should be prepared. The Project Brief was prepared for the proposed development of public sanitation facilities (PSFs) (Schools) in Blantyre and an ESMP was recommended.

The Guidelines require that no licensing authority issue any license for a project unless a consent to proceed based on a satisfactory ESIA or non-requirement of an ESIA is provided. This ESMP complies with this requirement.

3.3.2. Public Health (Corona Virus and Covid-19) (Prevention, Containment and Management) Rules, 2020

The Public Health (Corona Virus and Covid-19) (Prevention, Containment and Management) Rules were adopted to help prevent, contain and manage the spread of Corona Virus and Covid-19 infections. They state measures to be taken by a person who has Covid-19 symptoms and measures to be followed by the public. Concerning construction projects, the following measures are to be used:

- Provide adequate facilities to ensure that employees, customers and visitors entering or exiting the workplace wash hands with soap and water or with alcohol-based sanitizers, at no cost;
- Decongest workplaces by introducing shifts to avoid overcrowding;
- Where it is necessary for employees to be physically present at the workplace, arrange work in a way that allow for physical distancing of at least one metre from other persons;
- Limit the number of visitors to the workplace and designate waiting space for authorized visitors;
- Allow employees with Covid-19 symptoms to stay at home; and
- Place posters on prevention of the spread of Covid-19 at strategic locations throughout the workplace.

The project must comply with the Corona Virus and Covid-19 rules. Employees must also take reasonable care for their personal safety and that of other persons who may be affected by their acts or omissions at work and outside work to protect them from Corona Virus and Covid-19.

3.3.3. Environment Management (Waste Management and Sanitation) Regulations, 2008

The Regulations provide for management of general or municipal solid and liquid waste, solid waste recycling and recycling facilities, management of hazardous wastes, transportation and storage of waste, waste disposal site or plant and trans boundary movement of wastes. The Regulations in Part III gives the waste generator the responsibility of sorting and safe storage of wastes. Section 9 of the Regulations, in Part III, allows the waste generator, with special permission from the local authority, to dispose of general or municipal solid waste which is non-hazardous in an environmentally sound manner in

accordance with by-laws made by a local authority. Therefore, the project proponent has the responsibility of sorting and safe storage of wastes for disposal by recommended measures by Blantyre City Council. Should there be no waste collection services; the proponent is allowed, with permission to disposal, the wastes at the Council's approved place.

Regarding liquid waste, the Regulations Part V makes provision that no person shall introduce effluent to water resources unless the effluent meets the quality standards for discharge to water are met; and there is adequate proof that the receiving water body shall efficiently dilute the effluent to prevent any hazard to the environment or public health. During construction and operation, the project will not discharge effluent into the environment; should there be discharge, appropriate measures must be followed to ensure that the effluent is within the acceptable standards.

The Environment Management (Waste Management and Sanitation) Regulations also make provisions on the management of hazardous waste and transportations as well as storage of waste in Part VI and VII respectively. Part VI Section 36 (1) stipulates that no industry, business or medical facility shall discharge any hazardous waste in any state into the environment unless such waste have been treated in accordance with acceptable international methods that are approved by competent local authority in consultation with the Director. On the other hand, in Part VII Section 45 (1) the Regulations also stipulates that no person shall engage in business of transporting, handling or storage of wastes without first applying for a licence from the Director in accordance with provisions of the Regulations. Failure to do so, the person who contravenes this regulation commits an offence and is punishable by law. The Proponent must adhere to the regulations during implementation of the project.

3.3.4. Environment Management (Chemicals and Toxic Substances) Regulations, 2008

The Environment Management (Chemicals and Toxic Substances) Regulations of 2008 makes provisions for production, extraction, importing, transporting, storing, distributing, and selling of other mode or handling of chemicals and toxic substances in a liberalized market and for matters connected therewith. The Act in part II requires a licence to carry out the manufacturing, transporting, distributing sale or other mode of handling chemicals and toxic substances. The MEPA provides such a license in accordance with the regulations.

Part II of the Act provides obligations of the license holder, whereby Section 31 provides for “Disposal of toxic substances”, while Section 32 provides for “Prevention of pollution from disposal sites and treatment plants”. A person who has a license must ensure that highly toxic or hazardous chemical wastes are disposed of or treated in accordance with conditions specified in the license or in accordance with any general guidelines issued by the Director in consultation with the Director responsible for local government.

The project must comply with the provisions of the Environment Management (Chemicals and Toxic Substances) Regulations to ensure that chemical and toxic substances and wastes are managed properly.

3.3.5. National Construction Industry (Use of Sustainable Construction Materials) Regulations, 2018

These Regulations seek to promote the use of sustainable and environmentally friendly construction materials in the Construction Industry. Section 2 (a) of these regulations calls for the consultant involved in construction works to design for, and specify, sustainable construction methods and materials for clients. Similarly, in Section 3 it also says that a “public or commercial project shall be executed by using approved, energy efficient, sustainable and environmentally friendly construction materials and technologies in all phases”. The implication is that the project must be designed and implemented using sustainable materials.

To enforce these Regulations, Section 5 calls for the authorities to disapprove development projects that do not utilize sustainable construction materials.

The Regulations in Section 6 makes provision for phasing out the use of traditionally fire-cured bricks. The project will not use such type of bricks.

3.3.6. Statutory Approvals and Licences Required for the Project

Based on review of the requirements of the above policies and legislation and based on consultation with key regulatory institutions, a summary of relevant statutory and regulatory

approvals and licenses, to be obtained in course of implementing the proposed project, are listed in table 3.

Table 4: Statutory Approvals/Licenses Required for the Proposed Project

Statutory approval or license to be obtained	Legal and regulatory framework	Purpose	Responsible department for processing	Designated responsible officer for processing
ESMP Approval	Environment Management Act, 2017. Guidelines for Environmental Impact Assessment in Malawi	To comply with the ESMP requirements and to develop environmental management and monitoring plans	Malawi Environment Protection Authority (MEPA), Ministry of Forestry and Natural Resources	Director General for Malawi Environment Protection Authority (MEPA)
Building by law approval	Building By-Laws, 1962	To guide Construction works, building materials and occupation standards of the building	Blantyre City Council	Director of Planning and Development
Planning permission	Physical Planning Act 2022	To regulate land use	Blantyre City Council	Director of planning and Development
Workplace Registration Certificate	Occupational Safety, health and welfare Act 1997	To allow for inspections by the directorate, Compliance with Occupational Safety, Health and	Ministry of Labour	Director of Occupation Safety, health and Welfare

Statutory approval or license to be obtained	Legal and regulatory framework	Purpose	Responsible department for processing	Designated responsible officer for processing
		Welfare issues		
Approval for potable water supply to the site	Water Works Act 2013	To regulate potable supply water to the site	Blantyre Water Board	General Manager

3.3.7. Environmental Standards in Malawi

During the implementation of the project will trigger several Environmental Standards set by the Malawi Bureau of Standards. Some of the standards are as follows:

Standard	Title
MS 214:2005	Drinking Water – Specification
MS 691:2005	Tolerance Limits for Domestic/Sewage Effluents Discharged into Inland Surface Waters
MS 714:2005	Occupational Safety and Health Management Systems – Specification
MS 719:2005	Hazardous Waste – Management, Classification and Disposal – Code of Practice
MS 59:2002	Solid waste – handling, transportation and disposal – code of practice
MS 730:2005	Solid waste disposal sites, guidelines for design
MS 89:1991	Pesticides Handling, Storage and Disposal
MS 120:1988	General requirements for pesticides – specifications

The Project Proponent, the Contractor and suppliers must ensure that the standards are met.

3.3.8. International Finance Corporation Environmental, Health and Safety Guidelines

The International Finance Corporation's (IFC's), Environmental, Health and Safety Guidelines (EHS Guidelines) are implementation tools for IFC's performance standards. About 63 EHS guidelines (1 general guideline document, 62 sectoral guidelines) have been developed for various types of projects and contain performance levels and measures considered generally acceptable by the World Bank Group. The EHS Guidelines contain the performance levels and measures that are normally acceptable to the World Bank Group and they are generally considered to be achievable in new facilities at reasonable costs by existing technology.

Of special interest are the EHS guidelines for Construction and Decommissioning, Occupation Health and Safety, and Community Health and Safety. The Construction and Decommissioning guidelines provide specific guidance on prevention and control of community health and safety impacts that may occur during new project development, at the

end of the project life cycle, or due to expansion or modification of existing facilities. On the other hand, Occupation Health and Safety guidelines provide guidance and examples of reasonable precautions to implement in managing principal risks to occupational health and safety. The Community Health and Safety guidelines addresses some aspects of project activities taking place outside of the traditional project boundaries, but nonetheless related to the project operations, as may be applicable on a project basis. The EHS Guidelines have been used as guides for some aspects of the mitigation management. Refer to APPENDIX 4: OCCUPATION SAFETY AND HEALTH PLAN

3.3.9. World Bank Environmental and Social Standards

World Bank Environmental and Social Standards (ESSs) are used during the implementation of projects or activities funded by the Bank to protect the interest of beneficiaries, clients, shareholders and the Bank. The ESSs also provides a comprehensive framework for enhancing positive impacts, avoiding negative impacts and promoting sustainability. Below is the summary of ESSs identified as relevant to the proposed public sanitation facility project;

- ESS1: Assessment & Management of Environmental & Social Risks and Impacts
- ESS 2: Labour and Working Conditions
- ESS 3: Resource Efficiency and Pollution Prevention and Management
- ESS 4: Community Health and Safety
- ESS 8: Cultural Heritage
- ESS10: Stakeholder Engagement and Information Disclosure

3.3.9.1. ESS1: Assessment and Management of Environmental and Social Risks and Impacts

ESS1 sets out 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 outcomes consistent with the Environmental and Social Standards (ESSs). The ESSs are designed to help in managing the risks and impact of a project, and improve their environmental and social performance, through risk and outcomes-based approach.

The preparation and subsequent adoption and implementation of this ESMP complies with this standard. The development of this Environmental and Social Management Plan for

construction of public sanitation facilities will ensure that environmental and social impacts are identified and managed in an environmentally and socially sound and sustainable manner. In line with ESS1 an environmental and social screening of the proposed project was undertaken and it was found that they will be of low to moderate severity. Hence, the PSF works were classified as Moderate Risk; which triggered further environmental and social assessments, stakeholder engagements and the preparation of the Environmental and Social Management Plan. During project implementation there will be need for adequate monitoring and reporting on the environmental and social performance of the project works against the ESS 1.

The environmental and social management will be proportionate to the risks and impacts of the project. The assessment will inform the design of the project and will be used to identify mitigation measures and actions and to improve decision making. Management of environmental and social risks and impacts of the project will be throughout the project life cycle in a systematic manner, proportionate to the nature and scale of the project and potential risks and impacts.

3.3.9.2. ESS 2: Labour and Working Conditions

The ESS 2 recognizes the importance of employment creation and income generation in the pursuit of poverty reduction and inclusive economic growth. Project implementers can promote sound worker management relationships and enhance the development benefits of a project by treating workers in the project fairly and providing safe and healthy working conditions. ESS 2 applies to workers including full time, part-time, temporary, seasonal and migrant workers.

The project will use recommended Labour Management Procedures, including guidelines on health, safety and welfare of the workers in accordance with the requirements of national law and ESS2. Refer to

APPENDIX 8: LABOUR MANAGEMENT PLAN (LMP) As per this ESS, a worker-specific Grievance Mechanism to support implementation of program activities is available. Refer to

APPENDIX 7: GRIEVANCE REDRESS MECHANISM

To ensure safety of the workers from hazards, measures relating to occupational health and safety risks guided by the WB General Environmental Health and Safety Guidelines, and Occupational Safety Health and Welfare Act, 1997 will be adopted during project implementation. The OHS measures are an integral part of the legal agreement as they are included in the ESCP.

Measures will be put in place, to avoid the impact associated with influx of migrant workers. The project will ensure the workers and communities abide by the code of conduct to minimize and mitigate environmental and social impacts. No child shall be employed during implementation of the program. Refer to APPENDIX 2: CODE OF CONDUCT

3.3.9.3. ESS 3: Resource Efficiency and Pollution Prevention and Management

ESS 3 recognizes that economic activity and urbanization often generate pollution to air, water, land, and consume finite resources that may threaten people, ecosystem services and the environment at local, regional and global level. The nature of the proposed project activities is expected to cause significant water and energy use; and the associated handling and storage of construction material could raise the potential for waste production. Inappropriate disposal of wastewater might pollute the environment, and burning of wastes generated in construction activities may contribute to air pollution. Building materials such as sand, quarry and gravel will also have to be obtained from sustainable sources to avoid impacts on natural resources. To comply with this ESS, the contractor will be required to apply technically and financially feasible resource efficiency and pollution prevention measures in accordance with the mitigation hierarchy (anticipate, avoid, reduce or minimize and compensate or offset).

It is also important to mention that all the PSFs will initially operate with an onsite septic tank system bearing in mind that this subproject is responding to an emergency cholera event and may not wait until the waste water treatment plants are upgraded in 2025-2026. However, where feasible, some of the PSFs will be connected to the existing sewer line once it is

upgrade. The rest of the PSFs will continue to operate using the on-site septic tank system because they are not within catchment area of any of the waste water treatment plans. Another reason for not being connected is that they are topographically challenged in term of gravitational flow of the sewer from the PSF to the treatment plant.

All the onsite septic tank system will be provided with a soak away pit and French Drains that distribute the effluent evenly over a large area of the underground soil, allowing for natural filtration, absorption and breaking of remaining pollutant by beneficial microorganisms.

Air pollution (odour) during operation will be prevented by the designs of the PSFs which is in such a way that their squat pans are provided with integral flushing rim to allow for complete flushing of human excreta. In addition, the squat pans will be fitted with a P or S Trap that will prevent odorous air in the septic tank from escaping back into the toilet rooms. ESS 3 recognizes that economic activity and urbanization often generate pollution to air, water, land, and consume finite resources that may threaten people, ecosystem services and the environment at local, regional and global level. The current and projected atmospheric concentration of Greenhouse Gases threatens the welfare of current and future generations.

3.3.9.4. ESS4: Community Health and Safety

ESS 4 recognizes that program activities, equipment, and infrastructure can increase community exposure to risks and impacts. Its objectives are to:

- 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 considerations 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 have in place effective measures to address emergency events.
- 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.

The Malawi Water and Sanitation Project-1 (MWSP-1) is aware of the fact that the proposed project activities will take place in congested areas of existing primary schools hence community health and safety risk is high. To satisfy the requirements of ESS4, the Environmental and Social Assessment of the project works considered the risks and impacts of the project on the health and safety of the communities. Measures have been provided in the ESMP to avoid the impacts or reduce their effects in the case that they still occur.

3.3.9.5. ESS 8: Cultural Heritage

The term ‘cultural heritage’ encompasses tangible and intangible heritage, which may be recognized and valued at a local, regional, national or global level. Tangible cultural heritage, may include movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Tangible cultural heritage may be located in urban or rural settings, and may be above or below land or under the water; Intangible cultural heritage, which includes practices, representations, expressions, knowledge, skills as well as the instruments, objects, artefacts and cultural spaces associated therewith that communities and groups recognize as part.

The construction of public sanitation facilities (PSFs) in schools in this project may not adversely affect cultural heritage in the earmarked site. However, since the construction of the PSFs involves excavation of trenches for foundation of the facilities, it is probable that a physical cultural resource can be found in the course of undertaking the excavation works, hence the need to have a chance find procedure in place to manage such accidental encounters. Refer to

APPENDIX 5: CHANCE FINDING PROCEDURE

3.3.9.6. ESS10: Stakeholder Engagement and Information Disclosure

ESS 10 recognizes the importance of open and transparent engagement between the project proponent and program stakeholders as an essential element of good international practice. Effective stakeholder engagement can improve the environmental and social sustainability of program activities, enhance program acceptance, and make a significant contribution to successful program design and implementation.

Stakeholder engagement and information is an integral part of the implementation of the project. During the ESMP preparation, all relevant stakeholders were met and consulted (refer to Appendix 1A: Stakeholder consultant at Mpingwe primary school). Importantly, to apply the requirements of ESS10, the Proponent will continue to disclose information to allow stakeholders to understand the risks and impacts of the project, and potential opportunities and solicit ideas that will help improve implementation of the PSF activities.

ESS10 will play an important role during construction of PSFs in primary schools by ensuring timely disclosure of project information to all relevant stakeholders and facilitating meaningful engagement with learners, school management, the surrounding communities, and establishing an inclusive and responsive grievance mechanisms. This will foster open communication, builds trust, and enables stakeholders to provide feedback, ultimately contributing to better project outcomes and more effective environmental and social management. Refer to Appendix

APPENDIX 1B: FIELD VISIT AT MBAYANI-1 PRIMARY SCHOOL



APPENDIX 1C: STAKEHOLDER ENGAGEMENT PLAN.

CHAPTER 4 : ASSESSMENT OF BIOPHYSICAL AND SOCIO-ECONOMIC BASELINE INFORMATION

This chapter shall provide description of the biophysical and socio-economic characteristics of the proposed project sites.

4.1 Bio - Physical environment

3.3.9. 4.1.1. Specific location, terrain

Table 3 and 4 highlight specific description of each site in terms of site location (name), photo, GPS Coordinates, topography, including type of soil for each site,

Table 5: Sites of Schools Earmarked for the Construction of Public Sanitation Facilities

NO	NAME	DESCRIPTION	SITE IMAGE	AERIAL PHOTOGRAPH
1	<p>Malabada Primary school</p> <p>GPS Coordinates:</p> <p>X:718512.0</p> <p>Y:8256577.3</p>	<p>The school is located in Malabada ward under T/A Kapeni, (Blantyre district). The site is generally gentle slope with sparse vegetation cover and the soil type is loam and few sedimentary rocks. No endangered species will be affected by the construction of Public Sanitation Facility.</p>		

NO	NAME	DESCRIPTION	SITE IMAGE	AERIAL PHOTOGRAPH
2	Mbayani 1 Primary school. GPS Coordinates: X:715268.8 Y:8255138.3	The school is located in Mbayani Railway line ward in T/A Kapeni, (Blantyre district). The site is at gentle slope with sandy loam soil and sedimentary rocks. No vegetation around the site will be affected by the construction activities. .	 <p>MWSP-1 Mbayani 1 Primary PSF Site 11.07.2025 10:11 -15.7730735,00934 6265-RPV Blantyre</p>	 <p>MBAYANI 1 PRIMARY SCHOOL</p>
3	Matope L.E.A. School. GPS Coordinates: X:719956.3 Y:8255002.7	The school is located in Ndirande Matope ward under T/A Kapeni in Blantyre district. The soil type is sandy loam and the site is on steep slope due to its proximity to Ndirande hill. Vegetation around the site is sparse, consisting mainly of small shrubs, and there are no endangered species.	 <p>MWSP-1 Matope Primary PSF Site 11.07.2025 12:10 -15.7730735,00934 6265-RPV Blantyre</p>	 <p>MATOPE PRIMARY SCHOOL</p>

NO	NAME	DESCRIPTION	SITE IMAGE	AERIAL PHOTOGRAPH
4	Mbayani 2.L.E.A. School. GPS Coordinates: X:715216.2 Y:8254920.5	<p>The school is located in Mbayani Railway line ward in T/A Kapeni, (Blantyre district). The site has steep slope due to its proximity with a hill. The soil type is sandy loam. Vegetation around the site is sparse, consisting mainly of small shrubs, and there are no endangered species.</p>		
5	Kapeni L.E.A School. GPS Coordinates: X:718558.7 Y:8248495.3	<p>The school is located in Kapeni –Manje ward in T/A Kapeni Blantyre district. The site is an idle land with gentle slope and sandy loam soil with an indigenous tree and shrubs. No endangered species will be affected by construction activities.</p>		

NO	NAME	DESCRIPTION	SITE IMAGE	AERIAL PHOTOGRAPH
6	<p>Sigerege Primary school.</p> <p>GPS Coordinates:</p> <p>X:710654.6</p> <p>Y:8254053.5</p>	<p>The school is located in Chilomoni ward, T/A Kuntaja, Blantyre district. The site is an idle land with gentle slope. The soil type is sandy loam with no vegetation. No flora or fauna will be affected by the construction of Public Sanitation Facility</p>	 <p>MWSP - 1 Sigerege Primary PSP Site 14.07.2025 15:36 16.78341, 14.46714 2025/07/14 Blantyre</p>	 <p>SIGEREGE PRIMARY STUDENTS TOILET SITE</p>
7	<p>Chimaliro Primary School.</p> <p>GPS Coordinates:</p> <p>X: 721679.3</p> <p>Y:8246210.5</p>	<p>The school is located in Chigumula Club Banana Ward T/A Machinjiri Blantyre district. The site is an idle land with gentle slope covered with shrubs. The soil type is sandy loam. No endangered species will be affected by construction activities.</p>	 <p>MWSP - 1 Chimaliro Primary PSP Site 12.07.2025 09:47 16.92314, 15.19285 2025/07/12 Blantyre</p>	 <p>CHIMALIRO PRIMARY SCHOOL TOILETS</p>

NO	NAME	DESCRIPTION	SITE IMAGE	AERIAL PHOTOGRAPH
8	<p>Chisombezi Primary School.</p> <p>GPS Coordinates:</p> <p>X:723878.35</p> <p>Y:8250029.93</p>	<p>The school is located in Bangwe-Ntopwa Ward, T/A Machinjiri, Blantyre district. The site is an idle land with gentle slope and the soil type is sandy loam. No flora or fauna will be affected by the construction of Public Sanitation Facility.</p>	 <p>MWSP - 1 Chisombezi Primary PSF Site 14.07.2025 13:53 -15.81806, 35.06030 53.8166P, Blantyre</p>	 <p>CHISOMBEZI PRIMARY SCHOOL, STAFF AND STUDENTS TOILET SITE</p>
9	<p>Namatapa Primary School.</p> <p>GPS Coordinates:</p> <p>X:722260.0</p> <p>Y:8249608.5</p>	<p>The school is located in Bangwe –Ntopwa ward, T/A Machinjiri, Blantyre district. The site is an idle land with gentle slope and sparse grasses. No flora or fauna will be affected by the construction of Public Sanitation Facility.</p>	 <p>MWSP - 1 Namatapa Primary PSF Site 11.07.2025 15:43 -15.82242, 35.07502 53.8166S, Mapingwe Road, Blantyre</p>	 <p>NAMATAPA PRIMARY SCHOOL TOILETS</p>

NO	NAME	DESCRIPTION	SITE IMAGE	AERIAL PHOTOGRAPH
10.	Mpingwe Primary Schools. GPS Coordinates: X:724645.7 Y:8251262.7	The school is located in Mpingwe ward, T/A Machinjiri, Blantyre district. The site is an idle land with gentle slope covered with sparse fruit trees and some shrubs. The soil type is sandy loam.		

4.2 Climate characteristics

The climate for Blantyre city which also covers all the sites proposed for the construction of PSFs is classified as tropical wet and dry savanna influenced by specific location in the tropical zone and altitude. The rainy season runs from November to April while end May commences continuing light cold showers locally known as Chiperoni. The annual precipitation averages 834mm which is equivalent to 834L/m³, of which 80% is experienced within 3.5 months from November to March. Temperatures range from 19°C in May to July and 26°C during hot season in September to November. The temperatures vary by 7°C which is an indication that continentally type is hyperoceanic (Climatic data org). Figure 2 shows temperature, rainfall and humidity in a year.

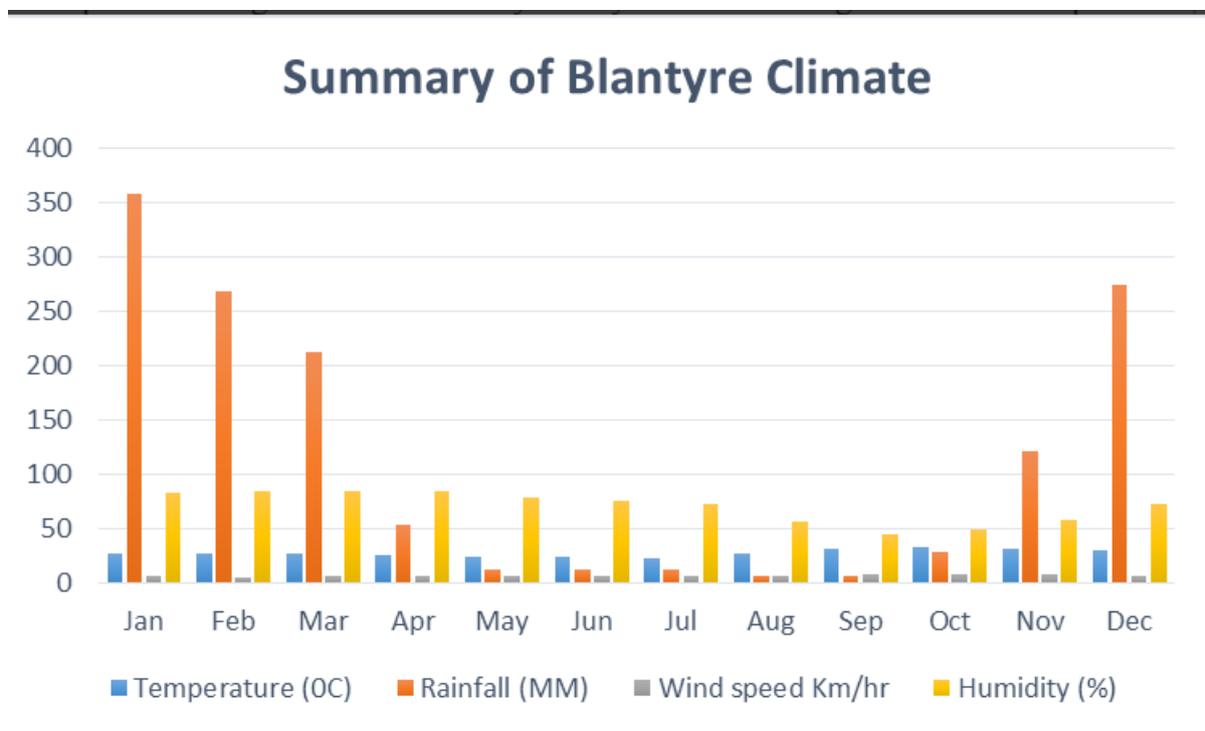


Figure 2: Blantyre climate

Source: Climatic data org

Precipitation is the lowest in August, with an average of 10 mm | 0.4 inch. On average, the highest amount of rainfall occurs during January with a mean value of 321 mm | 12.6 inch as shown in Figure 2.

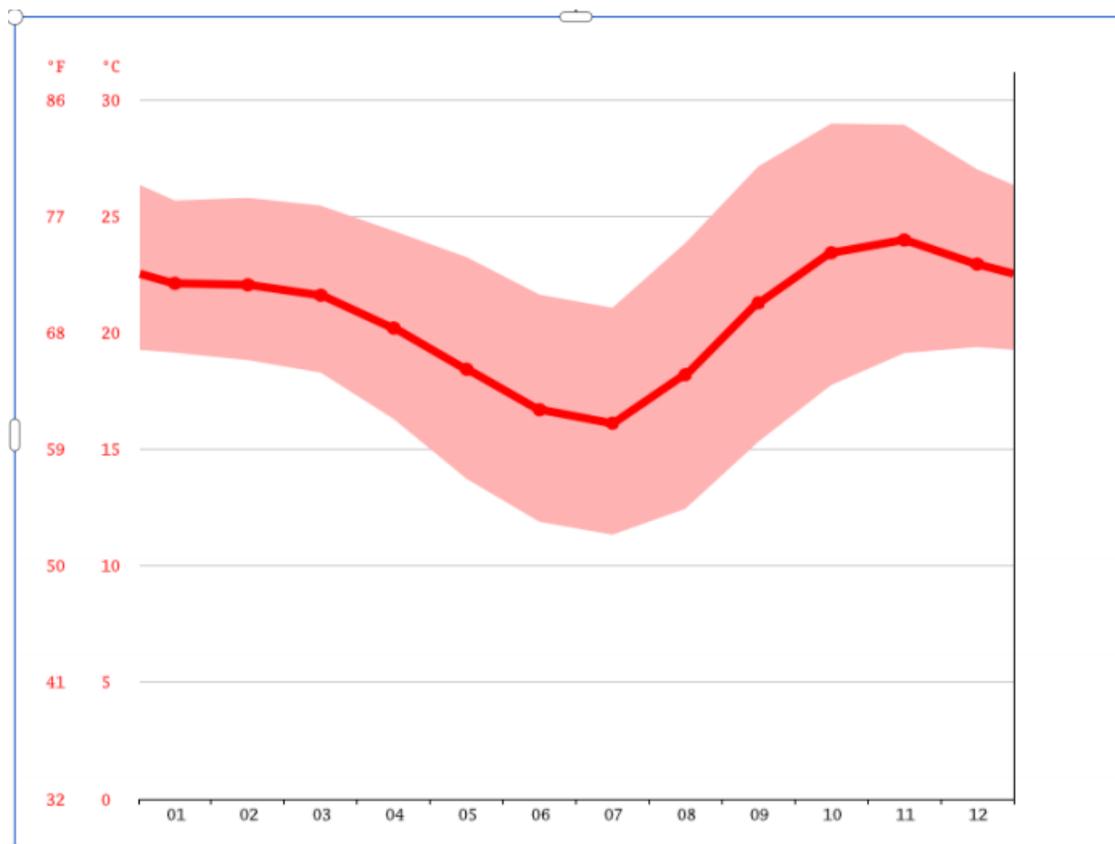


Figure 3: Hottest and Coldest Months in Blantyre

With an average temperature of 24.0 °C | 75.2 °F, November is the hottest month of the year. On average, the month of July is considered to be the coldest time of year with temperatures averaging at around 16.1 °C | 61.0 °F. (1999 to 2019) as indicated in Figure 3.

4.3 Air Quality

The air quality in Blantyre City is within acceptable levels. Nevertheless, it is expected that construction works will trigger air pollution following emissions from fuelled vehicles and machinery to be used within the project construction sites. Furthermore, air quality will also be affected by dust generated by the movement of vehicles and machine operation but periodical sprinkling of water will help to reduce the levels of impact. Use of machinery will generate some noise but since the size of the project is small, this is expected not to last long, (<https://www.iqair.com/malawi/southern-region/blantyre>)

4.4 Disaster Management

Disaster management refers to the systematic approach of preparing for, mitigating, responding to, and recovering from natural disasters. In Blantyre city due to illegal settlement in hilly, mountains and river banks most houses are prone to natural disasters. In

2023, the city was affected with cyclone Freddy which claimed over 1000 lives and displaced many households especially those that illegally constructed houses in hilly areas and close to waterways. As one way of preparedness, the council formulated Ward Disaster Risk Management Committees (WDRMC) represented by various sectors within the ward and City Disaster Risk Management Committee (CDRMC) as an umbrella agency within the city. These committees were trained by Department of Disaster Management Affairs on their roles and responsibilities, and were equipped with relevant knowledge on disaster issues. However, there is need to have strategies in place to mitigate natural disaster, encompass thorough risk assessments, integrating climate-resilient designs and construction standards within the city, establishing emergency response plans, defining roles and responsibilities, and engaging local communities in preparedness efforts. Furthermore, they involve partnerships with local authorities and NGOs, data-driven early warning systems, capacity-building initiatives, and contingency budgeting. Integrated seamlessly with environmental and social considerations, these measures not only mitigate risks but also foster community resilience and ensure sustainable development goals. Maintaining detailed records, transparent reporting, enabling adaptive responses and fostering a culture of preparedness, ongoing evaluation form essential aspects and accountability within the project framework.

4.5 Social-economic Environment

4.5.1 Population and settlement pattern

The City of Blantyre, located within Blantyre District, is not only one of the largest urban centres in Malawi but also serves as the country's commercial capital. Declared a planning area in 1897 by Scottish missionaries, the city has experienced rapid population growth over the decades. According to the 1966 census, Blantyre had a population of 109,461, which grew to 661,256 by 2008 (NSO, 2008). The 2018 Malawi Population and Housing Census recorded the city's population at 879,000, comprising 50.13% males and 49.87% females (NSO, 2019). Projections by the National Statistical Office (NSO) for 2022 estimated the population of Blantyre City at approximately 995,000 (NSO, 2020). Table 5 provides detailed figures on the population and projections for Blantyre.

Table 6: Population and Project Figures for Blantyre, 2012 - 2022

Year	Population	Growth Rate
2022	995,000	3.43%
2021	962,000	3.22%
2020	932,000	2.98%
2019	905,000	2.96%
2018	879,000	2.81%
2017	855,000	2.89%
2016	831,000	2.85%
2015	808,000	2.93%
2014	785,000	2.88%
2013	763,000	2.83%
2012	742,000	2.91%

Source: National Statistics Office 2018

The growth rate is estimated at 3.4 percent between 2018 and 2022. The population of Blantyre represents 5.1 percent of the national population. The average population density is 3,509.93 persons per square kilometre (National Statistical Office, 2018). There are 14 unplanned settlements (aggregated) within the city and five planned low-income housing areas. Over 70 percent of the urban population live in informal settlements, which occupy up to 23 percent of the land in the city.

Table 6 shows population distribution of 2025 in the proposed project locations as predicted by NSO during 2018 census.

Table 7: Population Distribution for Blantyre City

No	School	2024-25 Enrolment	Location	Ward Name	Ward Population
1.	Malabada Primary School	1965	Ndirande	Ndirande-Malabada	34,773.82
2.	Matope L.E.A School	1887	Ndirande	Ndirande-matope	31, 098.82
3.	Chimaliro Primary School	2938	Chigumula	Chigumula-Club banana	36, 306.96
4.	Sigerege Primary School	980	Chilomoni	Chilomoni	26,306. 96

5.	Mbayani 1 L.E.A School	6530	Mbayani	Mbayani Railyway line	30,639.98
6.	Mbayani 2 L.E.A School	2594	Mbayani	Mbayani Railyway line	30.639.98
7.	Mpingwe L.E.A School	3905	Mpingwe	Mpingwe	33,213.16
8.	Chisombezi L.E.A School	3506	Bangwe	Bangwe Ntopwa	30,637.58
9.	Kapeni Demonstration School	7230	Misesa	Kapeni Manje	30,783.60
10	Namatapa L.E.A School	2801	Bangwe	Bangwe Ntopwa	30,637.58

4.5.2 Health facilities and health care services

Blantyre City Council is mandated by the Local Government Act of 1998 to provide health services. Health care services in Blantyre are mainly provided by Queen Elizabeth Central Hospital, which is the largest referral hospital in the city and is run by the government and it is also the main health care service provider for the entire city. Some of the public health facilities operating in Blantyre are Limbe, Zingwangwa, South Lunzu, Chilomoni, Makhetha, Bangwe, Ndirande Health Centres, Chirimba, Makata Health Centres, and Gateway clinics. These health facilities are run by both District Health Office (DHO) and Blantyre City Council. The city also has private health facilities and clinics run by individuals and Churches.

Blantyre registers a number of diseases including cholera, typhoid, tuberculosis (TB), measles, infectious hepatitis, malaria, and HIV and AIDS. Malaria is the leading cause of morbidity and mortality in the City, especially among children under five years old. Malaria accounts for 40 percent of all outpatient visits to health facilities. Pneumonia and diarrhoea are the other leading causes of death in children under five years old. Despite the continuing presence of these diseases, overall, Malawi's health conditions appear to be improving. The proposed construction areas for Public Sanitation Facilities (PSFs) are prone to various health issues, including cholera, malaria, pneumonia, diarrhea, common injuries, chickenpox outbreaks, and HIV/AIDS (Chumo et.al, 2023).

4.5.3 Land Administration

Land in the city is managed by three major landlords, namely: The Commissioner for Lands, Malawi Housing Corporation, and Blantyre City Council. The Commissioner for Lands is responsible for public land which has been subdivided and offered for development under leasehold titles that are usually for 99 years or shorter terms. The Malawi Housing Corporation owns public freehold land for purpose of subdivisions in residential and commercial development in the city. The Blantyre City Council has assumed the administration of Traditional Housing Areas (THAs) and development control in the City.

4.5.4 Main economic activities

Blantyre City serves as Malawi's commercial and industrial hub, with several major industrial and economic zones, including but not limited to Makata, Ginnery Corner, Maselema, Limbe, Chirimba, South Lunzu, Maone, and Chitawira. These industrial areas are largely located along the banks of major rivers and streams, such as the Mudi, Naperi, Limbe, Nasolo, Lunzu, and Chirimba rivers.

It is estimated that Blantyre City contributes approximately 33% of the country's overall employment opportunities, with 19% of those within the Blantyre Central Business District (CBD) and 14% in the Limbe CBD (Blantyre City Council, 2019). The private sector accounts for about 45% of employment, followed by the public sector at 12%, and self-employment at 36%, including over 500,000 informal traders and vendors operating across the city (NSO, 2018). In formal and informal settlements, around 10% of residents are engaged in professional jobs, 4% in clerical roles, 13% as drivers, and 18% in other informal economic activities (Malawi Government, 2020).

Poverty remains a challenge in the city, with about 24% of the population classified as poor and approximately 5% as ultra-poor (NSO, 2020). The lack of access to credit, combined with rising costs of basic goods and high unemployment levels, contributes to economic vulnerability. However, about 50% of residents reportedly access microfinance credit. To address these challenges, Blantyre City Council has designated land for investment purposes and introduced incentives to stimulate business growth and job creation.

Blantyre's diversified and modern economy continues to provide a robust foundation for sustained economic development and offers a wide range of employment opportunities across various sectors

The most important economic sectors in Blantyre City include retail trade, construction, food processing, textile manufacturing, motor vehicle sales and maintenance, and a large informal sector. The informal economy plays a significant role in providing livelihoods for a substantial portion of the population, especially in unplanned and high-density areas. However, this sector operates with minimal regulation, limited institutional support, and inadequate access to formal markets and financial services (Blantyre City Council, 2019).

Despite the city's role as a commercial hub, economic growth is significantly constrained by poor infrastructure, limited or absent basic urban services (such as water, sanitation, and electricity), restricted access to credit, and a lack of competitive entrepreneurial skills. These challenges hinder business expansion and job creation, particularly for Small and Medium-sized Enterprises (SMEs), which form the backbone of local economic activity (Government of Malawi, 2020; UN-Habitat, 2011).

4.5.5. Cultural socio-economic activities

Tribes

The predominant tribes in Blantyre are the Mang'anja and Yao which constitute 60% of the population. The majority of the Yaos are found in TA's Somba, Kapeni, Machinjiri, Makata, Lundu, and Kuntaja, while the majority of the mang'anjas are found in TA's Chigaru and Kunthembwe. The remaining 40% is made up of such tribes as the Lomwe, Ngoni, Sena, Tumbuka and Chewa. The district has also some Malawians of Asian origin.

Languages

The main languages spoken in the rural areas are Chinyanja and Chiyao. Like the rest of the Country, English is the official language in the District.

Culture and Beliefs

Marriage Types

People in Blantyre follow matrilineal type of marriages whereby the man leaves his home and stays at the wife's home. A very small token is paid to parents of the wife.

Traditional Practices

In some parts of the district, boys and girls undergo initiation ceremonies when they reach the right age. Approved counsellors conduct these ceremonies. At these initiation ceremonies,

the initiates are advised on how to live with the elders and what role they are going to perform as adults. Among the Yao tribe, girl initiates are advised to prepare for practical activities of married life. This in one way or the other encourages girls to engage in premarital sex thereby increasing chances of catching HIV and AIDs and Sexually Transmitted Infections (STIs).

Dances

Blantyre has its own dances. The commonest dances are: Lupanda, Gulewamkulu, and Likwata. Other dances include Chindimba, Manganje and Ngoma.

Religion

There are many religions in the district. The major religion in the district is Christianity which constitutes 90% of the population. Islam constitutes 8% of the population. 1% of the population belongs to other religions including Buddhism and Hinduism, more especially among the Asian community. However, 1% of the population has no religion (Blantyre District Council Socio-Economic Profile 2017-2022).

4.5.6 Health situation and HIV and AIDS prevalence

Blantyre has a lot of people from different areas with diverse interests and health concerns. Most of these people go to the city with different types of diseases, others are referred from Blantyre rural health centres to Blantyre urban main hospitals such as Queen Elizabeth Central Hospital, Mwaiwathu Private Hospital and Blantyre Adventist Hospital.

Among Malawi's major urban centres, Blantyre City has the second highest HIV prevalence rate, estimated at 15.2%, following Zomba City which has the highest at 19.6% (UNAIDS, 2022). Approximately 89,639 people are living with HIV in Blantyre, with 93% of them aware of their HIV status. The city records an estimated 2,055 new HIV infections annually, 75% of which occur within the city boundaries (Blantyre City Council, 2023).

Key drivers of the HIV epidemic in Blantyre include poverty, overcrowding, urban migration, and the presence of key and vulnerable populations, such as sex workers and mobile workers. The situation has been exacerbated by public health emergencies such as the COVID-19 pandemic and Tropical Cyclone Freddy, both of which disrupted HIV service delivery, displaced populations, and strained healthcare systems.

While antiretroviral therapy (ART) coverage stands at 91%, the city still faces challenges in identifying new HIV-positive individuals, retaining people living with HIV (PLHIV) in care, and scaling up viral load monitoring. To respond to these challenges, the Blantyre City Strategic Plan, developed under the Fast Track Cities Initiative by UNAIDS and IPAC (Infection Prevention and Control), serves as a blueprint to accelerate the city's HIV response and achieve the 95-95-95 targets.

4.5.7 Education

Literacy is defined as the ability to read and write in any recognized language. For this analysis, a person is considered literate if they can read and write in Chichewa, English, or any other language. Literacy levels in Blantyre reveal a gender disparity: approximately 76% of males are literate, compared to 50% of females (NSO, 2018).

Education services in Blantyre City are predominantly provided by the government through Blantyre Urban Education Division, which falls under the Blantyre City Council. This division is committed to delivering quality and relevant education that equips learners with the necessary knowledge, skills, and competencies to contribute meaningfully to national development.

Blantyre City has a total of 63 public primary schools and 219 private primary schools. Within the public schools, there are 1,133 classrooms serving a population of 153,351 learners—76,149 boys and 77,202 girls. The teaching workforce includes 2,397 teachers, with a significant gender imbalance: 2,107 female teachers and 290 male teachers. This translates into a pupil-to-teacher ratio of 64:1, indicating high classroom congestion and teacher workload.

The city also has 29 public secondary schools, comprising 21 Community Day Secondary Schools (CDSS) and 5 conventional secondary schools. Among the conventional schools, one is a girls' national boarding secondary school, while three operate on a double-shift day basis, and one is a regular day school. Combined enrolment for public secondary schools stands at 27,553 students, consisting of 13,555 boys and 13,998 girls.

Despite high enrolment figures, challenges persist, including overcrowded classrooms, inadequate infrastructure, and teacher shortages—factors that continue to affect education quality and learning outcomes.

4.5.8 Waste management and Sanitation

BCC oversees waste management in the city. The Cleansing Services within the BCC's Department of Health and Social Services is responsible for waste collection and disposal. Waste management is largely focused towards planned areas. The informal urban areas, which include over 70 percent of the urban population, have little access to waste management services provided by the BCC, mostly serving the markets. Solid Waste Management in Blantyre City mainly involves primary collection, secondary collection and final disposal. Apart from the conventional system in managing solid waste stated above, there are some efforts to manage solid waste through resource recovery initiatives such as recycling, composting and waste to energy. Primary collection includes street and market cleansing, solid waste capture and containment. While secondary collection involves emptying and transportation of the solid waste from the containment sites to the final disposal site. At the final disposal site, solid waste is mostly disposed of unsegregated and thereafter it is periodically spread and compacted using machinery particularly the bulldozer. On daily activities the council base its planning on the fact that 70% of the residents in the city live-in high-density areas and that the waste generation rate is pegged at 475 tons/day. Primary solid waste collection is a labour-intensive activity. The Council has an average of 800 employees responsible for solid waste management distributed in four (4) cleansing depots (zones), namely Blantyre, Limbe, Ginnery Corner and Soche. Tools provided for the primary collection of solid waste include local brooms, rakes, shovels, digging forks and wheelbarrows.

Collected solid waste is finally disposed of at Mzedi Dumpsite which is located some 5.5 km north of Limbe town, along the Blantyre Zomba Road soon after Kachere Township. Mzedi dumpsite has a total area of about 23 hectares (including the buffer zone). It was established around 1992 and was designed as an open dumpsite where there are no mechanisms for the treatment of leachate and gaseous waste produced from the solid waste decomposition processes. Spreading and compaction of refuse at the dumpsite is done periodically by hired machinery in an effort to manage the available dumping space.

4.5.9 Services

i. *Water Supply*

The Blantyre Water Board (BWB) is the statutory body mandated to supply potable water to Blantyre City and its surrounding areas, serving an estimated population of 1,400,000, based on projections from the 2018 Population and Housing Census (NSO, 2018). This population is expected to continue growing rapidly due to factors such as rural-to-urban migration, spatial expansion of the city into peri-urban zones, a high birth rate, and a decline in mortality associated with improved health services.

BWB's current production capacity has risen to 122 million litres per day, largely due to enhancements at Mudi Treatment Works and Likhubula Water Supply System, which contribute 6 million litres and 20 million litres per day, respectively. Additionally, the construction of four new water storage reservoirs has expanded the Board's total storage capacity from 77.5 million litres to 97.5 million litres, improving water availability and supply reliability across the network.

This increased production and storage capacity have led to more consistent water flow across the city's supply area. Pipes that previously remained dry are now continuously conveying water, increasing service coverage. However, the existing water distribution infrastructure presents significant challenges. A substantial portion of the network comprises asbestos cement (AC) pipes, many of which were installed over 50 years ago. These aged pipelines are highly susceptible to pressure fluctuations and are no longer structurally sound, leading to frequent bursts and leakages, contributing to high levels of non-revenue water (NRW).

To address these challenges, urgent investment in pipeline replacement, network modernization, and pressure management systems is required to reduce losses and enhance overall water supply efficiency.

ii. *Electricity*

The main sources of energy in Blantyre City include electricity, fuelwood (firewood and charcoal), and paraffin. The Electricity Supply Corporation of Malawi (ESCOM) is the primary provider of grid electricity to most urban areas within the city. However, only 26% of households are connected to the electricity grid, indicating limited access, particularly in informal and low-income settlements (NSO, 2019; Blantyre City Council, 2023).

The city's electricity infrastructure is aged and deteriorating, leading to frequent power outages, voltage fluctuations, and increased maintenance costs. Furthermore, the high cost of electricity renders it inaccessible to the urban poor, further widening energy access inequality.

As a result, approximately 80% of the city's population rely on fuelwood—mainly charcoal and firewood—for cooking, heating, and, in some cases, lighting (National Charcoal Strategy, 2017). This high dependence on biomass energy contributes significantly to deforestation in surrounding forest reserves and hills. Additionally, there is high demand for firewood for brick curing, especially in expanding peri-urban areas.

Solar energy, though present, remains a minor alternative energy source. It is mostly adopted in medium- to high-income residential areas and institutional facilities, while uptake among low-income households remains minimal due to the initial cost of installation and limited awareness.

Blantyre's energy profile highlights the urgent need for energy diversification, modernization of power infrastructure, and promotion of affordable renewable energy options, especially for low-income communities, to reduce environmental degradation and enhance energy access equity.

iii. *Security*

The Malawi Police Service (MPS) is the primary provider of security in Blantyre City and within the project area. The MPS operates as an independent organ of the Government of Malawi, with its mandate derived from Sections 152 and 153 of the Republican Constitution, which emphasize public safety, law enforcement, and the protection of life and property.

In addition to state security services, private security firms operate in the city, offering guarding and surveillance services to individuals, businesses, and institutions willing to pay for such services. These services are especially common at commercial properties, residential compounds, and institutional facilities.

Blantyre City and District Councils also contribute to public safety through collaborative initiatives, including community policing and patrols, aimed at creating a secure and orderly environment.

Despite the proximity of many schools and public institutions to police stations, the city still experiences incidences of theft, vandalism, and petty crime. Common crimes include stealing of farm produce, household items, and acts of vandalism targeting public infrastructure.

Given this security context, the project must integrate appropriate security measures to protect assets and ensure operational continuity. Recommended actions include:

- Installation of perimeter fencing around critical infrastructure.
- Deployment of security personnel, especially in vulnerable or high-value areas.
- Establishing a strong rapport with local communities, fostering a sense of shared responsibility for site security.
- Encouraging community-based surveillance and timely reporting of suspicious activities to relevant authorities.

These measures will enhance overall safety, reduce the risk of asset loss, and promote cooperation between the project and local stakeholders.

iv. *Transport*

The most common means of public transport in Blantyre are minibuses, motor cycles and taxis. Buses operate on long and inter-city routes. In an attempt to mainstream the transport sector in Blantyre, there are minibus terminals in Mibawa and Limbe managed by BCC in collaboration with Minibus Owners Association of Malawi (MOAM). Blantyre city experiences high amounts of traffic congestion following increased number of motor vehicles in the city. Motor cycles are preferred in short distances and fastness specially to avoid traffic congestion. Improvements required in the transport network include provision of pedestrian and cyclists pathways, construction of adequate bypass roads, construction of three highway roads, improve on train transport service and provision of bus lay-bys.

v. *Telecommunications and Postal Services*

In terms of communication, the proposed project sites have access to networks from TNM and Airtel Malawi, though some places network is weak. The sites also has signal of major radio and television stations in Malawi through FM transmission and digital satellite

television transmission. Some of the radio stations include MBC radio 1, MBC radio 2, Times radio, Joy radio, Zodiak broadcasting station, which include Zodiak TV, Times TV, MBC TV, and many more. Communication is vital for information transfer or exchange at the same time educative, Radios and TVs tend to have a wide coverage other than other forms of media. This means that communities can be reached either through phones, radios, TVs and Sensitizations through mega mics and meetings.

The public post office which is operated by the Malawi Posts Corporation. There are several privately owned postal and courier service companies involved in local and international express mail delivery. These include Ampex Courier, Speedys, DHL Express and Group 4 and Pony Express. Some of these companies have offices within Blantyre City and their services will be readily available to the PSFs construction and works in times of need.

vi. ***Religion***

The population within the project area is predominantly composed of followers of Christianity (81%) and Islam (19%), reflecting the national religious distribution trends (NSO, 2019). The dominant Christian denominations in the area include the Roman Catholic Church and the Church of Central Africa Presbyterian (CCAP).

Despite religious differences, both Christian and Muslim communities coexist peacefully and actively participate in local development activities, community meetings, and public programs. The area is characterized by strong interfaith harmony, with residents from all religious backgrounds engaging collaboratively in socio-economic initiatives and promoting inclusive development.

CHAPTER 5 : IDENTIFICATION AND ANALYSIS OF IMPACTS

This chapter outlines the project's anticipated positive and negative effects, encompassing both direct and indirect impacts on each environmental and social aspects within the project sites. It examines the methods employed for impact prediction and the criteria applied to assess the severity and significance of these impacts. The chapter summarizes the most significant impacts and presents proposed measures to prevent, diminish, and/or control them.

5.1 Impact identification

The environmental assessment examined the potential environmental effects associated with the proposed project's physical works and activities, including anticipated environmental changes resulting from its implementation. The assessment began with a scoping process to identify key environmental issues and to select Valued Environmental Components (VECs)—components of the environment that are considered important by society and upon which the environmental assessment focuses.

VECs represent key natural, social, or cultural elements that may be affected by the project and are essential for environmental sustainability and community well-being. The identification of VECs was guided by the anticipated interactions between project activities (both planned and unplanned) and environmental resources or receptors, across all project phases: planning and design, construction, and operation.

The assessment also considered cumulative environmental effects, including:

- Past, present, and reasonably foreseeable future projects that may interact with the proposed development.
- Environmental changes that could influence the project, such as natural disasters or climate-related factors.

Using this framework, a Potential Interaction Matrix was developed (refer to Table 6) to illustrate and screen likely cause-effect relationships between project activities (horizontal axis) and VECs (vertical axis). This method ensures a structured approach to evaluating environmental risk and identifying significant impacts that require mitigation or enhancement measures.

Table 8: Potential Impact Interaction Matrix

Receptor Component		Anticipated Environmental and Social Impacts																								
		Occupational Safety and Health	Risk of infectious and communicable diseases	Risk of Forced Labour	Risk of child labour	Impact of economy and livelihood	HIV and AIDS	Risk of GBV SEA and SH Harassment	Resource Consumption	Soil contamination	Air Quality & Fugitive Emissions	Noise and Vibration	Water Contamination	Land Degradation	Increased waste generation	Provision of Education Services	Conflict on use of Amenities	Traffic & Road Safety Risks	Increase in theft and vandalism	Community Health and Safety	Forced eviction	Involuntary Resettlement	Impact on Flora	PAP awareness of project	Community Grievance Redress	Occupational Safety and Health
SN	Project activity/Hazard																									
1	Planning Phase																									
1.1	Design of Proposed Structures																									
2	Construction Phase																									
2.1	Land Take and Land Clearance																									
2.2	Excavation and Civil Construction																									
2.3	Equipment/Material/Worker Transport																									
2.4	Waste Storage and																									

5.2 Environmental and social impacts arising from project activities

5.2.1. Potential Positive Impacts of the Project

Impacts during Planning and Design Phase

5.2.1.1. Increased employment opportunities

During the planning phase, the developer will employ people to undertake various studies for the planning of the project, develop detailed project designs and carry out an environmental and social assessment of the proposed site.

Enhancement measures:

- i. Maximise employment of professionals registered with relevant Malawian institutions and authorities.
- ii. Advertise employment opportunities through multiple outlets.
- iii. Give equal employment opportunities to both men and women (60% and 40%).

Positive impacts during the Construction Phase

5.2.1.2. Increased employment opportunities

The construction phase will provide employment (both skilled and unskilled) to people in the proposed sites including men, women, youth and the vulnerable from the surrounding communities.

Enhancement measures:

- i. Prioritize employment of people (including youth) from project areas.
- ii. Maximise use of local labour (skilled and unskilled).
- iii. Advertise employment opportunities through outlets including District Labour Office.
- iv. Provide equal employment opportunities to men and women (60% and 40%)

5.2.1.3. Availability of market for supply of construction materials and services

The construction works will require materials such as cement, quarry stones, sand, timber and steel reinforcements. Most of these will be sourced from suppliers within Blantyre. The project is anticipated to result in the increase and availability of a market for supply of construction materials, thereby increasing income for material and service providers. Local retail businesses are also expected to witness indirect economic benefits through the multiplier effect resulting from expenditures on construction related activities.

Enhancement measures

- i. Source materials from licensed suppliers.
- ii. Pay suppliers within agreed timeframes.
- iii. Encourage local suppliers to stock quality products.

5.2.1.4. Creation of temporary market for goods and services

It is anticipated that the labour force will create a demand for local produce and goods (firewood, maize, relish, fruits, groceries etc.) and services such as transport. The people in the project area of impact will be selling food to construction workers, which will improve their incomes hence improved livelihood.

Enhancement measures:

- i. Sensitize traders to improve quality of goods/services and maintain hygienic vending areas.
- ii. Encourage proper stock management
- iii. Inform women and youth of business opportunities.
- iv. Encourage workers to pay promptly for goods/services

5.2.1.5. Generation of revenue for government from taxes and levies

Construction activities will involve recruitment of a Contractor to perform various construction related jobs. In turn, the contractors will be required to remit taxes and levies as per government regulations. These include work registration fees, income tax, and pay as you earn tax for employees among others. The contractor will also purchase materials, which also

attract taxes and fees. These taxes will boost government revenue, which is vital provision of various services in the country.

Enhancement measures

- i. Purchase from suppliers with valid tax registration.
- ii. Register project and employees with relevant institutions.
- iii. Remit taxes and levies on time.
- iv. Request VAT receipts when purchasing.

5.2.1.6. Improved knowledge and skills transfer among workers

Employment of local people from within the projects area of impact will facilitate capacity enhancement and the acquisition of specific skill sets through on the job and formal training. These skill sets may then be readily replicated after employment termination in other construction related projects.

Enhancement measures:

- i. Maximise local employment (particularly unskilled).
- ii. Pair skilled and unskilled workers deliberately.
- iii. Formalise on-the-job training with targets and monitoring.

Positive impacts during Operation Phase

5.2.1.7. Access to improved sanitation facilities

The sanitation facilities are expected to improve overall community health and reduce disease transmission.

Enhancement measures:

- i. Ensure adequate staff and proper work schedules.
- ii. Regularly inspect and repair septic tanks.
- iii. Maintain facilities to prevent overflows.
- iv. Sensitize users through IEC materials.

5.2.1.8. Improved sanitation, hygiene and health of learners

The availability of clean and well-maintained sanitation facilities will significantly reduce the incidence of hygiene-related diseases among students. Healthier students will experience fewer illnesses, promoting consistent attendance and enhancing their ability to concentrate and perform academically.

Enhancement measures:

- i. Integrate hygiene education campaigns into school programs.
- ii. Maintain sanitation facilities per strict schedules.

5.2.1.9. Increased School Attendance

By providing gender-segregated and safe sanitation facilities, the project will encourage higher attendance, particularly among girls. Access to appropriate facilities helps mitigate barriers that often prevent girls from attending school regularly, especially during menstruation.

Enhancement measures:

- i. Introduce complementary programs such as school hygiene clubs and sanitation ambassadors among learners to promote ownership and responsibility for the facilities.

5.2.1.10. Reduced incidences of water borne diseases

By constructing the PSF, the beneficiaries will have unrestricted/unlimited access to improved sanitation facilities which will reduce open defecation thereby reduce incidence of emergencies like cholera.

Enhancement measures:

- i. Conduct regular maintenance of sanitation facilities.
- ii. Educate the learners on important health issues, information and awareness campaigns can be carried out to promote proper hygiene practices, disease prevention and the importance of using the sanitation facility correctly.

5.2.1.11. Enhanced Privacy and Dignity

The PSFs in schools will be gender-segregated and well-maintained facilities will provide students with privacy and dignity, fostering a positive school environment. This will

contribute to the emotional well-being of students and reduce incidences of embarrassment or discomfort related to inadequate sanitation.

Enhancement measures:

- i. Install security locks, proper lighting, and partitions.
- ii. Regularly maintain and clean facilities.
- iii. Involve learners in feedback mechanisms

Positive impacts during Demobilization Phase

5.2.1.12. Improved visual appearance.

Demobilisation will involve removing construction equipment and site holding fence, clearing and cleaning the site, making it ready for operation activities. This is expected to improve the visual appearance of the site.

Enhancement measures;

- i. Safely dispose of construction wastes in approved areas.
- ii. Remove all debris.

5.2.1.13. Reduced occupational health and safety risk

After completion of construction works, the contractor's workers, students and the local communities will have reduced exposure to safety and health risks associated with the construction works including equipment. In addition, there will be minimal / or no direct contact between contractor's workforce and community members and this will eventually minimise health risks including transmission of diseases.

Enhancement measures;

- i. Adhere to health and safety guidelines.
- ii. Raise awareness among learners and communities

5.2.2. Potential Negative Impacts of the Project

Negative impacts during Planning and Design Phase

During this phase, negative impacts often emanate from land acquisition and changes in land use. For this project, the land is already a government land parcel allocated to the schools; hence, no significant negative impacts have occurred, or are anticipated.

Negative impacts during the Construction Phase

5.2.2.1. Loss of trees and vegetation cover

Most sites identified have minimal trees and vegetation and therefore the project is not expected to have insignificant impacts on vegetation. In cases where the construction activities will result into removal of vegetation, contractors are required to revegetate the sites on a ratio of 1:10 trees space permitting and landscaping.

Mitigation measures:

- i. Limit clearance strictly to demarcated areas.
- ii. Replace affected trees through planting.
- iii. Implement post-planting care for planted trees

5.2.2.2. Increased risk of Soil erosion and dust pollution

Soil erosion will be induced by soil disturbing activities such as excavations, land clearing and grabbing, vehicle movement and piling of soils.

Mitigation measures:

- i. Restrict land clearing to construction site.
- ii. Backfill and compact excavated areas immediately.
- iii. Stockpile excavated soil away from excavated area
- iv. Spray water on loose soil during construction.
- v. Plant vegetative cover after completion of construction works

5.2.2.3. Increased risk of soil contamination

Fuel and oil leaks from construction plants and vehicles; spills from vehicle maintenance operations; and spills from waste oil containers discarded from plants and vehicle maintenance during construction activities may result in soil contamination. The impact may also occur from paints and solvents and pesticides used for treatment of foundation and construction materials, where they are sprayed on spilled on soils.

Mitigation measures:

- i. Surface all servicing/fuel areas with impervious materials.
- ii. Use environmentally friendly chemicals where possible.
- iii. Employ trained staff for handling hazardous materials.
- iv. Spray pesticides only in required areas.
- v. Use lined surfaces for painting.
- vi. Separate, contain, and dispose waste oils properly.

5.2.2.4. Increased generation of solid waste

Various construction activities are expected to generate many types and varying quantities of wastes that include construction rubble from demolition and general waste.

Mitigation measures:

- i. Provide containers for segregation and easy collection.
- ii. Remove waste bins promptly.
- iii. Encourage reuse of cartons/containers.
- iv. Dispose waste appropriately at designated sites.

5.2.2.5. Increased risk of dust emissions

Potential significant dust generation is anticipated to occur during construction due to site preparation activities including excavations and offloading constructing materials especially sand, gravel and sand. Dust generation degrades air quality and may cause respiratory disorders. Dust can also cause nuisance problems when re-deposited on clothes and surfaces and can hinder visibility. The impact will mainly be felt on site; however, fine particles may also be lifted from exposed surfaces by the action of wind.

Mitigation measures

- i. Store sand/cement in covered areas.
- ii. Control vehicle speeds and install signs/humps.
- iii. Sprinkle water on earth roads.
- iv. Handle sand/cement properly to limit dust.
- v. Provide PPE (masks, goggles) to workers

5.2.2.6. Increased generation of sanitary waste

Presence of construction workers at the project sites will increase generation of sanitary waste. It is anticipated that mobile toilets will be used in school sites throughout the construction period. Potential impacts associated with the mismanagement of the sanitary waste will be transmission of diseases associated with poor sanitation and hygiene that will have adverse impacts on health of general public.

Mitigation measures:

- i. Provide adequate mobile toilets.
- ii. Conduct routine monitoring and cleaning.
- iii. Periodically empty toilets.
- iv. Train workers on proper use

5.2.2.7. Increased risk of noise generation

A significant increase in noise will be generated through the use of machinery and equipment as well as the presence of workers.

Mitigation measures:

- i. Use modern machines fitted with silencers.
- ii. Regularly service equipment.
- iii. Install hoarding fence at all sites.
- iv. Notify communities in advance of noisy activities.
- v. Provide ear protection PPE to workers.

5.2.2.8. Increase in other labour related risks

During construction there can be increase in labour-related risks arises from changing work conditions, economic pressures, and regulatory gaps, leading to heightened challenges for workers. These include physical risks from inadequate safety measures, increased stress and mental health issues due to excessive workloads and job insecurity, and economic strain from wage stagnation.

Mitigation measures:

- i. Employ people from within the area.
- ii. Provide suitable working conditions i.e. Safe drinking water and sanitary facilities
- iii. Paying worker's above minimum wage.

- iv. Have in place a worker's grievance redress committee at each site
- v. Sensitize workers about their labour rights.

5.2.2.9. Increased risk to community health and safety

The construction works will involve the movement of vehicles carrying various construction materials, this will increase traffic in the project area that may lead to high probability of accidents occurring.

Mitigation measures:

- i. Enforce a Traffic Management Plan.
- ii. Barricade sites and provide signage.
- iii. Introduce speed limits.
- iv. Conduct inductions for workers, schoolchildren, and community.

5.2.2.10. Increased occupational safety and health risks of the workers

Workers involved in construction works will be exposed to various occupational risks as the project activities will bring about hazards such as machinery and equipment and there is the potential increased safety and health risk of the workers because of the following:

- Exposure to noise and vibrations.
- Slips, trips and falls.
- Exposure to dust including cement dust and vehicle emissions.
- Drinking contaminated water and inhaling polluted air.
- Accidents from vehicles and machinery at the site and along the roads.
- Exposure to chemicals.

Mitigation measures

- i. Restrict access with fencing and signage.
- ii. Provide OHS training and orientation.
- iii. Supply PPE and first aid kits.
- iv. Train workers on lifting and handling.
- v. Check/control noise, dust, fumes.
- vi. Provide safe drinking water and sanitation.
- vii. Conduct daily safety talks.

- viii. Implement good housekeeping practices.

5.2.2.11. Increased incidences of child labour

The impact of child labour exploitation in the project area is expected to be medium-term during this phase. Child labour may not necessarily be in the form of full-time employees, but may involve the seasonal workers, who are difficult to account for. This calls for the proposed project to take serious measures to control and monitor that this does not happen in the proposed project areas.

Mitigation measures:

- i. Verify age of workers via IDs.
- ii. Inspect sites regularly for child labour.
- iii. Collaborate with City Labour Office.
- iv. Sensitize leaders, children, and community.
- v. Display warning posters.

5.2.2.12. Increased risk of cases of SEA, Sexual Harassment and Gender Based Violence

Construction workers will have extra disposable income that may lead to Gender Based Violence/SEA/SH.

Mitigation measures:

- i. Develop/enforce code of conduct with punitive measures.
- ii. Implement GBV/SEA plan.
- iii. Institute grievance redress mechanisms.
- iv. Provide separate facilities for men/women.
- v. Train workers/GRCs, conduct community sensitization.
- vi. Display IEC materials.

5.2.2.13. Increased risk of spread of HIV and AIDS and STI's

Interactions between workers and the communities and even amongst themselves can increase the likelihood of spreading HIV and AIDS and other Sexually Transmitted Infections.

Mitigation measures:

- i. Conduct community awareness/support programmes.
- ii. Collaborate with authorities to stop influx of prostitutes/job seekers.
- iii. Encourage medical check-ups and treatment.
- iv. Place condom boxes at strategic sites.
- v. Allow workers home visits.

5.2.2.14. Increased risk of theft

It is anticipated that there will be a likelihood of increased cases of theft of construction related equipment and materials in the proposed project site. This will potentially involve workers and members from the surrounding communities and possibly beyond. The impact is expected to be high considering the current economic hardships across the country.

Mitigation measures;

- i. Employ appropriate security guards.
- ii. Support community policing (whistles, airtime).
- iii. Include policing officers in grievance committees.

5.2.2.15. Disturbance of traffic along the access roads leading to the construction site

Construction equipment and materials will have to be transported to the Project site. It is expected that heavy traffic will increase for the duration of the construction phase. Construction vehicles and vehicles accessing the proposed site premises may disturb the flow of traffic along the main road as well as secondary roads from which they tap access.

Mitigation measures;

- i. Fence all work sites.
- ii. Provide safe passages/detours.
- iii. Restrict speeds to 20km/h with road signs.
- iv. Record entry/exit and prevent unauthorized access.

Negative impacts during the Operation and Maintenance Phase

5.2.2.16. Increased risk of vandalism

There is potential risk of vandalism of PSFs by surrounding communities.

Mitigation measures

- i. Install protectors at entrance points (doors, windows).
- ii. Provide security guards.

- iii. Develop bylaws to curb vandalism.
- iv. Sensitize communities.

5.2.2.17. Increased generation of solid waste

Operation and maintenance phase activities will generate waste comprising mainly food waste, plastic, and wastepaper. Waste requiring treatment or disposal could include organic waste, domestic wastes that contain chemicals or other solid wastes which cannot be reused.

Mitigation measures:

- i. Provide bins and skips.
- ii. Ensure timely collection and proper disposal.
- iii. Train the user fee collectors on solid waste management.
- iv. Use information signs to sensitize proper disposal.

5.2.2.18. Increased risk of pollution from liquid waste

The PSFs are expected to generate liquid waste. Environmental pollution may occur when there are overflows through manholes or broken pipes.

Mitigation measures:

- i. Regularly check plumbing, waste screens, manholes.
- ii. Sensitize students to proper use of drainage.
- iii. Avoid disposing hazardous chemicals in sewage.

Negative impacts during the Demobilization Phase

5.2.2.19. Increased dust generation

Demobilization activities will include cleaning the site, making it ready for the operation activities. It will also involve the collection and disposal of wastes. All these activities are expected to generate dust and particulate matter.

Mitigation measures:

- i. Spray water on activity areas.
- ii. Handle/transport waste in controlled manner.
- iii. Enforce speed limits.
- iv. Provide PPE for dust-generating tasks.

5.2.2.20. Loss of jobs due to completion of construction works.

At the end of construction works, temporary employment of workers will have to be terminated and this will result in loss of jobs.

Mitigation measures

- i. Pay severance benefits.
- ii. Give adequate notice to workers.
- iii. Sensitize workers/community to save income.

5.2.2.21. Increased generation of waste

At the end of construction and rehabilitation works some of the temporary structures will be demolished as such there will be an increase in solid wastes such as rubble. Refer to APPENDIX 3: CONSTRUCTION WASTE MANAGEMENT PLAN

Mitigation measures

- i. Disposal of waste at designated site; and
- ii. Use rubble to rehabilitate access roads and degraded areas in the project area.

5.2.2.22. Increased risk of abandonment of excavated areas for raw materials

There is the potential risk of abandonment of excavated areas for raw materials, without rehabilitating them, after the construction works. Excavation may result in heaps of earth or quarry and borrow pits that may degrade the environment. The borrow pits may also be a death trap to wildlife and students. In addition, pits create unsightly conditions and they can be breeding grounds for mosquitoes; pits can change the ecosystem.

Mitigation measures:

- i. Rehabilitate all work sites
- ii. Fill up and close pits after the construction works
- iii. Avoid making deep pits during the construction period.
- iv. Source construction materials e.g., sand and quarry from licensed suppliers

CHAPTER 6 : ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN AND MONITORING PLAN

6.1 Environmental and Social Management and Monitoring Plan

The ESMP serves as a guide for addressing and managing environmental and social impacts throughout the project's lifecycle. It lays out practical measures to mitigate identified impacts and specifies the monitoring activities necessary. Covering environmental impacts, mitigation strategies, monitoring plans, and institutional measures, the ESMP aims to prevent, minimize, or eliminate adverse effects during project implementation and operation. The collaboration of various stakeholders is crucial for the success of the ESMP, as they play a key role in implementing the outlined measures. As a dynamic document, the ESMP can be updated as needed during project implementation to ensure the proposed measures remain both feasible and effective.

Table 7 offers a clear and organized presentation of the proposed environmental management plan. It establishes a transparent connection between predicted negative impacts and the corresponding mitigation measures. Simultaneously, it illustrates the correlation between recommended mitigation actions, the allocated budget for these activities, and the stakeholders responsible for their implementation. Furthermore, the plan outlines the recommended timeline for executing these mitigation measures throughout the project cycle

Table 9: Environmental and Social Management Plan for PSTs in Schools

ID	Potential Impact	Recommended enhancement/mitigation measure	Schedule for implementation	Responsible institution	Implementation Cost (MWK)
1.	ENHANCEMENT MEASURES FOR BENEFICIAL IMPACTS				
1.1.	Planning and Design Phase				
1.1.1.	Increased employment opportunities	<ul style="list-style-type: none"> • Maximise employment of professionals registered with relevant Malawian institutions and authorities. • Advertise employment opportunities through multiple outlets. • Give equal employment opportunities to both men and women (60% and 40%). 	Throughout planning and design phase	Consultants and Contractors	Covered in project cost
1.2.	Construction phase				
1.2.1.	Increased employment opportunities	<ul style="list-style-type: none"> • Prioritize employment of people (including youth) from project areas. • Maximise use of local labour (skilled and unskilled). • Advertise employment opportunities through outlets including District Labour Office. • Provide equal employment opportunities to men and women (60% and 40%). 	Throughout construction phase	Contractor	MWK1,000,000.00 for advertising employment opportunities.

ID	Potential Impact	Recommended enhancement/mitigation measure	Schedule for implementation	Responsible institution	Implementation Cost (MWK)
1.2.2	Availability of market for supply of construction materials and services	<ul style="list-style-type: none"> • Source materials from licensed suppliers • Pay suppliers within agreed timeframes. • Encourage local suppliers to stock quality products. 	Throughout construction phase	Contractor	N/A
1.2.3.	Creation of market for local goods and services	<ul style="list-style-type: none"> • Sensitize traders to improve quality of goods/services and maintain hygienic vending areas. • Encourage proper stock management • Inform women and youth of business opportunities. • Encourage workers to pay promptly for goods/services 	Throughout construction phase	Contractor	MWK1,000,000.00

ID	Potential Impact	Recommended enhancement/mitigation measure	Schedule for implementation	Responsible institution	Implementation Cost (MWK)
1.2.4.	Generation of revenue for government from taxes and levies	<ul style="list-style-type: none"> • Purchase from suppliers with valid tax registration. • Register project and employees with relevant institutions. • Remit taxes and levies on time. • Request VAT receipts when purchasing. 	Throughout construction phase	Contractor	N/A
1.2.5.	Improved knowledge and skills transfer among workers	<ul style="list-style-type: none"> • Maximise local employment (particularly unskilled). • Pair skilled and unskilled workers deliberately. • Formalise on-the-job training with targets and monitoring. 	Throughout construction phase	Contractor	MK1, 600, 000.00
1.3.	Operation and Maintenance Phase				
2.2.1.	Access to improved sanitation facilities	<ul style="list-style-type: none"> • Ensure adequate staff and proper work schedules. • Regularly inspect and repair septic tanks. • Maintain facilities to prevent overflows. • Sensitize users through IEC materials. 	Ongoing	Client	MK9,000,000.00

ID	Potential Impact	Recommended enhancement/mitigation measure	Schedule for implementation	Responsible institution	Implementation Cost (MWK)
2.2.2.	Improved sanitation, hygiene and health of learners	<ul style="list-style-type: none"> • Integrate hygiene education campaigns into school programs. • Maintain sanitation facilities per strict schedules. 	Ongoing	Client	MK8,000,000.00
2.2.3.	Increased School Attendance	<ul style="list-style-type: none"> • Introduce complementary programs such as school hygiene clubs and sanitation ambassadors among learners to promote ownership and responsibility for the facilities. 	Ongoing	Client	MK9,000,000.00
2.2.4.	Reduced incidences of water borne diseases	<ul style="list-style-type: none"> • Conduct regular maintenance of sanitation facilities. • Educate the learners on important health issues, information and awareness campaigns can be carried out to promote proper hygiene practices, disease prevention and the importance of using the sanitation facility correctly. 	Ongoing	Client	MK9,000,000.00
2.2.5.	Enhanced Privacy and Dignity	<ul style="list-style-type: none"> • Install security locks, proper lighting, and partitions. • Regularly maintain and clean facilities. • Involve learners in feedback mechanisms 	Ongoing	Client	MK5,000,000.00

ID	Potential Impact	Recommended enhancement/mitigation measure	Schedule for implementation	Responsible institution	Implementation Cost (MWK)
1.4	Demobilization Phase				
1.4.1	Improved visual appearance	<ul style="list-style-type: none"> • Safely dispose of construction wastes in approved areas. • Remove all debris. 	Throughout demobilization phase	Contractor	N/A
1.4.2	Reduced occupational health and safety risk	<ul style="list-style-type: none"> • Adhere to health and safety guidelines. • Raise awareness among learners and communities 	Throughout demobilization phase	Contractor	To be included in Contractors' demobilisation budget

ID	Potential Impact	Recommended enhancement/mitigation measure	Schedule for implementation	Responsible institution	Implementation Cost (MWK)
2.	MITIGATION MEASURES FOR NEGATIVE IMPACTS				
2.1.	Construction Phase				
2.2.1.	Loss of trees and vegetation cover	<ul style="list-style-type: none"> • Limit clearance strictly to demarcated areas. • Replace affected trees through planting. • Implement post-planting care for planted trees 	Throughout construction phase	Contractor	MWK4,000,000.00 for tree clearing and supporting tree planting
2.2.2.	Increased risk of soil erosion and dust pollution	<ul style="list-style-type: none"> • Restrict land clearing to construction site. • Backfill and compact excavated areas immediately. • Stockpile excavated soil away from excavated area • Spray water on loose soil during construction. • Plant vegetative cover after completion of construction works 	Throughout construction phase	Contractor	MWK1,800,000.00 for disposing soils in approved sites

ID	Potential Impact	Recommended enhancement/mitigation measure	Schedule for implementation	Responsible institution	Implementation Cost (MWK)
2.2.3.	Increased soil contamination	<ul style="list-style-type: none"> • Surface all servicing/fuel areas with impervious materials. • Use environmental friendly chemicals where possible. • Employ trained staff for handling hazardous materials. • Spray pesticides only in required areas. • Use lined surfaces for painting. • Separate, contain, and dispose waste oils properly. 	Throughout construction phase	Contractor	N/A cost included in the project budget
2.2.4.	Increased generation of solid waste	<ul style="list-style-type: none"> • Provide containers for segregation and easy collection. • Remove waste bins promptly. • Encourage reuse of cartons/containers. • Dispose waste appropriately at designated sites. 	Throughout construction phase	Contractor	N/A cost included in the project budget

ID	Potential Impact	Recommended enhancement/mitigation measure	Schedule for implementation	Responsible institution	Implementation Cost (MWK)
2.2.5.	Increased dust emissions	<ul style="list-style-type: none"> • Store sand/cement in covered areas. • Control vehicle speeds and install signs/humps. • Sprinkle water on earth roads. • Handle sand/cement properly to limit dust. • Provide PPE (masks, goggles) to workers 	Throughout construction phase	Contractor	MWK1,000,000.00 for site holding fence, PPE/C and spraying water
2.2.6.	Increased generation of sanitary waste	<ul style="list-style-type: none"> • Provide adequate mobile toilets. • Conduct routine monitoring and cleaning. • Periodically empty toilets. • Train workers on proper use. 	Throughout construction phase	Contractor	N/A cost included in the project budget

ID	Potential Impact	Recommended enhancement/mitigation measure	Schedule for implementation	Responsible institution	Implementation Cost (MWK)
2.2.7.	Increased noise generation	<ul style="list-style-type: none"> • Use modern machines fitted with silencers. • Regularly service equipment. • Install hoarding fence at all sites. • Notify communities in advance of noisy activities. • Provide ear protection PPE to workers. 	Throughout construction phase	Contractor	N/A
2.2.8.	Increased in other labour related risks	<ul style="list-style-type: none"> • Employ people from within the area. • Provide suitable working conditions i.e. Safe drinking water and sanitary facilities • Paying worker's above minimum wage. • Have in place a worker's grievance redress committee at each site • Sensitize workers about their labour rights. 	Throughout construction phase	Contractor	MWK1,000,000.00

ID	Potential Impact	Recommended enhancement/mitigation measure	Schedule for implementation	Responsible institution	Implementation Cost (MWK)
2.2.9.	Increased risk to community health and safety	<ul style="list-style-type: none"> • Enforce a Traffic Management Plan. • Barricade sites and provide signage. • Introduce speed limits. • Conduct inductions for workers, learners, and community. 	Throughout construction phase	Contractor	MWK 1,000,000.00
2.2.10.	Increased safety and health risks of the workers	<ul style="list-style-type: none"> • Restrict access with fencing and signage. • Provide OHS training and orientation. • Supply PPE and first aid kits. • Train workers on lifting and handling. • Check/control noise, dust, fumes. • Provide safe drinking water and sanitation. • Conduct daily safety talks. • Implement good housekeeping practices. 	Throughout construction phase	Contractor	Included in 2.1.9

ID	Potential Impact	Recommended enhancement/mitigation measure	Schedule for implementation	Responsible institution	Implementation Cost (MWK)
2.2.11.	Increased incidences of child labour	<ul style="list-style-type: none"> • Verify age of workers via IDs. • Inspect sites regularly for child labour. • Collaborate with City Labour Office. • Sensitize leaders, children, and community. • Display warning posters. 	Throughout construction phase	Contractor	MWK900,000.00
2.2.12.	Increased risk of spread of HIV and AIDS and STIs	<ul style="list-style-type: none"> • Conduct community awareness/support programmes. • Collaborate with authorities to stop influx of prostitutes/job seekers. • Encourage medical check-ups and treatment. • Place condom boxes at strategic sites. • Allow workers home visits. 	Throughout construction phase	Contractor	MWK2,000,000.00 for condoms and sensitizations

ID	Potential Impact	Recommended enhancement/mitigation measure	Schedule for implementation	Responsible institution	Implementation Cost (MWK)
2.2.13.	Increased risk of gender-based violence (GBV), sexual harassment (SH) and sexual exploitation and abuse (SEA)	<ul style="list-style-type: none"> • Develop/enforce code of conduct with punitive measures. • Implement GBV/SEA plan. • Institute grievance redress mechanisms. • Provide separate facilities for men/women. • Train workers/GRCs, conduct community sensitization. • Display IEC materials. 	Throughout construction phase	Contractor	MK1,000,000.00
2.2.14.	Increased risk of theft	<ul style="list-style-type: none"> • Employ appropriate security guards. • Support community policing (whistles, airtime). • Include policing officers in grievance committees. 	Throughout construction phase	Contractor	MK2,000,000.00

ID	Potential Impact	Recommended enhancement/mitigation measure	Schedule for implementation	Responsible institution	Implementation Cost (MWK)
2.2.15.	Disturbance of traffic along the access roads leading to the construction site	<ul style="list-style-type: none"> • Fence all work sites. • Provide safe passages/detours. • Restrict speeds to 20km/h with road signs. • Record entry/exit and prevent unauthorized access. 	Throughout construction phase	Contractor	MK1,000,000.00
2.2.	Operation and Maintenance Phase				
2.2.1.	Increased risk of vandalism	<ul style="list-style-type: none"> • Install protectors at entrance points (doors, windows). • Provide security guards. • Develop bylaws to curb vandalism. • Sensitize communities. 	Throughout operation and maintenance phase	Client	MWK 1,000,000.00

ID	Potential Impact	Recommended enhancement/mitigation measure	Schedule for implementation	Responsible institution	Implementation Cost (MWK)
2.2.2.	Increased solid waste generation	<ul style="list-style-type: none"> • Provide bins and skips. • Ensure timely collection and proper disposal. • Train the user fee collectors on solid waste management. • Use information signs to sensitize proper disposal. 	Throughout operation and maintenance phase	Blantyre City Council	MWK 1,000,000.00
2.2.3.	Increased risk of pollution from liquid waste	<ul style="list-style-type: none"> • Regularly check plumbing, waste screens, manholes. • Sensitize learners to proper use of drainage. • Avoid disposing hazardous chemicals in sewage. 	Throughout operation and maintenance phase	Blantyre City Council	N/A (To be included in the operation budget)
2.3	Demobilization Phase				
2.3.1	Increased dust generation	<ul style="list-style-type: none"> • Spray water on activity areas. • Handle/transport waste in controlled manner. • Enforce speed limits. • Provide PPE for dust-generating tasks. 	throughout demobilization phase	Contractor	N/A

ID	Potential Impact	Recommended enhancement/mitigation measure	Schedule for implementation	Responsible institution	Implementation Cost (MWK)
2.3.2	Loss of jobs due to completion of construction works	<ul style="list-style-type: none"> • Pay severance benefits. • Give adequate notice to workers. • Sensitize workers/community to save income. 	Throughout construction phase Three months before termination of contracts At the end of demobilization phase	Contractor	N/A
2.3.3	Increased generation of waste	<ul style="list-style-type: none"> • Disposal of waste at designated site • Use rubble to rehabilitate access roads and degraded areas in the project area. 	throughout demobilization phase	Contractor	N/A

ID	Potential Impact	Recommended enhancement/mitigation measure	Schedule for implementation	Responsible institution	Implementation Cost (MWK)
2.3.4	Increased risk of abandonment of excavated areas for raw materials	<ul style="list-style-type: none"> • Rehabilitate all work sites • Fill up and close pits after the construction works • Avoid making deep pits during the construction period. • Source construction materials e.g., sand and quarry from licensed suppliers 	Throughout construction phase	Contractor	N/A cost included in the project budget
TOTAL					61,300,000.00

6.2 Environmental and Social Monitoring Plan

Environmental and social monitoring must be conducted to verify the magnitude, duration and scope of the predicted impacts during and after implementing the enhancement and mitigation measures. It also helps to detect any unforeseen impacts at an early stage so that corrective measures are taken, before significant damage takes place on the social, economic and biophysical components of the environment. Table 8 provides the proposed environmental and social monitoring plan.

Table 10: Environmental and Social Management Plan

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
1.	ENHANCEMENT MEASURES FOR POSITIVE IMPACTS						
1.1.	Planning and Design Phase						
1.1.1	Increased employment opportunities	Maximise employment of professionals registered with relevant Malawian institutions and authorities.	% of staff registered with relevant professional bodies.	Interviews, Review of employment records, Inspection	Monthly	Ministry of Labour, Project Implementation Unit (PIU)	Covered under project cost
		Advertise employment opportunities through multiple outlets.	Number of job advertisements placed in local and national outlets				
		Give equal employment opportunities to both men and women (60% and 40%).	Gender distribution of employees (% men, % women).				

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
1.2.	Construction Phase						
1.3.	Increased employment opportunities	Prioritize employment of people (including youth) from project areas.	Number of employees from project areas vs. total workforce.	Interviews, Head counting, Review of employment records, Inspection	Monthly	PIU, City Labour Officer, Department of Gender Affairs, MEPA	MWK 1,000,000.00
Maximise use of local labour (skilled and unskilled).	% of workforce sourced locally (skilled and unskilled).						
Advertise employment opportunities through outlets including District Labour Office.	Number of job advertisements placed in local and national outlets.						
Provide equal employment opportunities to men and women (60% and 40%).	Gender distribution of employees (% men, % women).						

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
1.3.1	Availability of market for supply of construction materials and services	Source materials from licensed suppliers.	% of materials purchased from licensed suppliers.	Interviews, Review of procurement records, Inspection	Monthly	PIU, NCIC, Department responsible for Trade, Blantyre City Council, MEPA	MWK1,000,000.00 for transport
		Pay suppliers within agreed timeframes.	Average time taken to pay suppliers against agreed terms.				
		Encourage local suppliers to stock quality products.	Number of local suppliers reporting improved product stock quality.				
1.3.2	Creation of market for local goods and services	Sensitize traders to improve quality of goods/services and maintain hygienic vending areas.	Number of sensitization sessions conducted for traders.	Interviews, Review of community meeting/ sensitization reports, Inspections of goods, Visual inspections	Monthly	Department responsible for Trade, Blantyre City Council	Included in 1.2.1 above
1.3.3							

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
		Encourage proper stock management	Frequency of stock sold and replacement				
		Inform women and youth of business opportunities.	Number of women and youth engaged in business opportunities.				
		Encourage workers to pay promptly for goods/services	% of transactions paid within agreed timeframe by workers.				
1.3.4	Generation of revenue for government from taxes and levies	Purchase from suppliers with valid tax registration.	% of suppliers verified with valid tax registration.	Review of tax remittance records	Monthly	Contractor, Blantyre City Council, MRA	MK2,000,000.00
	Register project and employees with relevant institutions.	% of projects and employees registered with relevant institutions/authorities					
	Remit taxes and levies on time.	% of tax and levies made on time					

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
1.3.5	Improved knowledge and skills transfer among workers	Maximise local employment (particularly unskilled).	Number of employees from project areas vs. total workforce.	Employment records, Interviews, Human Resource records	Monthly	District Labour Office, Blantyre City Council, Blantyre District Council	Included in 1.2.1 above
		Pair skilled and unskilled workers deliberately.	Number of worker pairs formed and documented.				
		Formalise on-the-job training with targets and monitoring.	Number of workers completing formalized on-the-job training.				
1.4.	Operation and Maintenance Phase						
1.5.	Access to improved sanitation facilities	Ensure adequate staff and proper work schedules.	Number of staff employed in relation with the workload	Visual inspections, Maintenance reports	Bi-annually	Contractor, BCC, DHO	MK2,000,000.00
		Regularly inspect and repair septic tanks.	Inspection records				
		Maintain facilities to prevent overflows	Number of incidents reported and addressed				

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
		Sensitize users through IEC materials.	Number of sensitizations conducted Number of people sensitized				
1.5.1	Improved sanitation, hygiene and health of learners	Integrate hygiene education campaigns into school programs.	Hygienic State of the facilities Number of hygiene campaign conducted	Visual inspections, interviews	Bi-annually	Contractor, BCC, DEM, DHO	MK8,000,000.00
		Maintain sanitation facilities per strict schedules.	Maintenance records				
1.5.2	Increased School Attendance	Introduce complementary programs such as school hygiene clubs and sanitation ambassadors among students to promote ownership and responsibility for the facilities.	Number of complementary programs introduced. School attendance records	Visual inspections, interviews, Attendance reports	Bi-annually	Contractor, BCC, DEM	MK1,000,000.00

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
1.5.3	Reduced incidences of water borne diseases	Conduct regular maintenance of sanitation facilities.	Maintenance schedules conducted	Visual inspections, interviews	Bi-annually	Contractor, BCC, DHO, DEM	MK9,000,000.00
		Educate the learners on important health issues, information and awareness campaigns can be carried out to promote proper hygiene practices, disease prevention and the importance of using the sanitation facility correctly.	Reduction in reported cases of waterborne diseases among learners, absenteeism rates, and health screening reports. Number of awareness campaigns conducted				
1.3.5	Enhanced Privacy and Dignity	Install security locks, proper lighting, and partitions.	Number and functionality of locks, partitions, and lighting installed	Visual inspections, Feedback reports	Monthly	Contractor, BCC, DHO, DEM	MK5,000,000.00
		Regularly maintain and clean facilities.	Frequency of cleaning and maintenance				
		Involve learners in feedback mechanisms	Learner satisfaction and feedback records				

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
1.6.	Demobilization Phase						
1.6.1	Improved visual appearance	Safely dispose of construction waste in approved areas.	Volume of wastes disposed in approved areas and in a safe manner	Visual inspections	Twice at the beginning and the end of the demobilization phase	PIU, MEPA, Blantyre City Council	MWK5,000,000.00 for transport
		Remove all debris.	Volume of debris removed				
1.4.2	Reduced occupational health and safety risk	Adhere to health and safety guidelines	Health and safety guidelines followed	Visual inspections,	Twice at the beginning and the end of the demobilization phase	PIU, MEPA, Blantyre City Council	MK2,000,000.00
		Raise awareness among learners and communities	Number of sensitizations on awareness on health and safety				

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
2.	MITIGATION MEASURES FOR NEGATIVE IMPACTS						
2.2	Construction Phase						
2.1.1	Loss of trees and vegetation cover	Limit clearance strictly to demarcated areas.	% of cleared land within approved boundaries.	Interviews, visual inspections, Review of sensitization minutes, counting trees removed and planted	Monthly	MEPA, Blantyre city Council	Included in 1.2.1. above
		Replace affected trees through planting.	Number of trees planted vs. number of trees cleared.				
		Implement post-planting care for planted trees	% of tree seedlings surviving after 12 months.				
2.1.2	Increased risk of soil erosion and dust pollution	Restrict land clearing to construction site.	Number of non-construction areas left undisturbed.	Interviews, visual inspections, Review of records of activities (monthly reports)	Monthly	PIU, MEPA, Blantyre City Council	Included in 1.2. 1. above
		Backfill and compact excavated areas immediately.	% of excavated areas backfilled and compacted on time.				

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
		Stockpile excavated soil away from excavated area	% of excavated soil stockpiled at designated areas.				
		Spray water on loose soil during construction.	Frequency of water spraying recorded per week				
		Plant vegetative cover after completion of construction works	% of disturbed areas replanted with vegetation				
2.1.3	Increased risk of soil contamination	Surface all servicing/fuel areas with impervious materials.	Number of servicing/fuel areas surfaced with impervious materials.	Interviews, visual inspections,	Monthly	MEPA, MBS, Blantyre city Council	Included in 1.2.1. above
		Use environmental friendly chemicals where possible.	% of chemicals purchased that are environmentally friendly.				

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
		Employ trained staff for handling hazardous materials.	Number of staff trained in hazardous material handling.				
		Spray pesticides only in required areas.	% of pesticide use limited to designated treatment areas.				
		Use lined surfaces for painting.	% of painting activities conducted on lined surfaces.				
		Separate, contain, and dispose waste oils properly.	Quantity of waste oil collected and disposed through approved methods.				
		Provide appropriate containers across the work areas for waste disposal and easy collection to disposal site.	Number of containers available on site for waste disposal				

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
2.1.4	Increased generation of solid waste	Remove waste bins promptly.	Frequency of waste bin collection per week.	Interviews, visual inspections, Measurements, Review of waste collection and disposal records, Review of incidence reports	Monthly	PIU, MEPA, MBS, Blantyre City Council	Included in 1.2.1. above
		Encourage reuse of cartons/containers.	% of cartons/containers reused.				
		Dispose waste appropriately at designated sites.	% of waste disposed at designated waste disposal sites.				

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
2.1.5	Increased dust emissions	Store sand/cement in covered areas.	% of sand/cement stockpiles stored under cover.	Interviews, Visual inspection	Monthly	PIU, MEPA, Blantyre City Council, Contractor	Included in 1.2.1 and 1.2.2 above
		Control vehicle speeds and install signs/humps.	Number of speed control measures (signs/humps) installed.				
		Sprinkle water on earth roads.	Frequency of water sprinkling on earth roads.				
		Handle sand/cement properly to limit dust.	% of sand/cement handling activities with dust suppression.				
		Provide PPE (masks, goggles) to workers	% of workers using PPE correctly at worksites.				

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
2.1.6	Increased generation of sanitary waste	Provide adequate mobile toilets.	Number of mobile toilets provided vs. workforce size.	Interviews, Visual inspection, Review of grievances records, Review of reports of activities	Monthly	PIU, MEPA, Blantyre City Council, DHO	Included in 1.2.1. and 1.2.2 above
		Conduct routine monitoring and cleaning.	Frequency of sanitation monitoring and cleaning records.				
		Periodically empty toilets.	Number of toilet emptying cycles completed per month.				
		Train workers on proper use.	Number of workers trained on sanitation facility use.				
2.1.7	Increased noise generation	Use modern machines fitted with silencers.	Number of vehicles and machinery with noise mufflers	Interviews, Visual inspection, Review of grievances records, Review of reports of activities	Monthly	PIU, MEPA, Blantyre City Council	Included in 1.2.1. and 1.2.2 above

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
		Regularly service equipment.	Number of times equipment are serviced				
		Install hoarding fence at all sites.	Availability of hoarding fence				
		Notify communities in advance of noisy activities.	Number of times the public is sensitized/informed				
		Provide ear protection PPE to workers.	Number of workers provided with ear protection equipment				
2.1.7	Increased in other labour related risks	Employ people from within the area	Percentage of workers employed from within.	Interviews, visual inspections, incidences and grievances	Monthly	PIU, MEPA, Blantyre City Council, District Labour Office	Included in 1.2.1. and 1.2.2 above
		Provide suitable working conditions i.e. safe drinking water and sanitary facilities	Availability of safe drinking water and sanitary facilities				

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
		Paying workers above minimum wage	Wages paid in reference to the government minimum wages				
		Have in place a workers grievance redress committee at each site	% of workers equipped with appropriate PPE.				
		Sensitise workers about their labour rights	Number of workers sensitized on labour rights				
2.1.8	Increased risk to community health and safety	Enforce a Traffic Management Plan.	Existence of an approved Traffic Management Plan in use.	Interviews, visual inspections, incidences and grievances	Monthly	PIU, MEPA, Blantyre City Council, District Labour Office	MK1,000,000.00
		Barricade sites and provide signage.	Number of barricades and warning signs installed at worksites.				

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
		Introduce speed limits.	% of project vehicles complying with speed limits				
		Conduct inductions for workers, learners, and community.	Number of inductions conducted				
2.1.9	Increased safety and health risks of the workers	Restrict access with fencing and signage	Presence and functionality of fencing and safety signage	Interviews, visual inspections, incidences and grievances	Monthly	PIU, MEPA, Blantyre City Council, District Labour Office	MK1,000,000.00
		Provide OHS training and orientation	Number of trainings and orientations conducted				
		Supply PPE and first aid kits	Number of workers with PPE and availability of equipped first aid kits				

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
		Train workers on lifting and handling	Number of trainings conducted on lifting and handling				
		Check/control noise, dust and fumes	Regular monitoring of noise and fumes against safety standards				
		Provide safe drinking water and sanitation	Availability and quality of drinking water and sanitation facilities on site				
		Conduct daily safety talks	Number of daily safety talks conducted				
		Implement good housekeeping practices	Cleanliness and oderness of work site				

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
2.1.8	Increased incidences of child labour	Verify age of workers via IDs.	% of workers with verified age documentation.	Interviews, visual inspections, Review of activities logs, Incidence reports, Grievances and incidences.	Monthly	MEPA, Blantyre City Council, NCIC, Labour Office, Department of Occupation Safety, health and Welfare	Included in 1.2.1. and 1.2.2 above
		Inspect sites regularly for child labour.	Number of site inspections conducted for child labour per quarter.				
		Collaborate with City Labour Office.	Number of joint inspections/meetings held with the Labour Office				

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
		Sensitise workers on child labour	Number of sensitisation meetings conducted				
2.1.10	Increased risk of gender-based violence (GBV), sexual harassment (SH) and sexual exploitation and abuse (SEA)	Develop/enforce code of conduct with punitive measures	Level of compliance to code of conduct	Interviews, Visual inspections, Review of activities, Incidence reports.	Monthly	MEPA, NCIC, City Labour Office, District Health Office	MWK 15,000,000.00
		Implement GBV/SEA plan	% of activities implemented				
		Institute grievance redress mechanisms	Availability of functional WGRC's and CGRC's				
		Provide separate facilities for men/women	Availability of facilities on site				
		Train workers/GRC's, conduct community sensitisation	Number of workers trained and community sensitisation meetings conducted				
		Provide IEC materials	Availability of IEC materials on site				

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
1.1.11.	Increased risk of spread of HIV and AIDS and STIs	Conduct community awareness /support programmes	Number of community awareness conducted	Visual inspections, review of monthly work reports, Interviews, Employee register, Grievances	Monthly	PIU, MEPA, NCIC, City Labour Office, District Health Office	Included in 1.2.1, 1.2.2, and 2.1.11 above
		Collaborate with authorities to stop influx of prostitutes/job seekers	Records of joint actions with local authorities				
		Encourage medical check-ups and treatment	Number of workers undergoing medical check ups				
		Place condom boxes at strategic sites	Availability of condoms boxes at strategic site				
		Allow workers home visits	Frequency of workers visit to their homes				

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
1.1.12.	Increased risk of theft	Employ appropriate security guards	Number of security guards employed	Review of reports, Review of theft records, Review of sensitization reports, Grievances records	Monthly	PIU, MEPA, NCIC, Malawi Police Service	MWK 10,000,000.00
		Support community policing (whistles and airtime)	Frequency and adequacy of community policing support provided				
		Include police officers in grievance committees	Presence and participation of police officers in GRC's				

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
	Disturbance of traffic along the access roads leading to the construction site	Fence all work sites	Presence of fence	Review of reports, Review of records, Visual inspections	Monthly	PIU, BCC	N/A
		Provide safe passages/detours.	Number of safe passages or detours created and maintained.				
		Restrict speeds to 20km/hr with road signs.	% of project vehicles complying with 20 km/h limit in project areas.				

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
		Record entry/exit and prevent unauthorized access.	Number of entries/exits logged daily and % of unauthorized entries prevented.				
1.2.	Operation and Maintenance Phase						
1.2.1	Increased risk of vandalism	Install protectors at entry points	Presence of installed protectors at entry points.	Interview, Visual Inspections, Incidence reports	Quarterly	Blantyre City Council	Included in 2.3.1 above
Provide security guards.		% of worksites with 24-hour security guard coverage.					
Develop bylaws to curb vandalism.		Number of bylaws developed/adopted to prevent vandalism.					

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
		Sensitize communities.	Number of community sensitization meetings held on site security and vandalism prevention.				
1.2.2	Increased solid waste generation	Provide bins and skips.	Number of bins/skips provided and in use.	Interview, Visual Inspections, Reports	Quarterly	Blantyre City Council	MK1,000,000.00
		Ensure timely collection and proper disposal.	Frequency/timeliness of waste collection and disposal				
		Train the user fee collectors on solid waste management.	Number of user fee collectors trained on solid waste management				
		Use information signs to sensitize proper disposal.	Number and visibility of information signs on waste disposal				

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
1.2.3	Increased risk of pollution from liquid waste	Regularly check plumbing, waste screens, manholes.	Frequency of plumbing, waste screen, and manhole inspections	Interview, Visual Inspections, Incidence reports	Quarterly	Blantyre City Council	MK1,000,000.00
		Sensitize students to proper use of drainage.	Number of sensitization sessions conducted for students on drainage use				
		Avoid disposing hazardous chemicals in sewage	Incidences of hazardous chemical disposal into sewage				

ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year
1.3	Demobilization Phase						
1.3.1	Increased dust generation	Spray water on activity areas.	Frequency of water sprinkling on earth roads.	Interviews, visual inspections, Review of activity reports	Twice at the beginning and the end of this phase	PIU, MEPA, NCIC, Blantyre City Council	Included in 1.3.1 above
		Handle/transport waste in controlled manner.	% of waste transported in covered vehicles with proper labelling				
		Enforce speed limits.	% of project vehicles complying with 20 km/h limit in project areas.				
		Provide PPE for dust-generating tasks.	% of workers with PPE				
ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year

1.3.2	Loss of jobs due to completion of construction works	Pay severance benefits.	% of eligible workers receiving full severance benefits.	Interviews, visual inspections, Review of activities reports, Grievances.	Twice at the beginning and the end of this phase	PST MEPA, NCIC, City Labour Office	Included in 1.3.1 above
		Give adequate notice to workers.	Number of days' notice given to workers before termination compared to legal requirement.				
		Sensitize workers/community to save income.	Number of financial literacy/savings sensitization sessions conducted.				
1.3.3	Increased generation of waste	Disposal of waste at designated site; and	% of waste disposed at designated disposal sites.	Interviews, visual inspections, Review of activities reports.	Twice at the beginning and the end of this phase	PST, MEPA, NCIC, Blantyre City Council	Included in 1.3.1 above
		Use rubble to rehabilitate access roads and degraded areas in the project area.	Length (km) of access roads rehabilitated with rubble.				
ID	Potential Impact	Recommended enhancement/mitigation measure	Monitoring Indicator	Means of monitoring	Monitoring Frequency	Responsible institution	Monitoring cost/Year

1.3.4	Increased risk of abandonment of excavated areas for raw materials	Rehabilitate all excavated sites immediately after use through backfilling, landscaping, and replanting vegetation.	% of excavated sites rehabilitated immediately after use.	Interviews, visual inspections, Review of activities reports.	Twice at the beginning and the end of this phase	PST, MEPA, NCIC, Blantyre City Council	Included in 1.3.1 above
		Fill up and close pits after the construction works	Number of pits filled up after construction works				
		Avoid making deep pits during the construction period.	Number of dip pits made during construction and filled.				
		Source construction materials e.g., sand and quarry from licensed suppliers	Number of construction materials sourced from licensed suppliers				
TOTAL							63,000,000.00

6.3 Incidents management

All incidents/ accidents must be recorded and reported. An accident is an event that has unintentionally happened, that results in damage, injury or harm. An incident is an event that has unintentionally happened, but this may not result in damage, harm or injury. Therefore, every accident can be an incident. However not all incidents can be termed as an accident.

When an incident or accident occurs, it must be reported within 24 hours using the reporting forms contained in Appendix 12. Immediately the accident/incident investigation must start to identify the cause and measures that when implemented will prevent the incident/accident from recurring.

6.4 Institutional roles and responsibilities

6.4.1 Implementation Arrangements

The successful implementation of this ESMP lies on the concerted efforts from various key stakeholders and these include MEPA, Blantyre Water Board (BWB), MWSP-1 PIU, Blantyre District Council, Blantyre City Council (BWB), Contractor and Private operators of the public sanitation facilities in markets and Health Centre Management committees who will oversee operation and maintenance of the facilities in health centres.

BWB and BCC with MWSP-1 PIU will be responsible for coordinating, planning, implementing and monitoring environmental and social issues. In addition, the PIU will ensure that financial resources for capacity building and implementation of the ESMP are allocated. Further, BCC will, through the MWSP-1s Environmental and Social Safeguards team oversee the following:

- Disseminating the content and requirements of the ESMP to the contractors and all key stakeholders and assisting with the implementation of the ESMP;
- Monitoring and evaluating the Contractor's implementation of the ESMP;

- Monitoring key indicators of the Project’s environmental impacts and performance;
- Reviewing plans, designs and strategies in relation to environmental, social and health considerations;
- Maintaining appropriate management systems and documentation;
- Preparing and submitting environmental and social documentation to government agencies and lenders/ donors as required;
- Following-up non-conformance situations to ensure they are successfully addressed;
- Taking corrective action or stopping works in the event of breaches of ESMP conditions that have the potential for serious impacts on local communities or the project’s reputation;
- Adapting management policies and strategies through lessons learnt.
- Disseminating the content and requirements of the ESMP to the contractors and all key stakeholders and assisting with the implementation of the ESMP;
- Taking corrective action or stopping works in the event of breaches of ESMP conditions that have the potential for serious impacts on local communities or the project’s reputation;

Supervising Engineer will ensure the following: 1) timeline management; 2) budget management; 3) contractor management; 4) quality control; 5) regulatory compliance by contractor; 6) design reviews; 7) risk management; 8) safety oversight; 9) documentation and reporting and final inspection and handover

Contractors will develop Contractors ESMP (C’ESMP) and associated auxiliary management plans and ensure their implementation and compliance. In addition, the contractor will ensure that all workers have signed ‘*Code of Conduct*’ and are compliant to it. The contractor will be responsible for the orientation of the facilities caretakers in operation and maintenance flowing completion of the construction works. The contractor will also be responsible for reporting all incidents/accidents using reporting forms contained in Appendix 12 and, prepare and submit a monthly report using the reporting template contained in Appendix 13

The contractor will also be responsible for the following:

- Adherence to local labour regulations
- Preparation and implementation of the Waste Management Plan;
- Implementation of the Occupational Health and Safety Plan securing workplace registration certificate;
- Ensuring that all construction personnel and subcontractors are informed of the intent of the ESMP and are made aware of the required measures for environmental and social compliance and performance;
- Developing and implementing the Traffic Management Plan, with special emphasis on high trafficked areas.
- Complying with all mitigation measure requirements as provided in this ESMP and other safeguards instruments such as ESMF
- Ensuring that contracts and construction plans for the project meet all design requirements identified in the mitigation measures; and
- Engaging a Social and Gender officer as well as an Environmental and Safety Health officer to oversee compliance with mitigation measures on site.

Blantyre District Council will work with PIU to monitor the implementation of the CESMP and auxiliary plans. Therefore, Blantyre District Council's Environmental Officer will work with the MWSP-PIU Safeguards Team in monitoring the implementation of the ESMP.

Schools management Team will be responsible for carrying out regular maintenance of the public sanitation facilities in accordance with the operational and maintenance (O & M) manual. In addition, they will:

- Participate in inspection of the PSFs alongside with BWB and BCC
- Participate in sensitizing toilet users in the proper and hygienic use of the facility

Malawi Environment Protection Authority (MEPA) will conduct inspections and monitor compliance with the implementation of the ESMP during the construction and operation phase of the project.

6.5 Capacity Building

The successful implementation of the environmental and social safeguards depends on the capacity of the implementing stakeholders. The following training requirements have been planned to facilitate capacity building of the implementing stakeholders in order for them to effectively execute the roles and functions they have been assigned under this project. Table 9 provides areas that require training and target audience including time frame and responsible institution to deliver.

Table 11: Required Training on Environmental and Social Safeguards

#	Type of Training	Targeted Stakeholder	Responsible Institution	Time Frame
1	ESMP and Auxiliary Management Plans	Contractor; Blantyre City Council	PIU/ BWB & BCC	Planning, Construction Phase
2	Occupational Safety and Health	Contractor; Blantyre City Council	PIU/ BWB & BCC	Construction; Operation and Maintenance Phases
3	Grievance Redress Mechanism (Appendix 7)	Contractor; Blantyre City Council	PIU/ BWB & BCC	Construction; Operation and Maintenance Phases
4	Operational and Maintenance of the PSF		Contractor PIU/ BWB & BCC	Construction; Operation and Maintenance Phases
5	Code of Conduct, labour rights and awareness on STI including HIV and AIDS	Contractor	PIU/ BWB & BCC	Construction; Operation and Maintenance Phases
7	GBV, SEA, SH and Child Labour	Contractor, Blantyre City Council	PIU/ BWB & BCC	Construction; Operation and Maintenance Phases

CONCLUSION AND RECOMMENDATIONS

7.1. Conclusion

The construction and operation of 49 Public Sanitation Facilities in schools represent a transformative step towards enhancing health, education, and community well-being. By addressing key barriers to school attendance and ensuring gender-sensitive sanitation solutions, the project contributes to improved learning environments and empowers students, particularly girls, to pursue their education without interruption. The integration of eco-friendly technologies and sustainable practices ensures that the facilities operate efficiently with minimal environmental impact.

Through ongoing monitoring, maintenance, and community engagement, the project's benefits will extend well beyond the school premises, fostering healthier communities and promoting a culture of hygiene and sanitation. The collaborative effort between school authorities, local communities, and project implementers will guarantee the longevity and success of this initiative, creating lasting positive impacts for generations to come.

7.2. Recommendations

The Environmental and Social Management Plan (ESMP) in this report describes the environmental and social impacts of the project and outlines corresponding management measures that should be implemented to mitigate the potential adverse environmental impacts that have been identified. The project should therefore comply with all local laws and regulations, which seek to ensure that the project is implemented in an environmentally sound manner while safeguarding the safety and health of the workers and the surrounding community. In this regard, it is recommended that:

- ✓ The project should adopt the recommendations advanced in this report;
- ✓ The Project must ensure that safety and health issues are given the necessary attention;

- ✓ The developer should implement the recommendations and mitigation measures advanced in the Environmental Management and Monitoring Plans and
- ✓ The developer is required to obtain a permit from MEPA

REFERENCES

(2023) Drivers of vulnerability to health and

Chumo I, Kabaria C, Shankland A and Mberu B

- i. Chumo I, Kabaria C, Shankland A and Mberu B (2023) Drivers of vulnerability to health and wellbeing challenges in informal settlements. Nairobi, Kenya
- ii. Climatic Data ORG, Climatic Data for Cities Worldwide, <https://en.climatic-data.org>
- iii. Environmental Management (Chemical and Toxic Substances) Regulations. 2008
- iv. Environmental Management (Waste Management and Sanitation) Regulations. 2008
- v. Government of Malawi (1948), Public Health Act, Ministry of Health;
- vi. Government of Malawi (1995), Water Works Act, Ministry of Water Development
- vii. Government of Malawi (1996), Environment Management Act, Ministry of Natural Resources, Energy and Mining;
- viii. Government of Malawi (1996), National Construction Industry Act. Ministry of Lands, Housing and Urban Development;
- ix. Government of Malawi (1997), Occupational Safety, Health, and Welfare Act, Ministry of Labour, Youth, Sports, and Manpower Development;
- x. Government of Malawi (1998) National Decentralization Policy, Ministry of Local Government and Rural Development;
- xi. Government of Malawi (1998), Local Government Act, Ministry of Local Government, Lilongwe;
- xii. Government of Malawi (2000), Employment Act. Ministry of Labour
- xiii. Government of Malawi (2002), Malawi National Land Policy, Ministry of Lands, Housing and Urban Development;

- xiv. Government of Malawi (2004), National Environment Policy, Ministry of Natural Resources, Energy and Mining;
- xv. Government of Malawi (2004), National Water Policy. Ministry of Water Development
- xvi. Government of Malawi (2007), Forestry Act, Ministry of Natural Resources, Energy and Mining
- xvii. Government of Malawi (2012), National Climate Change Policy. Ministry of Natural Resources, Energy and Mining
- xviii. Government of Malawi (2012), National HIV/AIDS Policy. Ministry of Health
- xix. Government of Malawi (2013), Gender Equality Act, Ministry of Gender, Children, Disability and Social Welfare;
- xx. Government of Malawi (2013), National Gender Policy. Ministry of Gender, Children, Disability and Social Welfare;
- xxi. Government of Malawi (2013), Water Resources Act, Ministry of Water Development;
- xxii. Government of Malawi (2015), National Construction Industry Policy. Ministry of Lands, Housing and Urban Development;
- xxiii. Government of Malawi (2016), National Forestry Policy. Ministry of Natural Resources, Energy and Mining
- xxiv. Government of Malawi (2016), Physical Planning Act, Ministry of Lands, Housing and Urban Development;
- xxv. Government of Malawi (2016), The Constitution of the Republic of Malawi, Office of President and Cabinet;
- xxvi. Government of Malawi (2017), Forestry (Amendment) Act, Ministry of Natural Resources, Energy and Mining;
- xxvii. Government of Malawi (2017), Local Government (Amendment) Act, Ministry of Local Government, Lilongwe;
- xxviii. Government of Malawi (2017). National Charcoal Strategy;
- xxix. Government of Malawi (2018), National Energy Policy. Ministry of Natural Resources, Energy and Mining

- xxx. Government of Malawi (2018), National Sanitation Policy.
- xxxi. Government of Malawi (2020) Malawi 2063, National Planning Commission, Capital City Lilongwe.
- xxxii. Government of Malawi (2022), Land Act, Ministry of Lands, Housing and Urban Development;
- xxxiii. Guidelines for Environmental Impact Assessment. (1997)
- xxxiv. National Construction Industry (Use of Sustainable Construction Materials) 2018
- xxxv. National Statistical Office (2008). Population and Household Survey;
- xxxvi. National Statistical Office (NSO). (2019). 2018 Malawi Population and Housing Census: Main Report. Zomba, Malawi;
- xxxvii. National Statistical Office (NSO). (2020). Malawi Population Projections, 2018–2050. Zomba, Malawi;
- xxxviii. wellbeing challenges in informal settlement
- xxxix. World Bank (2017). Environmental and Social Framework

APPENDICES

APPENDIX 1A: STAKEHOLDERS CONSULTATION AT MPINGWE PRIMARY SCHOOL



APPENDIX 1B: FIELD VISIT AT MBAYANI-1 PRIMARY SCHOOL



APPENDIX 1C: STAKEHOLDER ENGAGEMENT PLAN

1. Introduction

The Malawi Water and Sanitation Project-1 (MWSP-1) aims to increase access to improved water supply and safely managed sanitation services in the Blantyre metropolitan area. The project also seeks to enhance the operational and financial efficiency of the Blantyre Water Board (BWB). Effective stakeholder engagement is critical to the success of this project, ensuring transparency, inclusivity, and active participation throughout the project lifecycle.

This Stakeholder Engagement Plan (SEP) outlines the strategies and activities to involve all relevant stakeholders, ensuring their voices are heard and their concerns addressed.

2. Objectives of Stakeholder Engagement

- i. Foster collaboration and trust among stakeholders.
- ii. Ensure timely dissemination of project information.
- iii. Facilitate community participation in decision-making processes.
- iv. Address concerns and grievances effectively.
- v. Promote accountability and transparency throughout the project implementation.

3. Stakeholder Identification and Analysis

Stakeholder Category	Example	Responsibilities
Primary Stakeholders	Blantyre Water Board (BWB)	Project implementation, operational management, and grievance handling.
	Blantyre City Council (BCC)	Overseeing sanitation investments and community outreach.
	World Bank (IDA)	Financing the project and providing technical assistance.
Secondary Stakeholders	Local Communities	Providing feedback, participating in consultations, and maintaining PSFs.
	Market Vendors	Users of public sanitation facilities and feedback contributors.
	Health	Beneficiaries of sanitation improvements.

Stakeholder Category	Example	Responsibilities
	Facilities	
	Local Workforce	Contractors and laborers, including the 40% female workforce contributing to works
Other Stakeholders	Government Ministries/Departments	Policy alignment, regulatory oversight, and support.
	Civil Society Organizations (CSOs)	Advocacy for community interests and monitoring project impacts.
	Media	Disseminating project information and raising awareness

4. Engagement Approach and Activities

A variety of communication methods will be used as appropriate for each set of stakeholders. In general, these include: a) Public and individual meetings, b) Announcements in media, c) Provision of general information on notice-boards at public locations, d) Regular mail and email correspondence and Publication of relevant project information on the website of Blantyre Water board. For different stakeholder groups different techniques will be used. Table 3 describes a detailed plan for stakeholder engagement

4.1. Information Disclosure:

- **Key Methods:**

Stakeholder Group	Engagement objectives	Engagement Method	Timing
Project Affected People from surrounding communities	- Introduce the project and manage their expectations	- public meetings - Focus Group discussion - Interview with community leaders	- Prior to commencement of civil works but after project hand over
	- Provide information on project impacts and proposed mitigation measures of environmental and	- Media - public meeting - Focus Group discussion (to capture views of vulnerable	- Prior to commencement of civil works - Through-out

Stakeholder Group	Engagement objectives	Engagement Method	Timing
	social risks of the project including grievance redress channels	groups)	construction phase
	- Inform communities on available jobs and Management expectations	- Public meetings - Flyers and posters in local languages in markets and health centres.	- Prior to commencement of recruitments
	- To Provide timely information on risks and disturbances associated with the construction activities and operation of construction plants and vehicles	- Public consultation meeting, and individual meetings as necessary - Publishing information on the extent, timing and duration of planned works and any expected disruptions and inconveniences on the board in the offices of the relevant authorities at the Blantyre District Council and in electronic media when deemed necessary	- at least two weeks prior to the start of any construction works/activity
Governments MDAs, regulatory bodies, District Council and public	- Introduce the project and manage expectations	- meetings - emails - phone calls - Media	- Prior to commencement of works
	- Issuing permits, consents and opinions in accordance with local legislation, control of compliance with local legislation	- Key-informant interviews	- As defined by national legislation
	- Provide and obtain views on project implementation progress and any other emerging issues	- Supervision missions, site visits, Formal Meetings, Virtual Meetings	- Quarterly after commencement of civil works
Other	- Collect views on	- meetings	- Throughout

Stakeholder Group	Engagement objectives	Engagement Method	Timing
Interested Parties	development and implementation safeguards mitigation measures	- Interviews - Public hearing - Phone - email	construction of phase of the project
	- Share progress on implementation of the project	- Media meetings - Press release	- Quarterly

4.2. Consultations:

- **Community Meetings:** Scheduled at project inception, midpoint, and completion phases.
- **Focus Group Discussions:** Targeting vulnerable groups, such as women and people with disabilities.
- **Workshops:** Engaging stakeholders on project design and implementation strategies.

4.3. Capacity Building:

- **Training Programs:** For local workforce on construction standards and sanitation practices.
- **Community Awareness Campaigns:** Promoting hygiene and proper use of PSFs.

4.4. Grievance Redress Mechanism (GRM):

- Establish a clear and accessible system for stakeholders to raise concerns:
 - **Hotline:** Toll-free number for complaints and suggestions.
 - **Suggestion Boxes:** Placed in markets and health centres.
 - **Community Liaison Officers:** To facilitate face-to-face engagement.

5. Roles and Responsibilities

Stakeholder	Roles and Responsibilities
Blantyre Water Board (BWB)	Overall project coordination, stakeholder communication, and grievance management.
Blantyre City Council (BCC)	Supervision of sanitation facilities and community engagement.

Stakeholder	Roles and Responsibilities
World Bank (IDA)	Monitoring compliance with environmental and social standards.
Local Communities	Providing feedback, participating in consultations, and maintaining PSFs.
CSOs	Advocacy, oversight, and community mobilization.
Contractors	Ensuring quality construction and adherence to timelines.

6. Main Issues to Be Discussed by Stakeholders

Stakeholder	Main Issues
Blantyre Water Board (BWB)	Project timelines, budget management, water supply infrastructure, and grievance redress mechanisms.
Blantyre City Council (BCC)	Sanitation facility designs, community mobilization strategies, and health-related interventions.
World Bank (IDA)	Funding disbursement, compliance with project guidelines, and monitoring and evaluation standards.
Local Communities	Access to improved water and sanitation, feedback mechanisms, and employment opportunities.
Market Vendors	Adequacy and location of public sanitation facilities, maintenance, and operational policies.
Health Facilities	Availability of sanitation facilities, waste management, and hygiene promotion campaigns.
Government Ministries	Policy alignment, regulatory compliance, and capacity-building initiatives.
CSOs	Community advocacy, monitoring project impacts, and addressing social and environmental concerns.
Media	Dissemination of accurate project information and public awareness campaigns.

7. Monitoring and Evaluation

- **Key Performance Indicators (KPIs):**
 - Number of community meetings conducted.
 - Percentage of grievances resolved within the stipulated timeframe.

- Level of community satisfaction with project outcomes (via surveys).
- **Reporting:**
 - Quarterly progress reports shared with stakeholders.
 - Independent audits to evaluate engagement effectiveness.

8. Conclusion

This Stakeholder Engagement Plan serves as a roadmap for fostering meaningful participation and collaboration in MWSP-1. By engaging stakeholders effectively, the project aims to achieve its objectives while ensuring sustainability and inclusivity. Stakeholder identification and engagement will be a continuous process; this document shall be updated regularly to reflect the evolving needs and dynamics of the project.

APPENDIX 2: CODE OF CONDUCT

Code of Conduct

This Code of Conduct is part of our measures to address environmental and social risks related to the Works. It applies to all staff, laborers, and other employees at the Works Site or other locations where the Works are carried out. It also applies to subcontractor personnel and any other individuals assisting in project execution. Collectively, these are referred to as “Contractor’s Personnel.”

Our workplace must remain free of unsafe, offensive, abusive, or violent behaviour. All persons should feel comfortable raising issues or concerns without fear of retaliation. This Code of Conduct sets forth expectations for ethical, professional, and responsible behaviour in alignment with the project’s objectives and values.

10.1 Required Conduct

Contractor’s Personnel shall:

1. Perform duties competently and diligently.

2. Comply with this Code of Conduct and all applicable laws and regulations, including health and safety standards.
3. Maintain a safe working environment by:
 - Ensuring machinery, equipment, and processes are safe.
 - Wearing required personal protective equipment (PPE).
 - Using appropriate safety measures for chemical, physical, and biological substances.
 - Following emergency operating procedures.
4. Report unsafe or unhealthy conditions and remove themselves from dangerous situations.
5. Treat others respectfully and without discrimination.
6. Avoid Sexual Harassment, Exploitation, and Abuse (SEA):
 - Sexual harassment includes unwelcome advances or requests for sexual favours.
 - Sexual exploitation refers to abusing a position of vulnerability for sexual purposes.
 - Sexual abuse involves physical intrusion of a sexual nature under coercive conditions.
7. Avoid sexual activity with individuals under 18, except in cases of pre-existing marriage.
8. Complete mandatory training on health, safety, SEA, and related topics.
9. Report violations of the Code of Conduct.
10. Avoid retaliation against individuals raising concerns or complaints.

10.2 Reporting Concerns

Concerns regarding violations of this Code of Conduct should be reported promptly to Timothy Mkandawire at [contact details]. Anonymous reports are accepted and will be

addressed confidentially unless disclosure is legally mandated. Appropriate support services will be offered to affected individuals.

10.3 Consequences of Violating the Code of Conduct

Violations may result in disciplinary action, including suspension, dismissal, or legal referral.

Examples include:

SN	Act of violation of Code of Conduct	Penalty
1.	Sexual Harassment, which means unwelcome sexual advances, requests for sexual favours, and other verbal or physical conduct of a sexual nature with other Contractor’s or Employer’s Personnel;	Disciplinary action would include the following according to the nature of act of violation: <ul style="list-style-type: none"> • Suspension • Immediate dismissal • Report to Police
2.	Sexual Exploitation, which means any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another;	Disciplinary action would include the following according to the nature of act of violation: <ul style="list-style-type: none"> • Suspension • Immediate dismissal • Report to Police
3.	Sexual Abuse, which means the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions;	Disciplinary action would include the following <ul style="list-style-type: none"> • Immediate dismissal • Report to Police
4.	Any form of sexual activity with individuals under the age of 18, excepting case of pre-existing marriage	Disciplinary action would include the following: <ul style="list-style-type: none"> • Immediate dismissal • Report to Police
5.	Discriminate or harass other employee or physical assault (local or foreigner) or any other person concerned with the project on grounds of sex, tribe, religion, nationality, ethnicity, marital status, disability or employment status.	Disciplinary action would include the following according to the nature of act of violation: <ul style="list-style-type: none"> • Suspension • Immediate Dismissal

6.	Entertaining unauthorized visitations including minors on the worksite.	Disciplinary action would include the following: <ul style="list-style-type: none"> • Suspension • Immediate Dismissal
7.	Verbal conduct that leads to sexual harassment	Disciplinary action would include the following according to the nature of act of violation: <ul style="list-style-type: none"> • Written warning • Suspension • Immediate Dismissal
8.	Retaliation against any person who raises a concern	Disciplinary action would include: <ul style="list-style-type: none"> • Suspension • Immediate Dismissal

Acknowledgment

By signing below, I confirm that I have read and understood the Code of Conduct.

Contractor's Personnel: Name: _____

Signature: _____ Date: _____

Company Representative: Name: _____

Signature: Function _____

Date: _____

APPENDIX 3: CONSTRUCTION WASTE MANAGEMENT PLAN

The Waste Management Plan outlines procedures for handling, minimizing, and safely disposing of waste generated throughout the project, including the construction phase, contractor demobilization phase, and operation phase. It ensures compliance with national regulations and environmental best practices to prevent pollution and protect both human health and the environment.

Waste management during the project will comply with the Environmental Management Act of 2017, which provides the overall framework for environmental protection, including waste disposal regulations. The Waste Management Regulations of 2008 establish guidelines for waste classification, handling, and disposal, while the Public Health Act of 1948 governs waste management to prevent public health hazards. The Occupational Safety, Health, and Welfare Act of 1997 regulates hazardous waste handling in workplaces, ensuring the safety of workers and the environment. The Water Resources Act of 2013 controls the discharge of liquid waste into water bodies, ensuring proper wastewater treatment, while the Malawi Standard MS 730:2008 provides guidelines for solid waste management, including segregation, collection, transportation, and disposal.

The project will generate various types of waste, including solid, liquid, and gaseous waste. Solid waste will include materials such as rubble, timber, metals, plastics, packaging materials, paper, glass, and other debris from construction and demolition activities. Liquid waste will consist of wastewater from construction activities, oil and grease from machinery, chemical residues, and contaminated water from site operations. Gaseous emissions will result from combustion products from machinery and vehicles, dust from excavation and construction activities, and emissions from fuel-burning equipment.

To prevent and minimize waste, the contractor must adopt best practices in line with the Environmental Management Act of 2017, including optimizing material

use, implementing proper storage to prevent damage, and reusing materials where possible. Procurement should prioritize eco-friendly and recyclable materials. Waste collection, segregation, and storage must comply with the Waste Management Regulations of 2008, with designated areas and separate bins for different waste categories such as general waste, hazardous waste, and recyclable materials.

Construction and demolition waste must be disposed of at designated disposal sites approved by the local authority, following the guidelines in Malawi Standard MS 730:2008. Reusable materials such as wood and metal should be salvaged for recycling or repurposing. Wastewater from construction activities must be treated before discharge in accordance with the Water Resources Act of 2013 and the Public Health Act of 1948. Contaminated water, including oil-laden runoff, must be captured and treated using appropriate filtration or oil separation techniques before release.

Hazardous waste such as asbestos, chemicals, oils, and paints must be handled with care and disposed of in strict compliance with the Occupational Safety, Health, and Welfare Act of 1997. Where necessary, hazardous materials must be disposed of under the supervision of qualified personnel. Asbestos waste must be disposed of in designated hazardous waste disposal facilities under controlled conditions.

To manage air quality and control gaseous emissions, the contractor must implement dust suppression measures, including regular watering of exposed surfaces, covering loose materials, and enforcing speed limits on unpaved roads, as outlined in the Environmental Management Act of 2017. Equipment and vehicles must be well maintained to reduce emissions, and fuel combustion must be minimized through efficient operational practices.

During the demobilization phase, the contractor must ensure proper removal of temporary structures, restoration of disturbed areas, and disposal of any remaining construction debris. Any hazardous substances used during construction must be properly disposed of before site handover, in compliance with the Waste Management Regulations of 2008.

During the operation phase, waste management systems will be implemented to ensure continuous waste segregation, recycling, and safe disposal. Facilities must have designated waste collection points, and scheduled waste removal services must be maintained, following the Malawi Standard MS 730:2008.

To ensure compliance with regulations, the contractor must adhere to all applicable waste management regulations and guidelines issued by relevant authorities. Regular site inspections and audits must be conducted to assess compliance, with corrective actions taken as needed. Waste records, including disposal receipts and treatment logs, must be maintained for accountability.

APPENDIX 4: OCCUPATION SAFETY AND HEALTH PLAN

- The contractor shall prepare a Health and Safety management plan including a Health and Safety Manual and Policy.
- All workers shall be regularly sensitized on safety regulations on the site.
- The Contractor shall ensure employment of skilled workers and endeavour to train all employees in health and safety management.
- The contractor shall provide all necessary protective clothing for workers exposed to hazardous and risky work activities.
- The contractor shall be guided by and shall adhere to the relevant national occupational health and safety regulations on the site.
- The contractor will enable facilitation of the Grievance Redress Mechanism (GRM) to be freely used and accessed by contractor workers and managed by the Employer.
- The contractor shall maintain on the site first aid kits for male and female workers.
- Workers shall be provided with clean potable water whilst on the site.
- Workers shall be provided with washrooms.

Before implementation of the project, the contractor will develop an Occupation Safety and Health Plan that will comprise of the following at minimum:

1. Table of Content

2. Introduction

Overview and purpose of the HSP

Identification of contractor team who develop the HSP

Structure and content of the HSP

Staff identification and responsibilities

3. Subproject Description

Description of construction works and other activities

Potential constraints on site, whether physical or natural, existing infrastructures, potential climate events, etc.

Description of the main risks by activity (consider summarizing them in a table).

Identification of construction materials that poses safety risks to the workers, and classify their risk.

4. Legal Requirements

Occupational health and safety (OHS) policy and/or strategy of the Firm.

Health and safety principles to adhere in all activities.

Applicable health and safety regulation and standards/guidelines.

Legally required documentation and assistance for workers

5. Measures and Actions for Risk Prevention

Working procedures and instructions

Procedures for access to work sites

Procedures and personal protective equipment according to the potential risk classification

Collective protection procedures and equipment. This should include, among others, alcohol control procedures and equipment, etc.

Procedures and signalling of work sites, including procedures and measures in case of temporary restriction of access to homes and services.

Training plan for workers including procedures for induction.

Procedures for reporting and recording accidents and non-compliances.

6. Emergency and Contingency Plan

Means of intervention, including equipment and human resources.

Emergency communication process

Response procedures in case of fall of materials and equipment, spill of toxic substances,

road accident.

Fire-fighting procedures

Procedures to assist victims

7. Monitoring Program

Design procedures for monitoring and inspection of the compliance with the health and safety procedures.

8. Annexes

The annexes shall include at least the following: PPE delivery record form; Access control form to the construction site; Workers medical record form; Training record form; Equipment maintenance record form; Non-compliance record form; Accident record form; Drawings showing typical images of signalling on site

APPENDIX 5: CHANCE FINDING PROCEDURE

<p>Chance find procedure is an integral part of the subproject ESMP due to the civil works that will be involved. If the Contractor discovers archaeological sites, historical sites, remains and objects, including graveyards and/or individual graves during excavation or construction, the Contractor shall do the following:</p>	
Step 1	Stop the construction activities in the area of the chance find;
Step 2	Delineate the discovered site or area;
Step 3	Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be arranged until the responsible local authorities or the Department of Antiquities take over;
Step 4	Notify the Environmental and Social Safeguards Officers and Subproject Manager who in turn will notify the Director of Antiquities in the Department of Antiquities immediately (within 24 hours or less);
Step 5	Responsible local authorities and the Department of Antiquities would then be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by the archaeologists of the Department of Antiquities. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage, namely the aesthetic, historic, scientific or research, social and economic values.
Step 6	Decisions on how to handle the finding shall be taken by the Director of Antiquities. This could include changes in the layout (such as when finding irremovable remains of cultural or archaeological importance) conservation, preservation, restoration and salvage.
Step 7	Implementation for the authority decision concerning the management of the finding shall be communicated in writing by relevant local authorities.
Step 8	Construction work may resume only after permission is given by Director of Antiquities concerning safeguard of the heritage.

APPENDIX 6: LABOUR MANAGEMENT MEASURES

- a) The contractor will identify labour management measures which will comprise of the following:
- Promotion of safety and health at work place; •
 - Promotion of fair treatment, non-discrimination and equal opportunities for project workers; •
 - Securing of protection of project workers, including vulnerable workers such as women, persons with disabilities, children of working age, migrant workers, contracted workers, community workers and primary supply workers, as appropriate;
 - Prevention of the use of all forms of forced labour and child labour;
 - Supporting the principles of freedom of association and collective bargaining of project workers in a manner consistent with national law; and
 - Provision of project workers with accessible means to raise workplace concerns.
- b) The contractor will be expected to draw contracts for all workers and a simplified version for non-skilled labourers including fulltime, part-time, temporary, seasonal and migrant workers.
- c) The Implementing Agency, with the contractor, will develop and implement internal labour 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 international laws.
- d) The contractor will provide information and documentation regarding terms and conditions of employment that are clear and understandable. This will include workers' rights related to hours of work, wages, overtime, compensation and benefits. This information will be provided at the beginning of the working relationship and when material changes occur.
- e) The contractors will ensure that no children of less than 18 years old are employed and that the rights of all workers are protected from any

environment, which abuses their rights; through the GRM and codes of conduct

- f) The contractors will Develop and implement procedures to identify trafficking victims among vulnerable populations. These standard operating procedures should include indicators of human trafficking tailored to local circumstances.
- g) The contractor shall ensure that no trafficked persons will be employed in connection with the project.
- h) The contractor will work with local leaders in the project areas to sensitize communities on human trafficking.
- i) The contractor shall maintain records of recruitment and employment of contracted workers as provided in their contracts and communicate clearly job descriptions and employment conditions to all workers.
- j) The contractor shall provide induction (including social induction) and regular training to employees in labour protection requirements, including training on their rights on safe labour on the risks of their jobs, and on measures to reduce risks to acceptable levels.
- k) The contractor shall ensure that recruitment procedures are transparent, public and non-discriminatory; and open with respect to ethnicity, religion, sexuality, disability or gender. In addition, the contractor shall include the need for employing local people in the project communities.
- l) Contractor shall formulate a grievance redress mechanism for employees recruited at the work place. The grievance redress mechanism shall include a transparent procedure for addressing grievances related recruitment process and matters in the work place. The grievance shall also include matters on

unaccounted working hours and lack of compensation for overtime, delay in and/or non-payment of salaries

APPENDIX 7: GRIEVANCE REDRESS MECHANISM

1. POTENTIAL GRIEVANCES ON THE PROJECT

Grievances, concerns and problems are inevitable during project implementation and an effective mechanism is needed to address them. Failure or delays to resolve the grievances and concerns can derail the implementation of the project. For the construction of the project activities, grievances may arise from the following:

- Procurement and payment processes;
- Contract issues e.g., breach of contract;
- Gender based violence including sexual exploitation and abuse and sexual harassment on site and in the community committed by work staff;
- Child labour and abuse;
- Theft of project property;
- Corruption (bribes, nepotism and favouritism);
- Environmental pollution;
- Occupation and Community safety and health; and
- Property damage.

2. GRIEVANCE REDRESS MECHANISM

A Grievance Redress Mechanism (GRM) is defined as an accessible and inclusive system, process, or procedure that receives and acts upon complaints, queries, inquiries, and suggestions for improvement in a timely fashion, and

facilitates resolution of concerns and grievances arising in connection with a project. An effective GRM provides affected parties with redress and helps address issues at an early stage. When effectively implemented, a GRM will improve overall project performance.

For this project, a GRM consisting of two committees has been proposed in consideration of the project location, project activities and the likely grievances.

These are the:

1. **Workers Grievances Redress Committee** – To be composed 5 members including three construction workers, the supervising engineer and representative of the Contractor. This committee will be established for construction workers to have a platform for raising grievances during the time with the project.
2. **Project Grievances Redress Committee** – To be composed of 5 people appointed by Blantyre Water Board. This committee will hear grievances from the public/community in relation to the project. It shall also hear cases referred to it by the Workers Grievances Redress Committee. Workers will also be required to lodge complaints direct to this committee depending on the type of grievance

Referral grievances will be investigated in detail to determine the cause of the unsatisfactory outcome and to attempt to resolve and close the grievance. When a complainant is not satisfied with the resolution offered by the Project Grievances Redress Committee, the grievance can be referred to the Programme (MRDRMP) Grievances Redress Committee. From the Programme GRM, unresolved issues can be referred to other institutions, for example the District Labour Office in the case of employment grievances or the courts of law.

In summary, committees are charged with receiving and registering complaints, conducting meetings with concerned parties to resolve the complaints and report on the outcomes monthly.

3. GRM AWARENESS

The Environmental and Social Safeguards Officer will sensitize the construction workers to the existence of the GRM before commencement of works. The contractor will be required to form a Workers Grievances Redress Committee and all workers involved in the project will be trained on how to lodge grievances while the committee will be trained on how to handle grievances. In general, the construction workers will be capacitated on the GRM implementation requirements.

The Environmental and Social Safeguards Officer will also conduct awareness meetings with the public during project implementation, especially the community that may arise because of looking for employment and business opportunities. The GRM will also be publicised to the public through information and education materials such as fliers and posters. The awareness will include information on uptake channels, Grievance Redress Committees locations where complaints can be lodged in person, timelines for grievance redressal and grievance referral paths (appeals processes). Contractors will be required to display notices, posters and signage on the availability of the GRM for the project works around the area they are working in so that the public, project beneficiaries and contractor workers have information on how to access this GRM.

APPENDIX 8: LABOUR MANAGEMENT PLAN (LMP)

Labour Management Plan (LMP)

1. Introduction

The construction of the Public Sanitation Facilities (PSFs) in schools will involve hired labour force. This LMP outlines the framework for ensuring that labour practices during the project comply with national labour laws, World Bank social and environmental standards, and promote fair treatment, safe working conditions, gender equality, and the prevention of GBV/SEA/SH, and child/forced labour.

2. Labour Use & Characteristics

The workforce for the construction project will be sourced as follows:

- **Contracted Workers & Consultants:** Contractors and short-term consultants will be engaged for assessments, designs, and construction. Preference will be given to hiring skilled and unskilled labour from the local community.
- **Migrant Workers:** Workers from outside the local area will only be hired if the required skills are unavailable locally.
- **Primary Supply Workers:** Suppliers must comply with legal, environmental, and labour standards, including tax compliance and certification, and ensure the avoidance of child or forced labour.

3. Key Labour Risks & Mitigation Measures

The following are the key labour risks associated with the project and proposed mitigation measures:

Potential Risks	Mitigation Measures
Occupational Safety & Health Risks	Provide PPE, enforce OHS training, install warning signs, provide first-aid stations, and implement emergency response procedures.
Communicable Diseases (COVID-19, Cholera, Malaria, HIV/AIDS)	Conduct awareness programs, voluntary screening/testing, provide potable water, PPE, hand washing stations, social distancing, condoms for HIV prevention.
Non-compliance with Labour Laws	Ensure mandatory worker contracts and Code of Conduct, conduct worker sensitization on labour laws.
Influx of Migrant Workers &	Prioritize local workers, ensure workers bring personal

Potential Risks	Mitigation Measures
Competition for Local Resources	resources, reduce pressure on local supplies.
GBV, SEA, SH, & Violence Against Children	Implement a GBV-responsive Grievance Redress Mechanism (GRM), enforce Code of Conduct, sensitize community, prevent child labour (workers must be 18+).
Discrimination & Exclusion of Vulnerable Groups	Promote equal employment opportunities for women, youth, and persons with disabilities, establish monitoring mechanisms.
Labour Disputes & Work Conditions	Establish a Worker Grievance Redress Mechanism (WGRM) to ensure worker issues are addressed effectively.
Exposure to Hazardous Materials & Waste	Safe storage and handling of chemicals, minimize hazardous material use, provide training on chemical safety.
Noise & Vibration Risks	Use low-noise equipment, install vibration dampeners, limit exposure time for workers.

4. Overview of Relevant Labour Legislation

- **Occupational Safety, Health, and Welfare Act (1997):** Ensures workplace safety through standards for ventilation, sanitation, protective clothing, and accident reporting. Non-compliance results in fines or imprisonment.
- **Employment Act (2000):** Establishes minimum standards for employment, prohibits forced labour, discrimination, and child labour, and mandates equal pay and fair employment practices.
- **Labour Relations Act (1996):** Promotes freedom of association, collective bargaining, and dispute resolution mechanisms.
- **Workers Compensation Act (2000):** Mandates compensation for occupational injuries and diseases.
- **Gender Equality Act (2013):** Promotes gender equality and prevents workplace discrimination and sexual harassment.
- **HIV/AIDS Prevention and Management Act (2017):** Protects persons living with HIV/AIDS, ensuring non-discrimination and treatment access.
- **COVID-19 Rules (2020):** Mandates physical distancing, mask-wearing, and sanitation to prevent virus spread.

5. Labour and Working Conditions

This section outlines requirements for occupational safety, non-discrimination, and worker protection:

- **Occupational Safety & Health (OSH):** Employers must eliminate hazards, implement engineering and administrative controls, and provide necessary PPE. Worker training is required on safety measures.
- **Non-Discrimination & Equal Opportunity:** Employment practices must ensure no discrimination based on gender, disability, or illness, with free association and collective bargaining protected.
- **Worker Grievance Mechanism (GRM):** A formal and independent system will be implemented to allow workers to raise concerns.

6. Gender-Based Violence (GBV), Sexual Exploitation & Abuse (SEA)

The project recognizes risks of GBV, SEA, and SH, particularly in employment relationships. Mitigation measures include:

- **Risk Assessments & Action Plans:** Conduct risk assessments for GBV/SEA and implement preventive action plans.
- **Awareness Campaigns:** Educate workers and the community about GBV/SEA risks and response protocols.
- **Confidential GRM:** Establish a confidential GBV/SEA grievance mechanism with appropriate referral systems.
- **Reporting Procedures:** All incidents of GBV, SEA, and SH will be reported to the police and the PIU within 48 hours.

7. Policies and Procedures

- **Recruitment:** Transparent and non-discriminatory recruitment processes will be used, with priority given to local communities. Written contracts will be mandatory.
- **Occupational Health & Safety Compliance:** OSH risk assessments will be conducted, and mitigation measures will be implemented, including mandatory PPE use.

- **Worker Welfare Facilities:** Contractors will provide adequate welfare facilities, such as safe drinking water, changing rooms, sanitary facilities, and rest areas.

8. Incident Reporting

- **OHS Incidents and Accidents:** Contractors must report OHS incidents within 48 hours as required by the Occupational Safety, Health, and Welfare Act (1997). Incident reports should include details of the incident, actions taken, and preventive measures.

9. Age of Employment

- **Minimum Age:** No workers under the age of 18 will be employed. Contractors will verify workers' age through national identification cards.
- **Child Labour:** Any violations of child labour laws will be reported to the authorities, and underage workers will be removed from the project.

10. Contractor Management

- **Selection of Contractors:** Contractors will be selected through a competitive bidding process in line with the Government of Malawi's Public Procurement and Disposal of Assets Authority (PPDA) procedures.
- **ESMP Compliance:** Contractors must submit an Environmental and Social Management Plan (ESMP) addressing key social risks like GBV, SEA, SH, child labour, and grievance redress.

11. Code of Conduct

- **Social Risk Prevention:** Contractors must develop a Code of Conduct that prevents social risks, including GBV, SEA, SH, and Occupational Health and Safety violations. The code will be reviewed by the PIU and communicated to all workers to ensure compliance.

APPENDIX 9: LIST OF STAKEHOLDERS CONSULTED IN SCHOOLS DURING THE ESMP PROCESS





Malawi Water and Sanitation Project-I (MWSP-1)-P174954
Attendance Register for meetings, trainings, tool box talks, etc.

District/ City: _____ TA/ Ward: Chimwaza Date: _____
 Time: _____ Venue: _____
 Activity Name: _____
 Main Facilitator Name: _____ Designation: _____
 Staff Admin Name: _____

Number	Full Name	Sex - M/F	Position	Phone Number	Signature
01	Justin Mwanuzi	M	School Manager	0999576778	[Signature]
02	Kimberlin Mbebezi	M	SMC Chair	0999563333	[Signature]
03	Agness Mwaite	F	Std 1 teacher	0999636888	[Signature]
04	Amina Sadiqa	F	Std 2 teacher	0999366888	[Signature]
05	Mary Ntalla	F	DHT	0999950545	[Signature]
06	Gertrude Mphasa	F	Shift Head	0999310555	[Signature]
07	Maxwell Lichapa	M	Std 7 teacher	0999166301	[Signature]





Malawi Water and Sanitation Project-I (MWSP-1)-P174954
Attendance Register for meetings, trainings, tool box talks, etc.

District/ City: _____ TA/ Ward: Chisembezi Date: _____
 Time: _____ Venue: _____
 Activity Name: _____
 Main Facilitator Name: _____ Designation: _____
 Staff Admin Name: _____

Number	Full Name	Sex - M/F	Position	Phone Number	Signature
	MARITHA Mapepa	F	PIE	0991012788	[Signature]
	Lucy Ottimseu	F	H Teacher	0995820165	[Signature]
	Stewart Kondewe	M	DH Teacher	0888123054	[Signature]
	Kamwe Ndimbwa	F	DH Teacher	0884135000	[Signature]

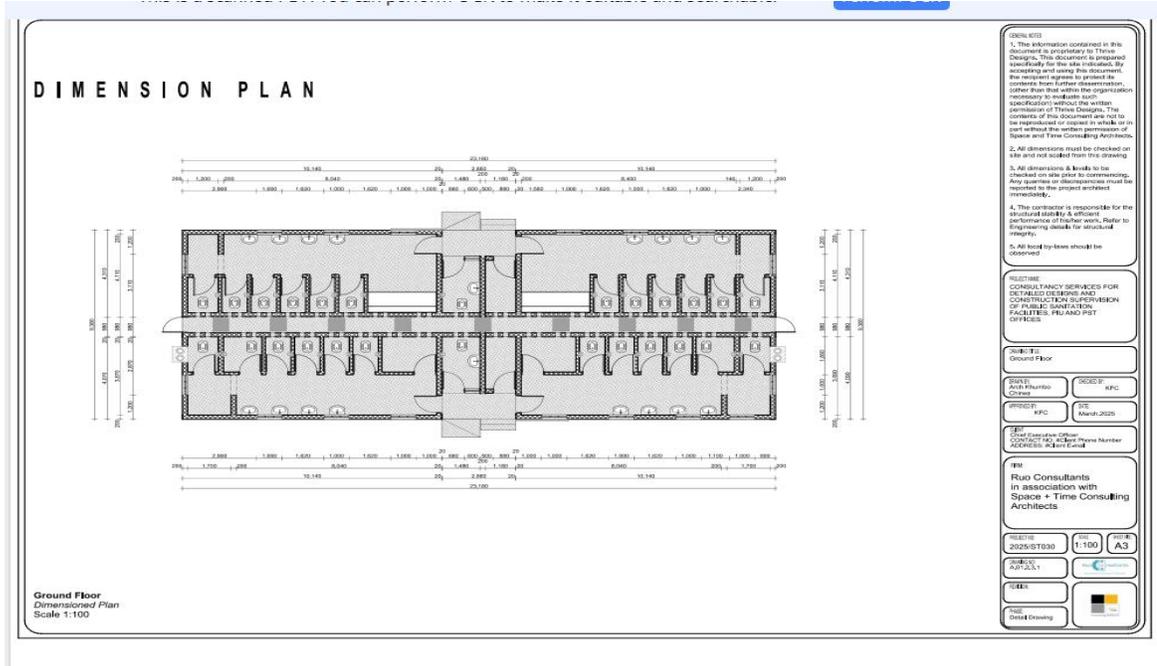
Attendance Register for meetings, trainings, tool box talks, etc.

District/ City: BT TA/ Ward: MAUNSTIC Date: 11/7/2025
 Time: 1:30 - 4:00 pm Venue: _____
 Activity Name: EES Screening @ Namatapa & Mpanjwe Schools
 Main Facilitator Name: _____ Designation: _____
 Staff Admin Name: _____

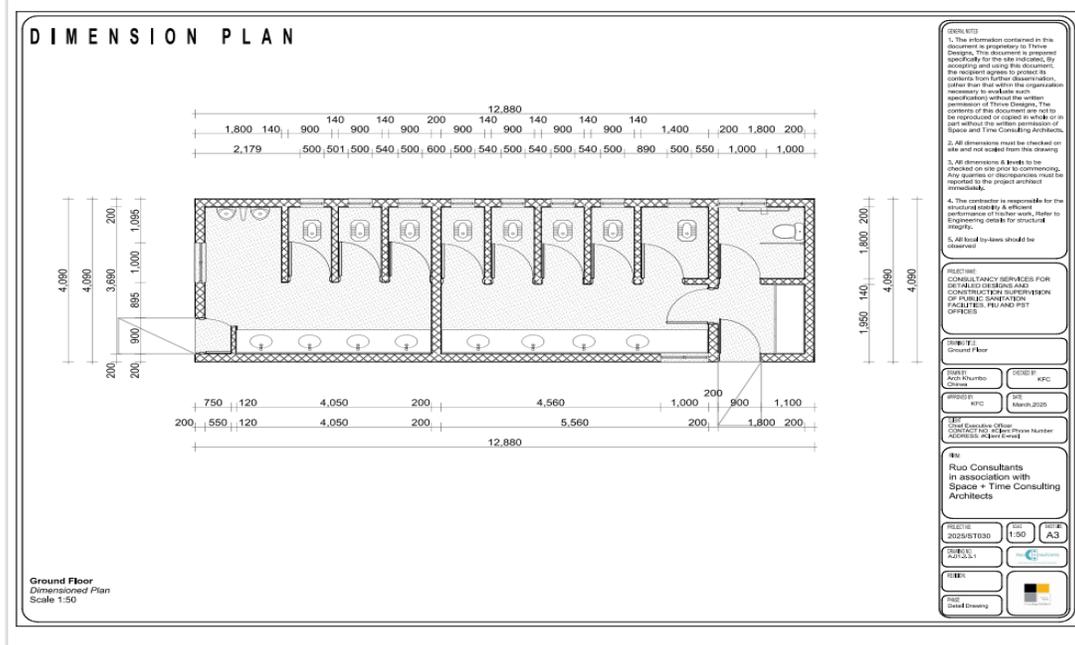
Number	Full Name	Sex - M/F	Position	Phone Number	Signature
1	Violet Mazaza	F	Deputy H Teacher	0995474000	[Signature]
2	Rose Osman	F	DHT	0888338922	[Signature]
3	Phillip Mpondo	M	HT	0888099992	[Signature]
4	Faneth Chikemba	F	SHT	099901906	[Signature]
5	Annie Zekaria	F	SDHT	0995718902	[Signature]
6	Jolina Shati	F	DHT	0995155455	[Signature]
7	Fatuma Banda	F	SHT	0992222851	[Signature]
8	Margret Mambembe	F	DHT	088437585	[Signature]
9	Linda Domingo	F	SMC Chair	088895120	[Signature]

APPENDIX 10: DRAWINGS FOR THE PUBLIC SANITATION FACILITIES

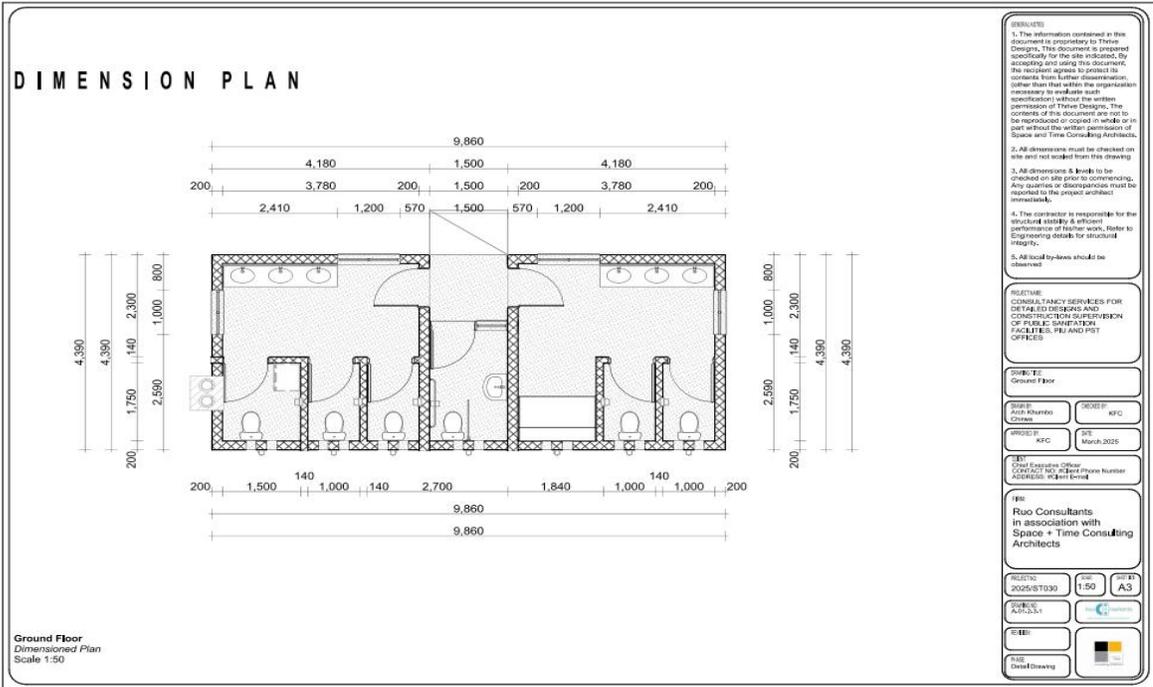
APPENDIX 10.1 STANDARD DESIGN



APPENDIX 10.2 NON-STANDARD DESIGN



APPENDIX 10.3 STAFF TOILET DESIGN



APPENDIX 11: SCREENING REPORT FOR CONSTRUCTION OF PSF IN PRIMARY SCHOOLS





Republic of Malawi

Blantyre Water Board

Blantyre City Council

MALAWI WATER AND SANITATION PROJECT - I

ENVIRONMENTAL AND SOCIAL SCREENING FORM – EXTRACTED FROM ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF) FOR MALAWI WATER AND SANITATION PROJECT-1.

PART A: GENERAL INFORMATION

Sub project Name	CONSTRUCTION OF PUBLIC SANITATION FACILITIES
Estimated Cost (MK)	1,500,000,000
Sub project Site	MALABADA
Sub project Objectives	To improve provision of sanitation services in public primary schools in Blantyre city
Proposed Main Activities:	CONSTRUCTION OF LEARNERS AND STAFF TOILETS
Name of Evaluator/s	Alinafe Litta Alinafe BT-DC EO Pameka Bon's Pameka PST-SGD Linly Nachonie Linly PST-GIS Grace MASON Grace PST-EMSO Hannah A. GONZA Hannah PST Melvin Melvin SPS Jairo Nelmi Jairo AT-CLD Theresa Puzi Theresa PST-SGD Precious Puzi Precious DMU BLM-ED
Date of Field Appraisal	09 JULY 2025

PART B: BRIEF DESCRIPTION OF THE PROPOSED ACTIVITIES

Provide information on the type and scale of the construction/rehabilitation activity (e.g. area, land required and approximate size of structures)

Project type:

Project site area: 1076.523m^2

Size of the structure: 261m^2

Provide information on the construction activities including support/ancillary structures and activities required to build them, e.g. need to quarry or excavate borrow materials, water source, access roads, etc.

1. Site preparation
2. Sub structure works
3. Super structure works
4. Roofing and finishes

Describe how the construction/rehabilitation activities will be carried out. Include description of support/activities and resources required for the construction/rehabilitation.

1. Mobilisation and site cleaning
2. Excavation for foundation
3. Casting concrete for footing
4. Sub-structure block work
5. Casting concrete for slab
6. Super-structure block work
7. Ring beam construction
8. Beam filling
9. Roof works
10. Interior and exterior finishes

PART C: ENVIRONMENTAL AND SOCIAL BASELINE INFORMATION OF THE SUB PROJECT SITE BRIEF DESCRIPTION

Category of Baseline Information	Brief Description
GEOGRAPHICAL LOCATION * Name of the Area (District, T/A, Village) * Proposed location of the sub project (Include a site map of at least 1:10,000 scale/or coordinates from GPS)	BLANTYRE, T/A KAFENI CHE EMMA VILLAGE M1: 719938.71, 8255010 M2: 719953.65, 8255025.6 M3: 719972.66, 8254996.8 M4: 719956.98, 8254982
LAND RESOURCES * Topography and Geology of the area * Soils of the area * Main land uses and economic activities	steep slope Sandy loam idle land
WATER RESOURCES * Surface water resources (e.g. rivers, lakes, etc.) quantity and quality * Ground water resources quantity and quality	None None
BIOLOGICAL RESOURCES * Flora (include threatened/endangered/endemic species) * Fauna (include threatened/endangered/endemic species) Sensitive habitats including protected areas e.g. nature reserves and forest reserves	Shrubs and grass Grasshopper and Ants
CLIMATE * Temperature * Rainfall	18°C - 27°C 1483mm (Annual)
SOCIAL * Number of people potentially impacted * Type and magnitude of impacts (i.e. impact on land, structures, crops, standard of living) * Socio-economic overview of persons impacted	None None None

PART D: SCREENING CRITERIA FOR IMPACTS DURING SUB-PROJECT IMPLEMENTATION, AREAS OF IMPACTS AND IMPACTS EVALUATION AND POTENTIAL MITIGATION MEASURES

Screening Criteria for Social and Environmental Impacts

Item	Areas of Impacts		Impacts Evaluation						Potential Mitigation Measures
	Is this subproject site/activity within and/or will it affect the following environmentally sensitive areas?		Extent or coverage (on site, within 3-5km or beyond 5km)			Significance (Low, Medium, High)			
	No	Yes	On Site	Within 3-5km	Beyond 5 km	Low	Medium	High	
1.0 Screening Criteria for Social and Environmental Impacts									
1.1	National parks or game reserve	✓							
1.2	Wetlands	✓							
1.3	Productive traditional agricultural /grazing lands	✓							
1.4	Areas with rare, endangered or other interest flora or fauna	✓							

Item	Areas of Impacts	Impacts Evaluation						Potential Mitigation Measures		
		Is this subproject site/activity within and/or will it affect the following environmentally sensitive areas?			Extent or coverage (on site, within 3-5km or beyond 5km)				Significance (Low, Medium, High)	
		No	Yes	On Site	Within 3-5km	Beyond 5 km	Low	Medium	High	
1.5	Areas with outstanding scenery/tourist site	✓								
1.6	Within steep slopes	✓		✓				✓		<ul style="list-style-type: none"> 1. Slope stabilisation 2. Excavation to be done only on designated site for construction
1.7	Forested or near forest or will impact forest	✓								
1.8	Along lakes, beach or river	✓								

Item	Areas of Impacts	Impacts Evaluation						Potential Mitigation Measures		
		Is this subproject site/activity within and/or will it affect the following environmentally sensitive areas?			Extent or coverage (on site, within 3-5km or beyond 5km)			Significance (Low, Medium, High)		
		No	Yes	On Site	Within 3-5km	Beyond 5 km	Low	Medium	High	
1.9	Near industrial activities	✓								
1.10	Near human settlements		✓			✓	✓			1. Stakeholder consultation and awareness
1.11	Near cultural heritage sites	✓								

Item	Areas of Impacts	Impacts Evaluation							Potential Mitigation Measures	
		Is this subproject site/activity within and/or will it affect the following environmentally sensitive areas?			Extent or coverage (on site, within 3-5km or beyond 5km)			Significance (Low, Medium, High)		
		No	Yes	On Site	Within 3-5km	Beyond 5 km	Low	Medium	High	
1.9	Near industrial activities	✓								
1.10	Near human settlements		✓			✓	✓			1. Stakeholder consultation and awareness
1.11	Near cultural heritage sites	✓								

Item	Areas of Impacts	Impacts Evaluation						Potential Mitigation Measures		
		No	Yes	On Site	Within 3-5km	Beyond 5 km	Low	Medium	High	
	Is this subproject site/activity within and/or will it affect the following environmentally sensitive areas?									
1.12	Within prime surface run off	✓								
1.13	Will the subproject discharge to or otherwise impact water bodies?	✓								

Item	Areas of Impacts	Impacts Evaluation						Potential Mitigation Measures	
		Extent or coverage (on site, within 3-5km or beyond 5km)			Significance (Low, Medium, High)				
		No	Yes	On Site	Within 3-5km	Beyond 5 km	Low	Medium	High
2.0 Screening Criteria for Impacts during Implementation and Operation									
Will the implementation and operation of the subproject within the selected site generate the following externalities/ costs/impacts?									
2.1	Deforestation		✓						
2.2	Soil erosion and siltation		✓						
2.3	Siltation of watercourses, dams		✓						

Item	Areas of Impacts		Impacts Evaluation							Potential Mitigation Measures
			Extent or coverage (on site, within 3-5km or beyond 5km)			Significance (Low, Medium, High)				
	No	Yes	On Site	Within 3-5km	Beyond 5 km	Low	Medium	High		
2.7	Hazardous wastes, (pipes, etc.), PCB's, pollution from unspent PV batteries	✓								
2.8	Nuisance - smell or noise		✓	✓		✓				1. Awareness and sensitisation to the surrounding community 2. Implement noise pollution activities after classes
2.9	Reduced water quality	✓								

Item	Areas of Impacts		Impacts Evaluation						Potential Mitigation Measures
			Extent or coverage (on site, within 3-5km or beyond 5km)			Significance (Low, Medium, High)			
	No	Yes	On Site	Within 3-5km	Beyond 5 km	Low	Medium	High	
2.10	Increase in costs of water treatment	✓							
2.11	Soil contamination		✓	✓			✓		<ol style="list-style-type: none"> 1. Timely servicing of machines 2. Proper storage and disposal of waste
2.12	Loss of soil fertility	✓							

Item	Areas of Impacts	Impacts Evaluation						Potential Mitigation Measures	
		Extent or coverage (on site, within 3-5km or beyond 5km)			Significance (Low, Medium, High)				
		No	Yes	On Site	Within 3-5km	Beyond 5 km	Low	Medium	High
2.13	Salinization or alkalinisation of soils	✓							
2.14	Reduced flow and availability of water	✓							
2.15	Long term depletion of water resources	✓							

Item	Areas of Impacts	Impacts Evaluation							Potential Mitigation Measures	
		Extent or coverage (on site, within 3-5km or beyond 5km)			Significance (Low, Medium, High)					
		No	Yes	On Site	Within 3-5km	Beyond 5 km	Low	Medium	High	
3.0 Screening Criteria for Social and Economic Impacts										
3.1	Loss of land/land acquisition for human settlement, farming, grazing	✓								
3.2	Loss of assets, property, houses, agricultural produce, etc.	✓								
3.3	Loss of livelihood	✓								

Item	Areas of Impacts		Impacts Evaluation						Potential Mitigation Measures
			Extent or coverage (on site, within 3-5km or beyond 5km)			Significance (Low, Medium, High)			
	No	Yes	On Site	Within 3-5km	Beyond 5 km	Low	Medium	High	
3.4	Require a RAP or ARAP	✓							
3.5	Loss of cultural sites, graveyards, monuments	✓							
3.6	Disruption of social fabric	✓		✓		✓			Stakeholder engagement and awareness

Item	Areas of Impacts	Impacts Evaluation						Potential Mitigation Measures		
		Extent or coverage (on site, within 3-5km or beyond 5km)			Significance (Low, Medium, High)					
		No	Yes	On Site	Within 3-5km	Beyond 5 km	Low	Medium	High	
3.10	Health hazards to workers and communities		✓	✓				✓		1. Conduct toolbox talks 2. Enforce use of appropriate PPE 3. Develop and implement OHS plan
3.11	Changes in human settlement patterns	✓								
3.12	Conflicts over use of natural resources e.g. water, land, etc.		✓	✓				✓		1. Obtain water abstraction permit 2. Agreement with school management on use of school borehole

Item	Areas of Impacts	Impacts Evaluation						Potential Mitigation Measures	
		Extent or coverage (on site, within 3-5km or beyond 5km)			Significance (Low, Medium, High)				
		No	Yes	On Site	Within 3-5km	Beyond 5 km	Low	Medium	High
3.13	Conflicts on land ownership	✓							
3.14	Disruption of important pathways, roads	✓							
3.15	Increased population influx		✓		✓		✓		

1. Employ workers from the local community

Item	Areas of Impacts		Impacts Evaluation						Potential Mitigation Measures
			Extent or coverage (on site, within 3-5km or beyond 5km)			Significance (Low, Medium, High)			
	No	Yes	On Site	Within 3-5km	Beyond 5 km	Low	Medium	High	
3.16	Loss of cultural identity	✓							
3.17	Loss of income generating capacity	✓							

3.5	Loss of cultural sites, graveyards, monuments	✓																									
3.6	Disruption of social fabric	✓																									

4.0. Consultation (comments from beneficiaries and other project affected peoples)

The project will help to reduce congestion for toilet
 crisis and lessen distance to those student whose
 classes are far from the current exist toilets.

Completion by PIU	
Is This Project Likely To Need An ESIA	YES/ NO
List A/B Paragraph Numbers	
Date Exempted	
Date Forwarded To MEPA	
Name & Signature of Environmental and/or Social Specialist/s	MELVIN K. K. K. Social Dept Specialist <i>[Signature]</i>

Completion by MEPA	
Date Received from District Assembly:	
Dated Reviewed:	
Date of Submission of Project Brief	
Date of Submission of ESIA Reports	
Date of Approval/Rejection	

NOTES:

- Once the Environmental and Social Screening Form is completed it is analyzed by the Environmental and Social Specialist/s from the PIU who will classify it into the appropriate category based on a predetermined criterion and the information provided in the form.
- All projects' proponents exempted from further impact assessment must be informed to proceed with other necessary procedures.
- Any project recommended for a specific ESIA will have to follow the procedures outlined in section 24 and 25 of the Environmental Management Act, and the Malawi Government's Guidelines for Environmental Impact Assessment Appendix C, page 32.

APPENDIX 12: ACCIDENT/INCIDENT REPORTING FORM

Part B: To be completed by Contractor and submitted to client within 24 hours

B1: Incident Details			
Date of Incident:	Time:	Date Reported to PIU:	Date Reported to WB:
Reported to PIU by:	Reported to WB by:	Notification Type:	
Full Name of Main Contractor:		Full Name of Subcontractor:	

B2: Type of incident (please check all that apply)
Fatality <input type="checkbox"/> Lost Time Injury <input type="checkbox"/> Displacement Without Due Process <input type="checkbox"/> Child Labor <input type="checkbox"/> Acts of Violence/Protest <input type="checkbox"/> Disease Outbreaks <input type="checkbox"/> Forced Labor <input type="checkbox"/> Unexpected Impacts on heritage resources
1. Unexpected impacts on biodiversity resources <input type="checkbox"/>
Environmental pollution incident <input type="checkbox"/> Dam failure <input type="checkbox"/> Other <input type="checkbox"/>

see definitions attached to this form

B3: Description/Narrative of Incident
<i>Please replace text in italics with brief description, noting for example:</i>
<i>What were the conditions or circumstances under which the incident occurred (if known)?</i>
1. <i>Are the basic facts of the incident clear and uncontested, or are there conflicting versions?</i>
2. <i>What are those versions?</i>

3. *Is the incident still ongoing or is it contained?*

4. *Have any relevant authorities been informed?*

B4: Actions taken to contain the incident

Short Description of Action	Responsible Party	Expected Date	Status

B5: What support has been provided to affected people

Definitions of Incident Types

The following are incident types to be reported using the environmental and social incident response process:

Fatality: Death of a person(s) that occurs within one year of an accident/incident, including from occupational disease/illness (e.g., from exposure to chemicals/toxins).

Lost Time Injury: Injury or occupational disease/illness (e.g., from exposure to chemicals/toxins) that results in a worker requiring 3 or more days off work, or an injury or release of substance (e.g., chemicals/toxins) that results in a member of the community needing medical treatment.

Acts of Violence/Protest: Any intentional use of physical force, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, deprivation to workers or project beneficiaries, or negatively affects the safe operation of a project worksite.

Disease Outbreaks: The occurrence of a disease in excess of normal expectancy of number of cases. Disease may be communicable or may be the result of unknown etiology.

Displacement Without Due Process: The permanent or temporary displacement against the will of individuals, families, and/or communities from the homes and/or land which they occupy without the provision of, and access to, appropriate forms of legal and other

protection and/or in a manner that does not comply with an approved resettlement action plan.

Child Labor: An incident of child labor occurs: (i) when a child under the age of 14 (or a higher age for employment specified by national law) is employed or engaged in connection with a project, and/or (ii) when a child over the minimum age specified in (i) and under the age of 18 is employed or engaged in connection with a project in a manner that is likely to be hazardous or interfere with the child's education or be harmful to the child's health or physical, mental, spiritual, moral or social development.

Forced Labor: An incident of forced labor occurs when any work or service not voluntarily performed is exacted from an individual under threat of force or penalty in connection with a project, including any kind of involuntary or compulsory labor, such as indentured labor, bonded labor, or similar labor-contracting arrangements. This also includes incidents when trafficked persons are employed in connection with a project.

Unexpected Impacts on heritage resources: An impact that occurs to a legally protected and/or internationally recognized area of cultural heritage or archaeological value, including world heritage sites or nationally protected areas not foreseen or predicted as part of project design or the environmental or social assessment.

Unexpected impacts on biodiversity resources: An impact that occurs to a legally protected and/or internationally recognized area of high biodiversity value, to a Critical Habitat, or to a Critically Endangered or Endangered species (as listed in IUCN Red List of threatened species or equivalent national approaches) that was not foreseen or predicted as part of the project design or the environmental and social assessment. This includes poaching or trafficking of Critically Endangered or Endangered species.

Environmental pollution incident: Exceedances of emission standards to land, water, or air (e.g., from chemicals/toxins) that have persisted for more than 24 hrs or have resulted in harm to the environment.

Dam failure: A sudden, rapid, and uncontrolled release of impounded water or material through overtopping or breakthrough of dam structures.

Other: Any other incident or accident that may have a significant adverse effect on the environment, the affected communities, the public, or the workers, irrespective of whether harm had occurred on that occasion. Any repeated non-compliance or recurrent minor incidents which suggest systematic failures that the task team deems needing the attention of Bank management.

Incident Reporting Form

Part C: To be completed by Contractor (following investigation & submitted to client within 4 days of incident occurrence)

Part C: To be completed by Contractor (following investigation & submitted to client within 4 days of incident occurrence)

C1: Investigation Findings

Please replace text in italics with findings, noting for example:

- 1. where and when the incident took place,*
- 2. who was involved, and how many people/households were affected,*
- 3. what happened and what conditions and actions influenced the incident,*
- 4. what were the expected working procedures and were they followed,*
- 5. did the organization or arrangement of the work influence the incident,*
- 6. were there adequate training/competent persons for the job, and was necessary and suitable equipment available,*
- 7. what were the underlying causes; where there any absent risk control measures or any system failures,*

C2: Corrective Actions from the investigation to be implemented (To be fully described in

Action	Responsible Party	Expected Date

Part C cont.: To be completed by Contractor (following investigation)

C3a: Fatality/Lost time Injury information

Immediate cause of fatality/injury for worker or member of the public (please check all that apply)

1. Caught in or between objects 2. Struck by falling objects 3. Stepping on, striking against, or struck by objects 4. Drowning 5. Chemical, biochemical, material exposure

6. Falls, trips, slips 7. Fire & explosion

8. Electrocution 9. Homicide 10. Medical Issue 11. Suicide 12. Others

Vehicle Traffic: 13. Project Vehicle Work Travel 14. Non-project Vehicle Work Travel

15. Project Vehicle Commuting 16. Non-project Vehicle Commuting

17.

Vehicle Traffic Accident (Members of Public Only)

Name	Age/ DOB	Date of Death/Injury	Gender	Nationality	Cause of Fatality/Injury	Worker (Employer)/Public

2

See definitions attached to this form

C3b: Financial Support/Compensation Types (To be fully described in Corrective Action Plan template)

1. Contractor Direct 2. Contractor Insurance 3. Workman's Compensation/National Insurance
4. Court Determined Judicial Process 5. Other 6. No Compensation Required

Name	Compensation Type	Amount (US \$)	Responsible Party

Definition of fatality/injury immediate causes

1. **Caught in or between objects:** caught in an object; caught between a stationary object and moving object; caught between moving objects (except flying or falling objects).
2. **Struck by falling objects:** slides and cave-ins (earth, rocks, stones, snow, etc.); collapse (buildings, walls, scaffolds, ladders, etc.); struck by falling objects during handling; struck by falling objects.
3. **Stepping on, striking against, or struck by objects:** stepping on objects; striking against stationary objects (except impacts due to a previous fall); Striking against moving objects; Struck by moving objects (including flying fragments and particles) excluding falling objects.
4. **Drowning:** respiratory impairment from submersion/emersion in liquid.
5. **Chemical, biochemical, material exposure:** exposure to or contact with harmful substances or radiations.
6. **Falls, trips, slips:** falls of persons from heights (e.g., trees, buildings, scaffolds, ladders, etc.) and into depths (e.g., wells, ditches, excavations, holes, etc.) or falls of persons on the same level.
7. **Fire & explosion:** exposure to or contact with fires or explosions.
8. **Electrocution:** exposure to or contact with electric current.
9. **Homicide:** a killing of one human being by another.

10. **Medical Issue:** a bodily disorder or chronic disease.
11. **Suicide:** the act or an instance of taking, or attempting to take, one's own life voluntarily and intentionally.
12. **Others:** any other cause that resulted in a fatality or injury to workers or members of the public.

Vehicle Traffic

13. **Project Vehicle Work Travel:** traffic accidents in which project workers, using project vehicles, are involved during working hours and which occur in the course of paid work.
14. **Non-project Vehicle Work Travel:** traffic accidents in which project workers, using non- project vehicles, are involved during working hours and which occur in the course of paid work.
15. **Project Vehicle Commuting:** traffic accidents in which project workers, using project vehicles, are involved while travelling to (i) the worker's principal or secondary residence; (ii) the place where the worker usually takes his or her meals; or (iii) the place where he or she usually receives his or her remuneration.
16. **Non-project Vehicle Commuting:** traffic accidents in which project workers, using non- project vehicles, are involved while travelling to (i) the worker's principal or secondary residence; (ii) the place where the worker usually takes his or her meals; or (iii) the place where he or she usually receives his or her remuneration.
17. **Vehicle Traffic Accident (Members of Public Only):** traffic accidents in which non-project workers/members of the public are involved in an accident while travelling for any purpose.

APPENDIX 13: CONTRACTOR'S MONTHLY REPORTING FORM



MALAWI WATER AND SANITATION PROJECT (MWSP-1)

Insert photo here

MONTHLY SAFEGUARDS PROGRESS REPORT

Executive Summary
Table of contents
List of figures
List of tables
Acronyms
Introduction

SAFEGUARDS ACTIVITIES DURING THE REPORTING PERIOD

Sn	All Planned activities	Implemented	Progress
1.			
2.			

Sn	Planned but not implemented	Reason for delay	Actions to be taken	Timeline
1				
2				
3				

CAPACITY BUILDING ACTIVITIES

Date	Target Group	Training Title	Participants		Total
			Male	Female	

COMMUNITY ENGAGEMENT

Activity	Target audience	Number of Participants (M/F)

GRIEVANCE REGISTERED AND HOW THEY WERE RESOLVED

Sn	Stakeholder	Nature of Grievance (s)	Total Grievances	Status	Remarks/ Comment(s)
	<i>(e.g.institution, community members, local leaders, etc.)</i>			Resolved / unresolv ed	

INCIDENTS REGISTERED AND HOW THEY WERE RESOLVED

#	Stakeholder involved	Nature of Incident	Cause of incident	Status	Remarks/ Comment(s)
	<i>Community members, employee</i>			closed/ opened	

CHALLENGES

Challenge	Mitigation Measures

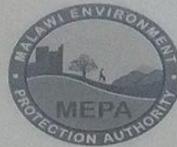
PLANNED ACTIVITIES FOR THE NEXT IMPLEMENTATION PERIOD

Sn	Activity	Lead	Timelines

PHOTOS TAKEN IN THE REPORTING PERIOD

APPENDIX 14. TERMS OF REFERENCE FOR THE DEVELOPMENT OF ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN FOR THE CONSTRUCTION OF PUBLIC SANITATION FACILITIES IN PUBLIC PRIMARY SCHOOLS IN BLANTYRE

Our Reference No: MEPA / 34/ 02/01 /
Your Reference No:
Communications should be addressed to:
The Director General



Malawi Environment Protection Authority
P/ Bag 317
Lilongwe 3
Tel: +265 986 184 292/ 882 425 163
Email: information@mepa.mw
Website: www.mepa.mw

Protecting the environment, Protecting life

15th September 2025

The Managing Director
Blantyre City Council
Private Bag 67
Blantyre.

Dear Sir,

REQUIREMENT OF ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN FOR THE CONSTRUCTION OF PUBLIC SANITATION FACILITIES IN PUBLIC PRIMARY SCHOOLS IN BLANTYRE

Reference is made to the project brief on the above captioned subject which was submitted to the Authority for review and guidance.

Considering the nature and scope of the proposed project and as a requirement of Environment Management Act of 2017, I wish to advise that you are required to prepare an Environmental and Social Management Plan (ESMP) before implementation of activities on the proposed project sites. Find attached Terms of Reference for preparing the ESMPs.

Should you require any further information or clarification on the foregoing, please do not hesitate to contact us.

Yours Faithfully,

MALAWI ENVIRONMENT PROTECTION AUTHORITY

Juwo Sibale, PhD.

FOR: DIRECTOR GENERAL

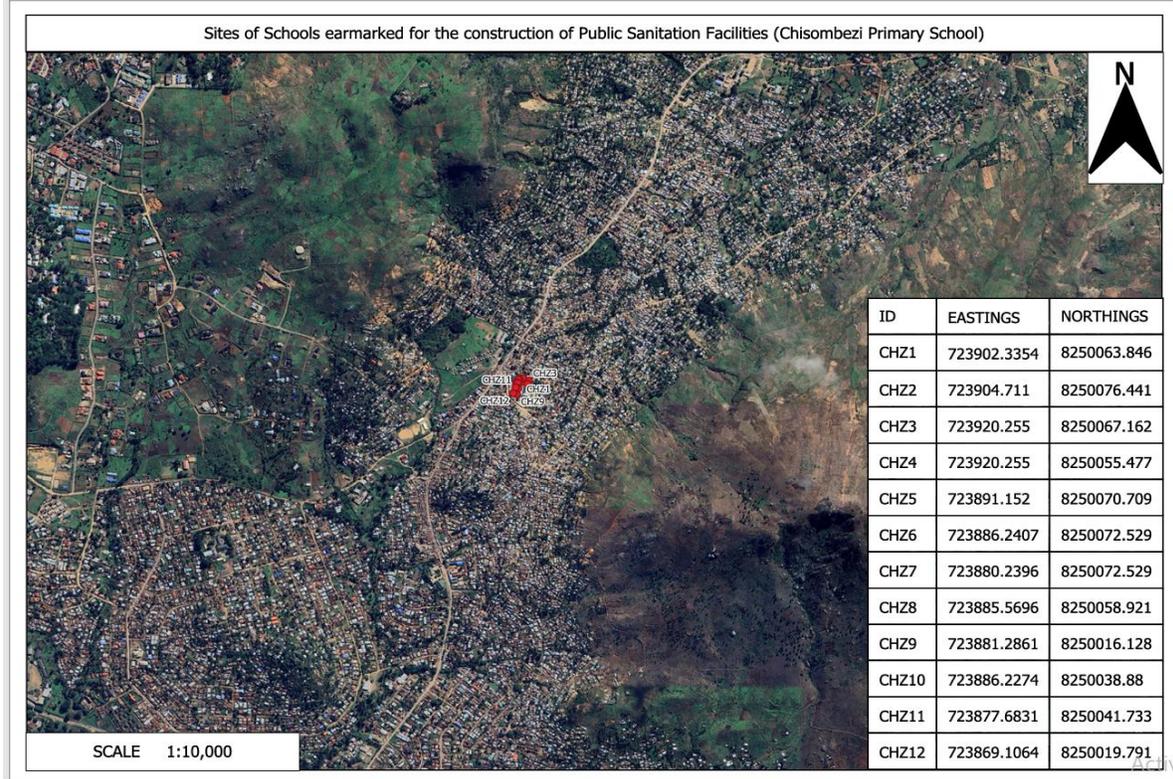
Attd: Terms of Reference for ESMP

TERMS OF REFERENCE FOR ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN FOR CONSTRUCTION OF PUBLIC SANITATION FACILITIES IN PUBLIC PRIMARY SCHOOLS IN BLANTYRE

1. Provide a brief description of the nature and location of the proposed project with respect to the name of the proponent, postal address, aim and objectives of the project, the spatial location of the site with aid of appropriate topographical maps of the area (at least at a scale 1:50,000); the estimated cost of the project, the size of land for the project sites, expected inputs and outputs, the number of people to work on the project (provide a breakdown of males and females, locals and non-locals).
2. Provide a google satellite image and site-specific visible map of the area (scale 1: 50,000) showing the proposed site and (1:10,000) showing existing establishments in the area and surrounding areas including natural endowments like rivers and streams. A site plan for the project should be provided. All maps should be in color to portray the themes clearly and must be printed on A3 paper.
3. Briefly describe main activities to be undertaken for the project during planning, construction, demobilization and operation phase. In the description include the nature of the project including detailed description of project components, project sites, type of machinery to be used, types of toilets to be constructed, type of construction materials to be used and their nature sources, land tenure and ownership status and estimated quantity of wastes (both solid and liquid) that will be generated, circularity to waste management i.e. state the means of reducing waste to a minimum by reusing and recycling of waste, facilities for appropriate waste disposal that cannot be recycle or reused, including estimated costs for the activities.
4. Briefly review the legal framework pertaining to the proposed project and indicate their impacts on the project. Reference should at least be made to Environment Management Act, Land Acts, Gender Equality Act, Gender Policy, Energy Policy, Water Resources Act, National Water Policy, Malawi National Land Policy, Public Health Act, Occupational Safety, Health and Welfare Act, National Sanitation Policy, and other policies and pieces of legislations.
5. Provide a brief description of the existing biophysical characteristics and the socio-economic environmental status of the proposed area.
6. Identify, assess and analyze environmental, social and climate change impacts associated with proposed activities at and around the site, focusing on both the positive and negative impacts. In the analysis distinguish between significant positive and negative impacts, direct and indirect impacts, immediate and long terms impacts, reversible and irreversible and cumulative impacts.

- Chapter 3: Review of Policy and Legal Framework
- Chapter 4: Assessment of Biophysical and Socio-economic Baseline Information
- Chapter 5: Identification and Analysis of Impacts
- Chapter 6: Environmental and Social Management and Monitoring Plans
- Conclusion and Recommendations
- Reference/Bibliography
- Appendices/Annexes

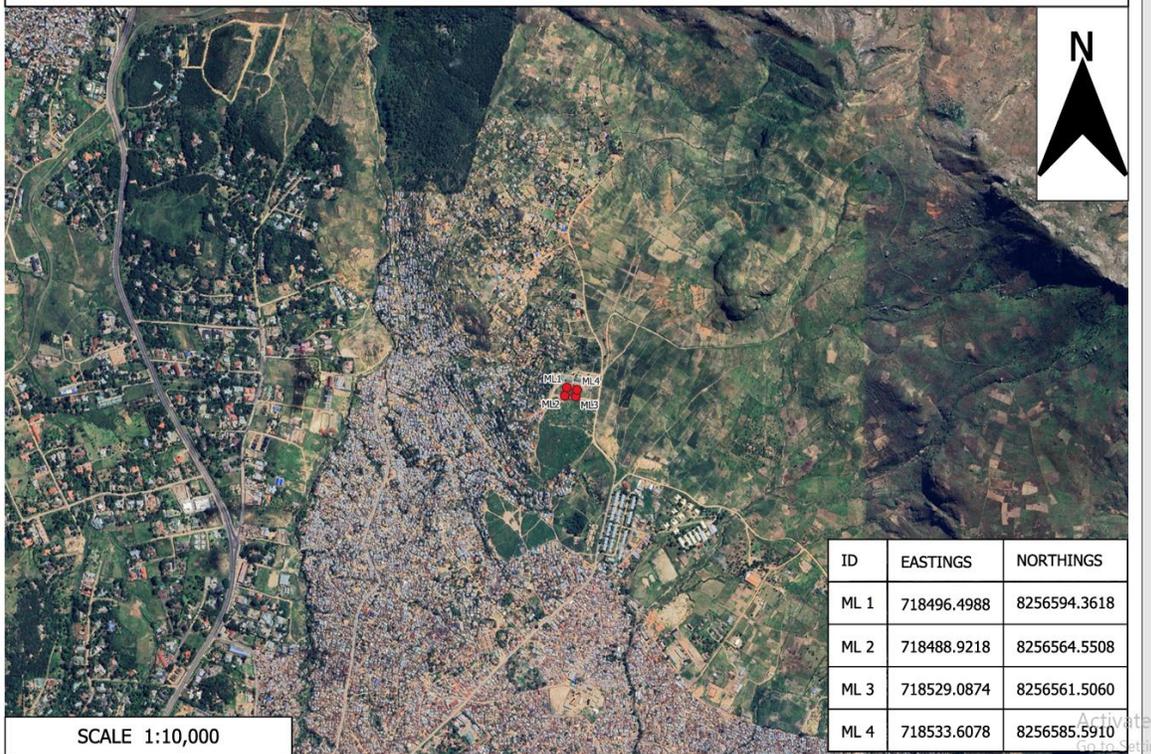
APPENDIX 15: AERIAL MAPS FOR SITES EARNMARKED FOR THE CONSTRUCTION OF PSF IN PRIMARY SCHOOLS



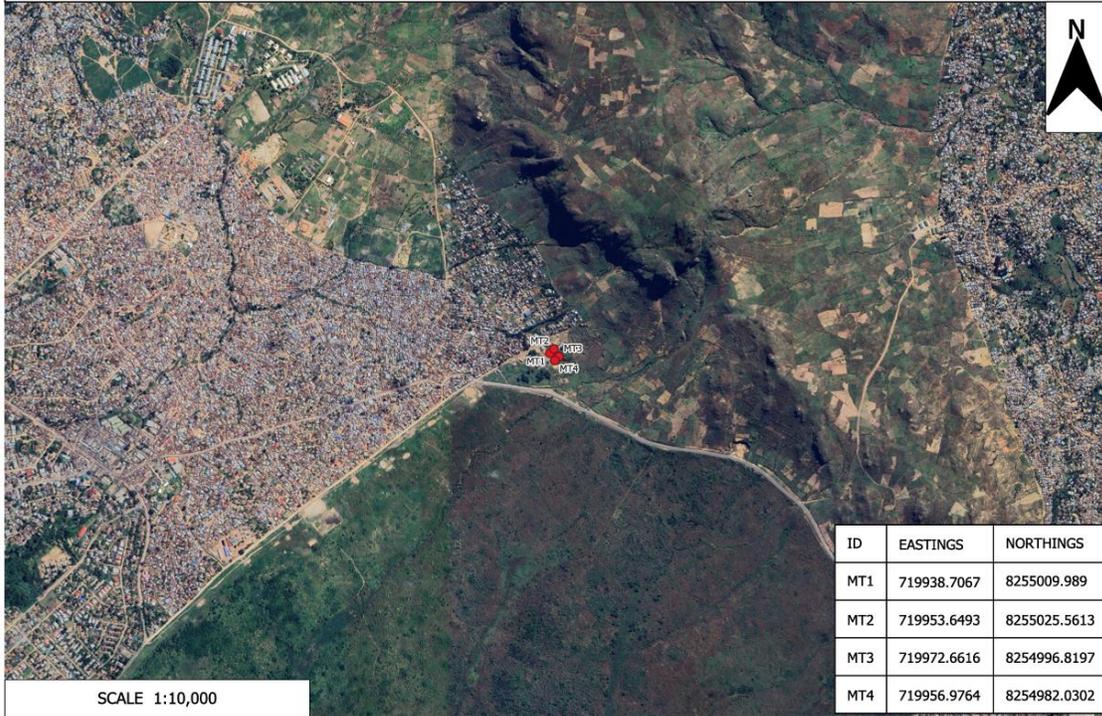
Sites of Schools earmarked for the construction of Public Sanitation Facilities (Kapeni Primary School)



Sites of Schools earmarked for the construction of Public Sanitation Facilities (Malabada Primary School)



Sites of Schools earmarked for the construction of Public Sanitation Facilities (Matope L.E.A School)



Sites of Schools earmarked for the construction of Public Sanitation Facilities (Namatapa Primary School)

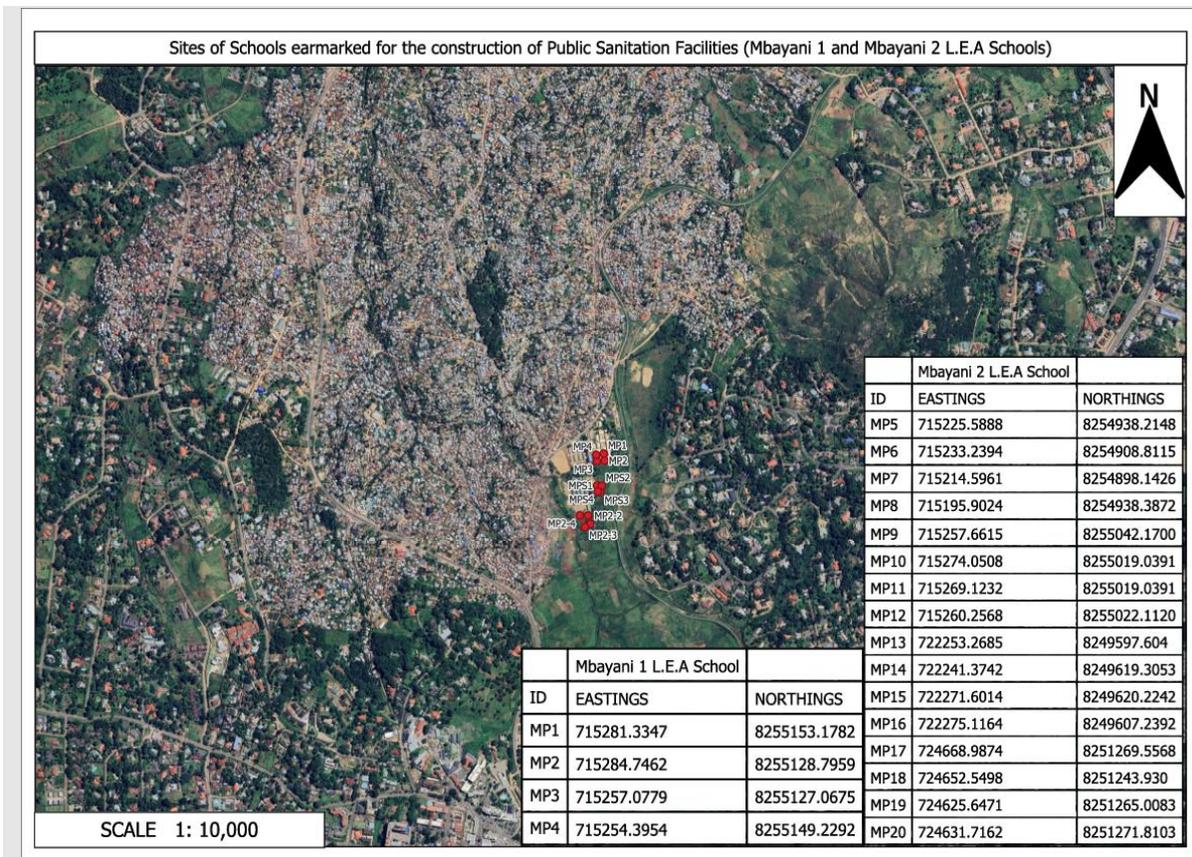


Sites of Schools earmarked for the construction of Public Sanitation Facilities (Sigelege Primary School)



SITES OF SCHOOLS EARMARKED FOR THE CONSTRUCTION OF PUBLIC SANITATION FACILITIES (MPINGWE PRIMARY SCHOOL)





APPENDIX 16. DETAILS OF EXPERTS AND THEIR ROLE

No.	Name of the expert	Role	Qualification
1.	Susan Namangale (Enviromental and Social Expert)	Team leader	<ul style="list-style-type: none"> • MSc. in Business Administration, • Post Graduate Diploma in Financial Management and Management, • BSc in Environmental Science and Technology, • Diploma in Laboratory Technology
2.	Alberto Rozalio	Social Safeguards Specialist	<ul style="list-style-type: none"> • MSc in Land Governance, (Pending), Malawi University of

No.	Name of the expert	Role	Qualification
			Business and Applied Sciences <ul style="list-style-type: none"> • MSc in Development Studies (Social Science), University of Malawi, Chancellor College (2023) • Bachelor of Social Science, major in Sociology and minor in Human Resource Management, University of Malawi, Chancellor College (2010).