MALAWI GOVERNMENT

MINISTRY OF EDUCATION

SKILLS FOR A VIBRANT ECONOMY (SAVE)

P172627

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

FOR

LIVINGSTONIA AND MZUZU TECHNICAL COLLEGES CONSTRUCTION PROJECTS

August 2025

EXECUTIVE SUMMARY

I. Introduction

The World Bank is supporting the Malawi Government through the Ministry of Education (MoE) and the Ministry of Labour in implementing the Skills for A Vibrant Economy (SAVE) project. The project is rated moderate risk according to the World Bank project categorisation. The main objective of this project is to increase access, particularly for females, to labour market-relevant skills development programs in participating institutions. The project has four (4) main components, of which components 1 and 2 are relevant to this project. These components support public higher institutions of learning and Technical, Entrepreneurial, and Vocational Education and Training (TEVET), respectively, in increasing equitable access to market-relevant skills development programs. The components will support the construction project at Livingstonia and Mzuzu Technical Colleges in Rumphi and Mzimba districts, respectively, both located in the northern region of Malawi. Specifically, the projects include the construction of a 2-storey building with 2 ICT laboratories, classrooms and staff offices at Livingstonia Technical College, Additionally, the project also involves the construction of a 2-storey building with plumbing and welding workshops, classrooms, staff offices and an ICT laboratory at Mzuzu Technical College in Mzimba District. To avoid and mitigate E&S risks arising from the implementation of this project there is a need to prepare an environmental and social management plan to ensure that environmental and social risks are identified, managed, and mitigated effectively throughout the project lifecycle. This Environmental and Social Management Plan (ESMP) has been prepared following the recommendations made after project screening exercises conducted by Livingstonia Technical College (LTC) and Mzuzu Technical College (MTC) in coordination with the Malawi Environment Protection Authority (MEPA). The main goal of the study is to prepare an Environmental and Social Management Plan (ESMP) for the planned construction activities at Livingstonia and Mzuzu Technical Colleges, ensuring it aligns with both national and international standards before the start of civil works under the SAVE project.

The detailed objectives of the ESMP are to:

- Identify and assess key potential environmental and social impacts, including those on gender, which may be caused by the proposed construction works.
- propose measures that would enhance the positive effects of the proposed constructions and operation activities on both the environment and social components, including gender issues in specific sites;

- propose measures that will mitigate the anticipated negative impacts of the proposed constructions and operation activities on both the environment and social components, including gender concerns in specific sites;
- conduct stakeholder consultative meetings which inform project key environment, social risks, and mitigation measures;
- Develop a costed ESMP and monitoring plan with clear lines of responsibility for key stakeholders.

Identification of mitigation measures in this ESMP complies with the World Bank EHS Guidelines, and ESF (which support green, resilient and inclusive development by protecting people and the environment and making important advances in areas such as labour, inclusion and non-discrimination, gender, climate change, biodiversity, community health and safety, and stakeholder engagement) and national laws and regulations, to minimize negative impacts on the biophysical environment and socio-economic environment during construction to operational phases. This is to ensure that the construction projects are implemented sustainably. It also outlines approaches, implementation arrangements, and stakeholder engagement.

II. Summary of Potential Environmental and Social Risks

(i) Potential Environmental Risks

- Increased dust emissions
- Increased generation of waste
- Increased noise pollution
- Reduced biodiversity (grass, trees and invertebrates) at the construction site.
- Increased energy demand
- Increased soil erosion
- Increased generation of hazardous waste and E waste
- Increased water demand
- Wastewater Discharges and Improper Sanitation
- Increased land degradation and soil contamination from spills
- Increase in Water Consumption
- Degradation of Vegetation and Habitat Loss impacting local flora and fauna
- Increased risk of community health and safety
- Health and Safety Risks Due to Fire Hazards
- Community Health and Safety Risks

- Stormwater runoff management
- Reduced water quality

(ii) Social Risks

- Occupational Health and Safety
- Disruption of the Provision of Education Services
- Increased risk of Gender-Based Violence (GBV) and Sexual Harassment
- Increased anxiety amongst LTC & MTC Students and Staff Members
- Increased accidents and injuries
- Safety risks to students and pedestrians
- Increased risk of Child Labour
- Increased risk in spread of STIs, including HIV/AIDS
- Increased school dropout & increased pregnancies among young girls
- Increased risk of theft
- Decreased employment and business opportunities
- Increased risk of marriage breakups
- Increased risk of labour rights violations e.g. unequal access to job opportunities
- Increased disruption of Traffic and decreased access to surrounding areas

On a positive note, the project will create job opportunities as more skilled and unskilled labourers will be employed. The implementation of the project will also boost local businesses as the demand for different products will be high, hence improving people's standard of living. In addition, the project will improve the quality of education due to the provision of modern teaching and learning materials and infrastructure. The number of students enrolled on tertiary education will also increase.

III. Integrated Environmental and Social Safeguard Plans for Impact Mitigation

To operationalize the environmental and social safeguards, contractors must attach a Contractor Environmental and Social Management Plan (CESMP) to the bidding document, indicating how

the impacts identified in this ESMP will be addressed. This report provide an outline of the specific plans to be included in the CESMP and include; Workers Grievance Redress Mechanism (WGRM), Health Workplace Policy, Environmental Social Commitment Plan (ESCP), Gender Based Violence Management Plan (GBVMP), Labour Management Plan (LMP), Waste Management Plan (WMP), Traffic Management Plan (TMP), Stakeholder Engagement Plan (SEP), Child Protection Management Plan (CPMP) and Code of Conduct (CoC) which will be signed by all workers under this project, written in both Chichewa and English languages. Issues concerning emergency preparedness, noise and vibrations should be included in the main CESMP. The CESMP should also include an Emergency Preparedness and Response Plan as a separate requirement to ensure readiness to respond to incidents and emergencies during construction.

It is also recommended that the Contracts should include a provision for retaining some percentage of the contract's fee for any remedial actions in case the contractors do not attend to some environmental issues. Regular monitoring and updates will be conducted to ensure the plans are implemented successfully. The total estimated cost for the implementation of the Environmental and Social Management Plan (ESMP), for Mzuzu and Livingstonia Technical College, is MWK52,000,800.00 and MK59,000,800.00, respectively.

IV. Implementation Arrangement

The implementation arrangements nd responsible parties for the ESMP are outlined at the national and regional levels, including MEPA, the Ministry of Education, PIU, Local Field Staff, and Local Contractors. Training will be coordinated at the national level and provided at the regional level to ensure effective implementation of the ESMP. Responsible entities, including the project proponent (Livingstonia and Mzuzu Technical Colleges), Government Officers, Contractors and Local Leaders from both colleges will monitor the project's risks and impacts, employing methods such as sensitization and training, site visits, regular meetings, written reporting, and frequent monitoring of internal drainage systems and energy and water usage. A separate stakeholder Engagement Plan (SEP) has been prepared for the project, based on the World Bank's Environmental and Social Standard 10 on Stakeholder Engagement. The SEP can be found using the following link:

https://documents1.worldbank.org/curated/en/314131616158364147/pdf/Stakeholder-Engagement-Plan-SEP-Skills-for-A-Vibrant-Economy-Project-P172627.pdf

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LIST OF ACRONYMS AND ABBREVIATIONS

AIDS Acquired Immune Deficiency Syndrome

CBO	Community Based Organisation
CDSS	Community Day Secondary School
CESMP	Contractor Environmental and Social Management Plan
COVID	Corona Virus Disease
CPMP	Child Protection Management Plan
DESC	District Environmental and Sub-Committee
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
EDO	Environmental District Officer
ESCOM	Electricity Supply Corporation of Malawi
ESCP	Environmental and Social Commitment Plan
ESF	Environmental and Social Framework
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESRS	Environmental and Social Risks Summary
ESSs	Environmental and Social Standards
GBV	Gender Based Violence
GBVMP	Gender Based Violence Management Plan
GPS	Global Positioning System
GRM	Grievance Redress Management
GRMC	Grievance Redress Management Committee
HIV	Human Immunodeficiency Virus
HR	High Risk

ICT	Information and Communication Technology
IT	Information Technology
LR	Low Risk
LTC	Livingstonia Technical College
MEPA	Malawi Environment Protection Authority
MoE	Ministry of Education
MR	Moderate Risk
MTC	Mzuzu Technical College
N/A	Not Applicable
NCHE	National Council for Higher Education
NCIC	National Construction Industry Council
NEP	Nation Education Policy
NGOs	Non-Governmental Organizations
NWRA	National Water Resource Authority
OSHW	Occupation Safety, Health and Welfare
PAD	Project Appraisal Document
PIU	Project Implementation Unit
PPEs	Personal Protective Equipment
PVC	Polyvinyl Chloride
SAVE	Skills for A Vibrant Economy
SEP	Stakeholders Engagement Plan
SR	Substantial Risk
STIs	Sexually Transmitted Infections

TEVETA	Technical, Entrepreneurial, and Vocational Education and Training Authority
TMP	Traffic Management Plan
ToRs	Terms of References
UNILIA	University of Livingstonia

CHAPTER 1: INTRODUCTION

The Government of Malawi, through the Ministry of Education and the Ministry of Labour and Vocational Training, with funding from the World Bank, is implementing the Skills for a Vibrant Economy Project (SAVE). The SAVE Project duration is for 5 years (2022-2026). The project aims to improve access to market-relevant skills programs in priority areas of the economy, ensuring equity in skills training with empowerment of women and girls and vulnerable youth through targeted skills in priority areas of the economy, creating a conducive policy environment and strengthening systems and institutional capacity for skills development. The project has four components: Technical, Entrepreneurial, Vocational Education and Training (TEVET), Higher Education Reforms, Student loans, Industrial links, Digital technology and Safeguards, Capacity Building, and Technical Assistance, among other systemic issues. The project is rated moderate risk. This categorisation means that project risks are mostly site-specific, manageable, and can be mitigated using standard measures, requiring regular monitoring by the implementing agencies, including the Ministry of Education, the Ministry of Labour and Vocational Training, the Malawi Environmental Protection Authority, Livingstonia Technical College (LTC) and Mzuzu Technical College (MTC).

The project focuses on expanding access to higher education, particularly for women, by offering labour market-relevant skills development programs. The construction project involves developing infrastructure at Livingstonia Technical College in Rumphi District and Mzuzu Technical College in Mzimba District, in the northern region of Malawi. The construction of these facilities will run from August 2025 to May 2026 (10 Months). The proposed projects include building a 2-storey building with 2 ICT laboratories, classrooms and staff offices at Livingstonia Technical College. Additionally, the project will also involve the construction of a 2-storey building with plumbing and welding workshops, classrooms, staff offices and an ICT laboratory at Mzuzu Technical College in Mzimba District, enhancing educational facilities and infrastructure in the region and Malawi as a whole. The project cost for construction at Mzuzu Technical is MK2,100,000,000.00, of which MK 52,000,000.00 will be used for implementation of ESMP and at Livingstonia Technical is MK2,200,000,000.00, of which MK59,000,000.00 will be used to implement the intervention presented in the ESMP. The proposed building at Livingstonia will occupy 0.4 hectares of land owned by the college, located to the south of the college offices and the University of Livingstonia. The site is currently underutilised and consists mainly of open land with grass

cover. In Mzuzu, the project site is situated within the existing campus, north of St. Thomas Parish in Mzuzu City. The land is largely bear with patches of grass. Surrounding land uses include educational facilities, residential areas, and local access roads.

The Environmental and Social Management Plan (ESMP) has been developed to strengthen the environmental and social due diligence for the Skills for a Vibrant Economy (SAVE) project, which the World Bank funds. One ESMP has been produced to cover two institutions due to their geographical locations, similar project activities, shared environmental and social risks, aligned implementation timelines and the World Bank recommendation The ESMP was recommended following a screening exercise conducted by the Livingstonia Technical College (LTC) and Mzuzu Technical College (MTC) in collaboration with the MEPA (**Appendix 2**).The ESMP also considers the needs of vulnerable and disadvantaged groups, including girls, people with disabilities, and other at-risk communities, ensuring equitable access to project benefits and risk mitigation measures. A project-level Grievance Redress Mechanism (GRM) has been established to address any complaints or grievances from workers and communities during project implementation.

The ESMP has been developed in compliance with the World Bank's Environmental and Social Framework (ESF), EHS Guidelines and aligns with Malawi's national policies and regulations, including the Environmental Management Act, Employment Act, Public Health Act, Child Care, Protection and Justice Act, Occupational Safety, Health and Welfare Act, Gender Welfare Act, and the Constitution of the Republic of Malawi, which is the supreme law of the country. This Environmental and Social Management Plan (ESMP) has been prepared per the World Bank's Environmental and Social Framework (ESF), addressing the relevant Environmental and Social Standards (ESS1, ESS2, ESS3, ESS4, ESS5, ESS6, ESS8, and ESS10).

The main environmental risks identified during project screening include dust emissions, waste generation, noise pollution, soil erosion, increased energy and water demand, hazardous waste generation, reduced biodiversity, and health and safety risks to both workers and communities. Key social risks include disruption of education services, gender-based violence (GBV) and sexual harassment, increased risk of child labour, spread of STIs including HIV/AIDS, increased school dropout and pregnancies among young girls, increased accidents and injuries, and community health and safety concerns. These risks have been addressed through mitigation measures proposed in this ESMP.

The purpose of this ESMP is to assess and mitigate potential environmental and social risks and impacts associated with the project in accordance with the World Bank's Environmental and Social Standards (ESSs) and national requirements. Specifically, the ESMP aims to:

- Assess the potential environmental and social risks and impacts of the proposed project and propose mitigation measures
- Establish procedures for environmental and social screening, review, approval, and implementation of project activities.
- Define roles and responsibilities, as well as reporting procedures, for managing environmental and social issues related to the project.
- Identify staffing requirements, training, and capacity-building needs for successful implementation of the ESMP.
- Address public consultation, document disclosure, and grievance redress mechanisms, and
- Determine budget requirements for ESMP implementation.
- promote sustainable practices for longer-term benefits.

This ESMP should be read alongside the Stakeholder Engagement Plan (SEP) and the Environmental and Social Commitment Plan (ESCP) developed for the SAVE project. Additionally, there are specific plans that include the Labour Management Plan (LMP), Gender-Based Violence Management Plan (GBVMP), Child Protection Management Plan (CPMP), and Traffic Management Plan (TMP). Other documents include the Workers' Grievance Redress Mechanism (WGRM), Code of Conduct (CoC), COVID-19 Construction Site Prevention Guidelines, Waste Management Plan (WMP), Occupational Health and Safety Management Plan (OHSMP), and Environmental and Social Commitment Plan (ESCP). Furthermore, contractors will be required to prepare a CESMP aligned with this ESMP, outlining specific mitigation measures, monitoring, and reporting requirements. The ESMP also considers potential cumulative impacts, including resource use, waste generation, and potential impacts on community infrastructure from multiple construction activities. Any chance finds or discoveries of cultural significance during construction will be managed using the Chance Finds Procedure, and work will stop until relevant authorities are consulted. Occupational health and safety risks will be managed through compliance with the World Bank EHS Guidelines and the national Occupational Safety, Health and Welfare Act.

CHAPTER 2: PROJECT DESCRIPTION

2.1 Project Cost, Duration and Workers

The SAVE Project is scheduled to run for five years, from 2021 to 2026. Construction of the buildings at both Mzuzu and Livingstonia Technical Colleges is expected to begin in August 2025, once all necessary approvals and permits are in place. The construction is planned to be completed within 10 months. The estimated construction cost is MWK 2.1 billion for Mzuzu and MWK 2.2 billion for Livingstonia. Out of this, MWK 52 million and MWK 59 million, respectively, have been allocated for implementing the Environmental and Social Management Plan (ESMP). Each construction site is expected to employ around 60 workers, including technical personnel, unskilled labourers, and drivers. To promote gender balance, 40% of the workforce (approximately 24 workers) will be women across all employment categories. Moreover, about 65% of the workforce will be unskilled labourers recruited from nearby communities. Table 2-1 Depict both skilled and unskilled workers, and their roles.

Contractors at both sites are required to ensure a safe working environment in compliance with the World Bank Environmental, Health and Safety (EHS) Guidelines, including: General EHS Guidelines (2007), Construction and Decommissioning Guidelines (2007), Water and Sanitation Guidelines (2007), Waste Management Facilities Guidelines (2007), Community Health and Safety (CHS) Guidelines (2007)

To uphold hygiene standards, contractors must provide mobile toilets for workers, with separate facilities for men and women, maintaining a minimum ratio of 1 toilet per 20 workers as per the National Sanitation Policy. Alternatively, the contractor may construct two permanent toilets—one for each gender, which can either be demolished post-construction or retained if they meet acceptable standards. Additionally, workers will receive training on equipment safety, hazard awareness, and preventive measures. They will also be supplied with appropriate personal protective equipment (PPE), as mandated by the Occupational Safety, Health and Welfare Act.

Table 2-1: Estimated construction workforce

Role	Number of People	Responsibility
Project Management	5 – 6	Includes Project Manager, Site Engineer, Site Supervisors, and Health and Safety Officer. Responsible for overall project coordination, technical oversight, daily supervision, and ensuring safety protocols.

Skilled Labour	33-51	Includes Masons, Carpenters, Electricians, Plumbers, Painters, Tilers, and Roofers. Responsible for building walls, woodwork, electrical and plumbing installations, painting, tile laying, and roofing tasks.
Semi-Skilled Labour	33-51	Includes Assistant Masons, Assistant Carpenters, Assistant Electricians, Assistant Plumbers, Assistant Painters, Assistant Tilers, and Assistant Roofers. Responsible for assisting skilled workers in their tasks.
Unskilled Labour	22-28	Includes General Labourers and Cleaners. Responsible for various unskilled tasks such as carrying materials, cleaning, and assisting skilled workers.
Specialised Personnel	3 – 5	Includes Surveyors, Geotechnical Engineers, and Quality Control Inspectors. Responsible for land and building surveys, soil testing, geotechnical analysis, and ensuring quality standards are met.
Support Staff	6 - 12	Includes Security Personnel, Administrative Staff, and Drivers/Operators. Responsible for site security, administrative tasks, documentation, and operating construction vehicles and machinery.

2.2 Materials and Equipment Requirements for Project Activities

The construction of both buildings at Mzuzu and Livingstonia Technical Colleges, as well as their substructures and superstructures, will require various types of machinery. Crawler dozers will be used for site clearing, while excavators will handle foundation digging. Concrete mixers and vibrator pokers will be necessary for concrete work, and tippers will transport materials such as quarry stones, gravel, and sand. Table 2-2 outlines the key plants, equipment, and materials needed for the construction of the facilities in both institutions. It also highlights the inputs required and the expected outputs or by-products resulting from the use of these machines and materials.

Table 2-2: Summary of main inputs and outputs from the proposed project

Material	Estimated Qty	Usage	Source of Material	Mode of Transportation
Cement	2500 bags	Used for concrete foundations, mortar for brickwork, plastering, and screed flooring	Supplier from Mzuzu City/Rumphi District	Truck
Sand	150 cubic meters	Used in concrete mix, mortar mix, and plastering	Local Supplier	Truck
Gravel	100 cubic meters	Used in concrete mix for foundations and floor slabs	Local supplier	Truck
Concrete Blocks	8000 blocks	Used for constructing walls and partitions	Local supplier	Truck

Material	Estimated Qty	Usage	Source of Material	Mode of Transportation
Steel Reinforcement	10 tonnes	Used for reinforcing concrete foundations, columns, and slabs	Local supplier	Truck
Roofing Sheets (IBR)	1500 square meters	Used for roofing the entire building	Local supplier	Truck
Steel Trusses	50 trusses	Used for supporting the roofing sheets	Local supplier	
Tiles (600 x 600 mm)	2000 square meters	Used for flooring in offices, corridors, and specific rooms	Local suppliers and imported ensure compliance with Malawian standards and regulations	Truck
Ceramic Wall Tiles	500 square meters	Used for walls in wet areas such as toilets and HR room	Local suppliers and imported ensure compliance with Malawian standards and regulations	Truck
Paint (Acrylic PVA)	2000 litres	Used for painting internal and external walls	Local supplier	Road truck
Electrical Cables	5 km	Used for wiring the building for electrical installations	Local supplier	Road truck
Plumbing Pipes (PVC)	2 km	Used for plumbing installations including water supply and drainage	Local supplier	Road truck
Doors (Wooden/Metal)	50 units	Used for providing access to various rooms	Local suppliers and imported ensure compliance with Malawian standards and regulations	Road truck
Windows (Aluminium)	80 units	Used for natural lighting and ventilation in various rooms	Local suppliers and imported ensure compliance with	Road truck

Material	Estimated Qty	Usage	Source of Material	Mode of Transportation
			Malawian standards and regulations	
Glass Panes	500 square meters	Used for windows and certain partitions	Local suppliers and imported ensure compliance with Malawian standards and regulations	Road truck
Suspended Ceiling Panels	1500 square meters	Used for ceiling finishes throughout the building	Local suppliers and imported ensure compliance with Malawian standards and regulations	Road truck
Termite Treatment	100 litres	Used for foundation treatment to prevent termite infestation	Local supplier	Road truck
Concrete for Foundation	200 cubic meters	Used for constructing the strip foundation	Local supplier	Road truck
PVC Flooring	200 square meters	Used for specific areas requiring resilient flooring	Local supplier and imported ensuring compliance with Malawian standards and regulations	Road truck
Waterproofing Material	300 square meters	Used for waterproofing foundations and wet areas	Local supplier	Road truck
Miscellaneous Fixtures	Various	Includes screws, nails, hinges, and other small materials used in construction	Local supplier	Road truck
Water	50000 litres	Used for concrete mixing, curing, and general construction needs	Nearest river	Water bowser

Material	Estimated Qty	Usage	Source of Material	Mode of Transportation
Energy (Electricity)	10000 kWh	Used for powering construction equipment, lighting, and other electrical needs	ESCOM	Connect from existing lines

2.3 Construction Waste Generation and Management

The project is expected to produce different types of waste. Table 2 3 shows the expected type of waste and proposed management measures in two institutions.

Table 2-3: Estimated waste types and quantities

Type of Waste	Description	Estimated Qty
Concrete Waste	Excess concrete from mixing and spillage	5 cubic meters
Brick/Block Waste	Broken or unused bricks and concrete blocks	50 blocks
Wood Waste	Offcuts from carpentry work, including formwork	2 cubic meters
Metal Scrap	Offcuts from steel reinforcement and other metal works	1 tonne
Roofing Material Waste	Offcuts and damaged roofing sheets	25 square meters
Tile Waste	Broken or unused floor and wall tiles	25 square meters
Paint Waste	Leftover paint and empty paint cans	10 litres
Electrical Waste	Offcuts from electrical cables and wiring	5 meters
Plumbing Waste	Offcuts from PVC pipes and fittings	5 meters
Packaging Waste	Packaging materials from construction supplies (plastic, cardboard)	50 kg
General Construction Debris	Mixed waste including small offcuts, nails, and miscellaneous materials	5 cubic meters
Soil and Excavation Waste	Excess soil and rubble from excavation works	10 cubic meters
Hazardous Waste	Used chemical containers, including termite treatment and waterproofing materials	5 litres
Wastewater	wastewater and slurry	176 to 352 cubic metres

2.4 ESMP Development Approach and Methodology

To achieve the assignment's objectives, the consultant undertook a multi-stage process, beginning with reviewing the Terms of Reference (ToRs) for both Mzuzu and Livingstonia Technical Colleges. The consultant also went through several stages, including mobilising resources, conducting literature reviews, reconnaissance surveys, writing inception reports, holding consultations and stakeholders' meetings, conducting field surveys, assessing potential impacts, and ultimately developing a comprehensive Environmental and Social Management Plan (ESMP). The following are the methodologies used by the consultant for the development of this ESMP.

i. Kick-off Meeting and Resource Mobilisation

The ESMP process started with the Kick-Off meeting, which was aimed at getting a detailed understanding of the project. The consultant mobilised resources before the commencement of the reconnaissance survey. This, among others, includes: field equipment, software for on-site identification of plants, a camera, maps, GPSs, a compass, a geological hammer and satellite images. The consultant had interactions with clients during this period as well.

ii. Reconnaissance Survey

This was aimed at establishing the spatial extent of the project boundaries, familiarization with the project and project targeted locations, and strategizing and refining methodologies. The consultant also conducted a quick reconnaissance survey to collect preliminary baseline information which guided the definition and analysis of the project. The site visit gave the consultant the bigger picture of the proposed areas and existing conditions. Preliminary information collected in the project areas during this exercise included climate, geology, soil type, road networks, socio-economic conditions of the area, existing properties and land use maps. The reconnaissance visits helped the consultant in planning on where to conduct detailed studies, taking into consideration suitable habitats and existing infrastructure.

iii. Development of Inception Report

The consultant developed the inception reports for Mzuzu Technical College and Livingstonia Technical College to show the mutual understanding of the action plan and timeline for conducting the evaluation. The Inception Report also provided addition guarantee of adherence to, and interpretation of the Terms of References (ToRs).

iv. Main Field Work Including Stakeholder Consultations

This stage consisted of detailed studies focusing on collecting physical, biological and socio-economic baseline conditions of the project areas in both institutions. The proposed project infrastructures' spatial data sets were reviewed and overlain on high-resolution satellite imagery to confirm visual alignment of the planned subprojects against existing infrastructures on the ground in harmony with the primary data that was collected with Global Positioning System (GPS). The field data collection was done on sites where proposed structures will be built and indirect impact areas from ancillary structures. Lithology, soil characteristics and geological structures were observed and interpreted to infer possible project impacts on the underlying geology and soils.

More information on biophysical, socio-economic and environmental aspects was collected through engaging nearby communities and Rumphi and Mzimba district councils using various scientific methodologies as well as tools for assessing socio-economic impacts of the proposed construction projects. Based on the nature of the settlement pattern, the consultant used Key Informant Interviews and Focus Group Discussions for the communities within the project areas and a Census approach in administering a household questionnaire around the project areas. The consultative meetings were also conducted with Rumphi and Mzimba Districts Environmental Sub-Committees (DESCs). The list of stakeholders consulted includes:

- **National Level Stakeholders:** Ministries of Education (MoE), Gender, Labour, Youth, TEVETA, NCIC, Loans Board and NCHE.
- **District Level Stakeholders:** DESC Members (including Environment Officer, District Gender Officer, District Social Welfare Officer, District Labour Officer, selected CSOs on gender, rights and environment) and Water User Associations (Livingstonia CCAP Church, School, hospital, UNILIA, CDSS, Mzuzu Parish and Mzuzu City Council)
- **Local Level Stakeholders:** Students, IT members, Lectures/instructors, Surrounding community members, CBOs.

v. Chance Finds

Chance Find Procedure is a step-by-step procedure that outlines what needs to be done when projects come across archaeological sites, historical sites, remains and objects, including graveyards or individual graves during excavations or construction. This procedure relates to ESS

8 Cultural Resources of the World Bank. These standard addresses physical cultural resources, which are defined as movable or immovable objects, sites, structures that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be in urban or rural settings and may be above or below the ground. In this project, the consultant followed the guidelines and developed a generic procedure for the Livingstonia Technical College and Mzuzu Technical College, which can even be used for future projects.

vi. Grievance Redress Mechanism (GRM)

The consultant acknowledged that any project may bring conflicts between the developer and the affected people. Conflicts may also arise among project workers. In line with this, the consultant reviewed and recommended any changes necessary to the existing structure of the Grievance Redress Mechanism (GRM) at Livingstonia and Mzuzu Technical Colleges to address any conflict or complaints that may arise during project implementation.

2.5 Project Plan Designs and Procurement of Construction Materials

There will be no campsite during the construction of the buildings at the sites, but rather temporary site offices. The project will use existing roads within the two campuses for access to the proposed project sites. Water and energy will be sourced from existing sources, other materials such as sand, quarry will be sourced from licensed sand mining sites and quarry from licensed quarry mining companies.

2,5.1 Livingstonia Technical College

The proposed project at Livingstonia Technical College includes the construction of:

Two ICT laboratories, classrooms and staff offices to enhance digital skills training. Two workshops on the ground floor (Electrical Installation and Electronics, and Plumbing workshops) and 2 classrooms on the first floor. The workshops will be 35 metres by 10 metres in dimension with 2 rooms and custom storage units, 4 toilets, 2 for males and 2 for females and 2 shower rooms, 1 for males and 1 for females, and 2 offices. While the two classrooms will be 17 metres by 9 metres each, with one store room and an adjustable whiteboard. The ICT Centre will be 35 metres by 20 metres with an E-library, computer room, reception, server room, librarian's office, visual and audio rooms, a reprography room, toilets, study and store rooms.

The construction works will also include supporting infrastructure such as: drainage systems to manage stormwater, connection to existing water supply lines, electrical installations including grid and solar power connections, and walkways for accessibility. Landscaping will involve planting grass and trees around the new buildings, installing perimeter fencing for security, and developing access roads and parking areas to accommodate staff and students.

Utilities to be installed will include: power supply lines (including provision for 3-phase power), water supply connections from existing college infrastructure, and telecommunications links for ICT connectivity.

The procurement of construction materials such as river sand, gravel and quarry for the project will be sourced locally around the Livingstonia area from licensed agents.

2.5.2 Mzuzu Technical College

The project will involve the construction of a 2-storey building with plumbing and welding workshops, classrooms, staff offices and an ICT laboratory . The ground floor will comprise a plumbing workshop, fabrication & welding workshop and two classrooms. All buildings will have access for physically challenged people and a 3-phase power supply. The plumbing workshop with a capacity of 30 students will have two staff offices, two storage rooms, 4 toilets (male and female), 2 for males and 2 for females, showers and wash basins for males and females. The fabrication and welding workshop will also have a capacity of 30 students for working space. The workshop will also have a Fume Extractor, Manifold system, 2 cylinder rooms, two staff offices, two storage rooms, toilets (male and female), showers and washing basins, The classrooms will also have a capacity of 30 students. And comprises a store room, a lecturer's office, white boards and furniture.

The 1st floor will have one ICT Laboratory, and two classrooms will be on the 1st floor and easily accessible to the physically challenged. These rooms will also have a capacity of 30 students and male and female toilets. The ICT laboratory will have a server room, a technician's office, a lecturer's office and a store room. The two classrooms will have a store room, a lecturer's office, a whiteboard and furniture.

The construction works will also encompass essential supporting infrastructure, including stormwater drainage systems, integration with existing water supply networks, installation of a 3-phase power supply, and development of walkways to improve mobility for students and staff.

Landscaping activities will involve grass planting, paving of access roads, and the erection of perimeter fencing to enhance both security and the visual appeal of the campus. Utility installations will include a dependable water supply utilising existing campus infrastructure, 3-phase electricity connections, and ICT infrastructure to facilitate e-learning initiatives.

To ensure compliance with national environmental standards, construction materials such as river sand, gravel, and quarry stone will be procured from licensed suppliers within the Mzuzu area.

2.6 Description of Biophysical Environment of the Project Site

2.6.1 Livingstonia Technical College

the proposed sites for construction of Two 2-storey buildings for workshops and classrooms, and ICT centre building are located within the same college campus on the bare land with grass cover only. These sites are around existing college library. Figure 2-1 presents an aerial view of the proposed project sites at Livingstonia Technical College. The topographic map of Livingstonia Technical College showing project site have been attached in Appendix 15. The area is a bit slope towards western side with brownish sandy loam soils. Just few meters away to the eastern side, there is a main road leading to Livingstonia Technical College and Livingstonia Synod headquarters. About 70 meters to southwest, there is a college football ground.

2.6.2 Mzuzu Technical College

The proposed project sites for the construction of a Two-Storey Building are situated within the Mzuzu Technical College Campus in Mzuzu City, Mzimba district. The Two-Storey Building will be constructed 4 meters north of the tarmac road leading to the campus administration, while the administration block is located to the south. The Automobile Workshop to be rehabilitated is located 7 meters northwest of the site. The site for the Two-Storey Building is covered by St Augustine grass, lantana, and tall Loblolly pine trees in the boundary, none of which are of conservation concern. Figure 2-2 shows a satellite imagery map of the proposed project site at Mzuzu Technical College. The detailed topographic map of the site is provided in Appendix 15.

Figure 2-1-0-1: Satellite Imagery Map of Livingstonia Technical College Showing Project Sites

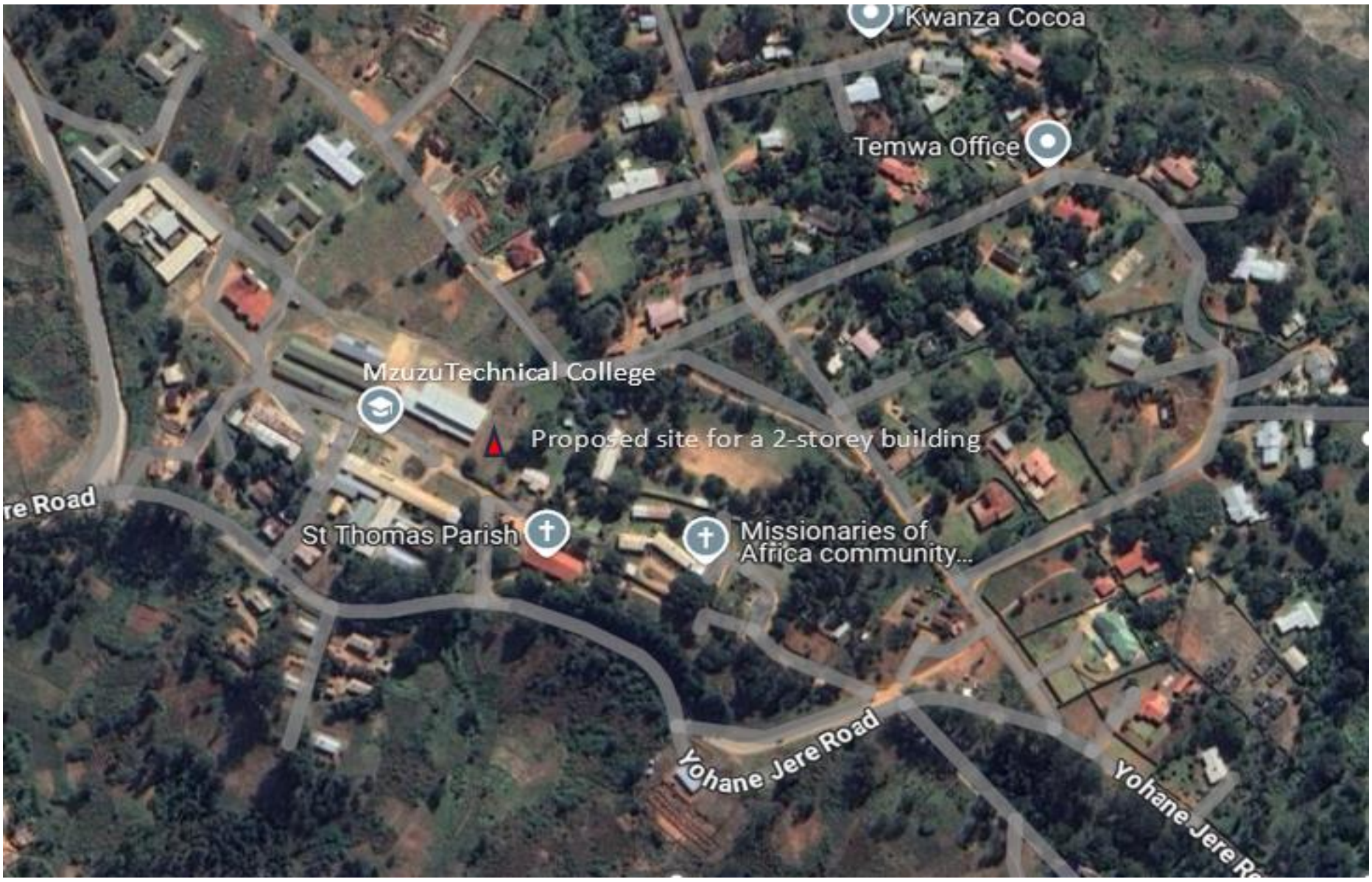


Figure 0-2: Satellite Imagery Map of Mzuzu Technical College Showing Project Site

CHAPTER 3: POLICY AND LEGAL FRAMEWORK

The Environmental and Social Management Plan (ESMP) adheres to relevant environmental legislation (outlined in Table 3.1), guiding the implementation and operation of construction projects at Livingstonia Technical College and Mzuzu Technical College. This includes the construction of a 2-storey building with 2 ICT laboratories, classrooms and staff offices at Livingstonia, and a 2-storey building with plumbing and welding workshops, classrooms, staff offices and ICT laboratory at Mzuzu Technical College. This will help to ensure environmental compliance and sustainability throughout the project lifecycle.

3.1. Malawi Legal Framework

This section outlines the Policies and their corresponding Acts which are relevant to this project, and shall be complied with throughout project implementation. This Environmental and Social Management Plan (ESMP) has been developed in accordance with the national and international legislation as described in sections 3.1 and 3.3, respectively.

The Constitution of the Republic of Malawi (2017) is supreme over any legal policy or Act in Malawi. Sections 13 (d) and 13 (f) of the Constitution require that the State manages the environment responsibly and provide adequate resources to the education sectors respectively. The Constitution provides a framework for the integration of environmental and social consideration into any development programs. The constitution provides a legal framework for non-discrimination in Article 19-27, ensuring equality and freedom from discrimination based on race, gender, colour, tribe, or place of origin. It also protects human rights and freedoms, including the right to life, liberty, and security of person, and access to education, healthcare, and justice. The Constitution is implicated in this project in that that Ministry of Education through MTC, LTC, the World Bank, local communities and concerned and relevant stakeholders have a responsibility of ensuring that development programs and projects are undertaken in an environmentally and socially responsible manner, justifying the preparation of this ESMP for the project. Table 3-1 are the key national legislative requirements that are relevant to the proposed projects.

Table 3-1 key national legislative requirements that are relevant to the proposed projects.

Legislation	Description	Relevance to project Activities
National Environmental Policy (2004)	The policy provides strategies for environmental and social planning, environmental and social impact assessment, environmental and social audits, and	Project activities will integrate environmental and social management and protection

Legislation	Description	Relevance to project Activities
	environmental and social monitoring, among others. On ESIAs, the objective is to regularly review and administer the guidelines for ESIAs, audits, monitoring, and evaluation so that adverse environmental and social impacts can be eliminated or mitigated, and environmental and social benefits enhanced	during project planning and implementation.
Environment Management Act (2017)	The Act enacted outlines the ESIA process to be followed in Malawi and requires that all project developers in both the public and private sectors comply with the process. The proposed sub-projects are small in nature and do not fall under the list of prescribed projects as such ESMP was developed for mitigating potential impacts	The proposed construction project at Livingstonia and Mzuzu Technical College has prepared this Environmental and Social Management Plan which identifies project risks and has put in place mitigation measures as per the requirements of the Act.
Forestry Act (1997)	The objectives of the Forestry Act include the protection of trees and resources in forest reserves, the conservation and enhancement of biodiversity, and the protection and management of trees on customary land. Additionally, the Act aims to promote the sustainable utilization of timber and other forest products while safeguarding fragile areas such as riverbanks and water catchment areas. This legislation is crucial for maintaining the ecological balance and ensuring the sustainable use of forest resources.	The Forestry Act addresses the management of indigenous forests on customary land, private land, forest The proposed construction projects at Livingstonia and Mzuzu Technical College is largely modified as they are located on existing school campuses. There is no land take required from forest reserves, protected forest areas, or plantations. Any removal of trees, however, will be conducted in line with the Forestry Act.
The Water Resources Act (2013)	The Act governs the management and conservation of water resources in Malawi, regulating the control, conservation, apportionment, and use of water. It prohibits diverting, damming, storing, extracting, or using public water without compliance. The Act defines water pollution as any activity that changes	The activities of the construction project at Livingstonia and Mzuzu Technical College will require water and have the potential to pollute the water resources surrounding the Project

Legislation	Description	Relevance to project Activities
	the water's properties, making it less fit for use or hazardous to public health, safety, animals, or plant	Area. All water extraction and discharges will be conducted in accordance with the Water Resources Act and its implementing regulations.
National Water Policy (2005)	Section 1.3 of the National Water Policy explains that the policy provides an enabling framework for integrated water resources management in Malawi. Section 3.4.9 stresses that Pollution control of water resources shall adopt the 'Polluter–Pays' principle to ensure water user's responsibility. Section 5 points out that environmental degradation has negatively affected surface and groundwater quality, among other factors. Section 5.2.2 - Ensuring and promoting proper management and disposal of wastes	The project activities have the potential to negatively affect the water resources of the rivers in the project area. It is therefore recommended that the implementation of the project's activities should minimize pollution of the public water, promoting public health and hygiene and environmental sustainability.
Land Act (2016)	The Land Act (2016) makes provisions for various matters relating to customary, private, and public land, and enumerates the power of the Minister in respect to such land. The act vests all land in the Republic in perpetuity. The act defines public land as "all land which is occupied, used, or acquired by the Government, customary land, and any other land, not being private land. Private land is defined as "all land which is owned, held or occupied under a freehold title, or a leasehold title, or a Certificate of Claim or which is registered as private land under the Registered Land Act.	Livingstonia and Mzuzu Technical College is on public land that belong to the colleges. In addition, the proposed construction activities will be developed on this public land.
Physical Planning Act (2016)	This Act provides for physical planning and orderly land development in urban and rural areas, aiming to preserve and improve amenities. It grants district councils the authority to oversee physical planning developments and mandates developers to obtain development permissions as specified in Sections 44 and 45. Section 46 (1) (a) outlines that development permission applications can be made to a local	The implication of this Act is that the proposed project will have to ensure that the plans are approved by Rumphi and Mmbelwa District Councils before commencing construction activities.

Legislation	Description	Relevance to project Activities
	government authority or the Commissioner, depending on the jurisdiction.	
The Occupation Safety Health and Welfare Act (1997)	The Act regulates employment conditions for safety, health, and welfare in workplaces in Malawi. It mandates workplace registration, inspection of plant and machinery, and accident prevention. Part II requires workplaces to be registered with the director maintaining a register. Part III outlines employer duties, including providing safe work systems, risk-free handling of substances, and adequate employee training and supervision.	In accordance this act, the proposed construction project at Livingstonia and Mzuzu Technical College will ensure that the contractor develops and enforces a Health and Safety Plan, and that workers are provided with appropriate PPE to ensure the workers are comfortable and safe from occupational health and safety hazards. Working conditions on site will be monitored to ensure compliance.
The Employment Act (2000)	The Employment Act (2000) prohibits forced labour and discrimination based on race, colour, sex, language, religion, political or other opinion, nationality, ethnic or social origin, disability, property, birth, marital or other status or family responsibilities. It requires equal pay and establishes remedies for infringement of fundamental rights. It also sets limits on child labour and regulates contracts, working hours, weekly rest and leave, wages, and discipline and dismissal.	For the proposed construction project at Livingstonia and Mzuzu Technical College employment will be following the Employment Act.
National Equalization of Opportunities for Persons with Disabilities Policy (2006)	The Policy promotes the rights of people with disabilities and integrates them to enable them to play a full and participatory role in society. Section 2, subsections 2.3 and 2.4.8 of the policy state that people with disabilities are most affected by poor infrastructure, such as buildings not designed to accommodate or meet their special needs. Similarly, Subsection 2.45 of the policy states that people with disabilities have restricted employment opportunities, mainly due to discrimination, inadequate education, job experience, and confidence.	The policy on the proposed project implies that the contractor will be required to provide job opportunities to people with disabilities to ensure that they are also economically empowered.

Legislation	Description	Relevance to project Activities
Disability Act (2013)	This act is a significant step towards ensuring equal opportunities and rights for persons with disabilities. Promoting policies and legislation that aim to equalize opportunities, protect rights, and fully integrate persons with disabilities into all aspects of life recognizes their inherent dignity and well-being. Sections 9 and 13 of the acts are particularly commendable, as they prohibit discrimination in accessing premises, provision of services, and employment opportunities based on disability.	The project will not tolerate any form of discrimination against persons with disabilities and will promote equal employment opportunities for persons with disabilities by implementing LMP and Code of Conduct
Malawi Bureau of Standards	The Malawi Bureau of Standards (MBS) is responsible for developing and enforcing national standards through Technical Committees that represent various sectors, including environmental protection and pollution control. The Bureau is also working on its own emissions standards. Key standards relevant to the project include 13.020.10, which pertains to environmental management and adopts the ISO14000 series; MS 173:2005, which sets tolerance limits for noise pollution; and MS 214:2013, which specifies standards for drinking water	All Project-related activities will be conducted in compliance with the above standards.
Gender Equality Act, 2013	The Act in Chapter 25:06 promotes gender equality and equal integration, influences empowerment, dignity, and opportunities for men and women in all functions of society, prohibits and provides redress for sex discrimination, harmful practices, and sexual harassment, provides for public awareness on the promotion of gender equality and connected matters. Section 6(1) of the Act states that a person who commits an act of harassment if he or she engages in any form of unwanted verbal, non-verbal, or physical conduct of a sexual nature in the circumstances would have anticipated that the other person would be offended, humiliated or intimidated, and (2) a person who sexually harasses another in terms of the preceding subsection is liable to a fine and imprisonment specified under subsection (2).	The proposed construction project at Livingstonia and Mzuzu Technical College will ensure the principles set in this Act are included in all its activities and has developed a GBV & Sexual Harassment Prevention Plan. This plan will promote equal employment opportunities and providing a conducive environment without sexual harassment and any other types of gender discrimination.

Legislation	Description	Relevance to project Activities
HIV and AIDS (Prevention and Management) Act, 2018	The policy aims to prevent HIV infections, reduce vulnerability, improve treatment and support for those living with HIV/AIDS, and mitigate its socio-economic impact. Chapter 7 addresses HIV/AIDS in the workplace, highlighting issues like absenteeism, low productivity, and discrimination.	The SAVE project has put in place mitigation measures that are in line with the Act. The local artisans to be engaged in the construction works and the communities around the schools will constantly be sensitized on HIV and AIDS during the construction period.
Child Care, Protection and Justice Act (2010)	The Act in Part II, division 6 emphasizes the protection of children from undesirable practices. The undesirable practices are outlined in sections 79 and 80. Section 79 of the Act protects any child from child trafficking. Section 80 protects a child from harmful cultural practices.	The SAVE project has put in place mitigation measures that prevent child labour and has developed a Child Safety Management Plan that is in line with the Act.
Education Act (2013)	The Act makes provisions for the establishment, organization, governance, control, regulation and financing of schools and colleges. Part II, Section 5 talks about promotion of education where goals of education in Malawi are stipulated. Among the goals is to promote equality of education opportunities for all Malawians by identifying and removing barriers to achievements. Development of learners' knowledge, understanding and skills needed for Malawians to compete successfully in the modern and over changing world is also being emphasised.	The proposed construction project at Livingstionia and Mzuzu Technical College will assist in removing the barriers by increasing intake and providing better learning experience at the college.
Public Health Corona Virus Disease of 2019 (COVID-19) (Prevention, Containment and Management) Rules (2020)	Public Health rules mandate both employers and employees to implement general preventive measures, such as self-quarantine for at-risk individuals, covering the mouth and nose when coughing or sneezing, avoiding touching the face, eating thoroughly cooked food, and avoiding handshakes and close contact. Employers must form a team to implement these guidelines and disseminate them to all employees. Employees must cooperate and report non-compliance.	The Ministry of Labour will inspect workplaces for adherence. The developer of the two proposed projects must ensure COVID-19 guidelines are implemented and followed by both employers and employees.

Legislation	Description	Relevance to project Activities
Marriage, Divorce and Family Relations Act (2015)	An Act to make provision for marriage, divorce, and family relations between spouses and between unmarried couples, their welfare and maintenance, and that of their children, and for connected matters. The Act recognises a child to be those aged 18 and below, and section 14 states that two persons of the opposite sex who are both not below the age of eighteen years, and are of sound mind, may enter marriage with each other.	The proposed construction project at Livingstonia and Mzuzu Technical College will, as practicable, implement measures to ensure community dynamics are not impacted and that issues regarding Gender-Based Violence are not exacerbated because of Project activities.
Penal Code, Chapter 7:01	Section 138 (1) of the Penal Code punishes the defilement of girls under sixteen years of age (punishable with life imprisonment). Sexual abuse and exploitation of children is a common practice in construction in sites	The ESMP has articulated how project will guard against the perpetuation of the crime by project workers.

3.2 National Environmental and Social Assessment and Permitting

Before the commencement of any development project, the developer requires several permits and licenses, including those facilitating environmental management, such as Environmental Approval. The required permits are presented in Table 3-2. This approval is acquired from MEPA, which ensures that the project has undergone environmental impact assessment and planning and is in compliance with all relevant legal requirements. This Environmental approval gives permit to the project developer permission to proceed with the project while addressing environmental concerns throughout project implementation.

In Malawi, the ESIA review and approval process is regulated by the Environmental Management Act of 2017 and the subsequent Environmental Impact Assessment Regulations of 1997. For this project, the process started with a screening exercise aimed at identifying potential environmental and social impacts of the project. A team of different stakeholders were involved in screening exercises, and both MTC and LTC independently prepared the Environmental Assessment Checklists, which were later submitted to MEPA for review. After the review, MEPA recommended that there was a need for further assessment and development of ESMP for the proposed projects at both Technical Colleges.

Examples of some application forms of different licenses and permits required for the project are attached in **Appendix 16.**

Table 3-2: Environmental Licenses and Permits Required in Malawi

SN	REGULATIONS/ STANDARDS/ APPROVALS	DESCRIPTION	REFERENCE	ISSUING INSTITUTION	APPLICANT
1.	ESMP Approval Letter	The Environmental approval letter is issued after the ESMP submission and approval	Environmental Management Act, 2017	Malawi Environment Protection Authority (MEPA)	Developer
2.	Workplace Registration Certificate	Every workplace is required to be registered and must commit to abide by all of the country's labour laws.	Occupational Safety, Health and Welfare Act (1997)	Ministry of Labour in both districts	Contractor
3.	Development Planning Permission	Approval of designs of the project.	Physical Planning Act (2016)	Rumphi District and Mzuzu City Councils and Planning Committees	Developer
4.	Water Abstraction Permit	Section 39 (1) of the Water Resources Act prohibits the abstraction and use of water unless authorised to do so. The contractor for this project is likely to abstract water from the Manchewe Stream in LTC and the Lunyangwa River in Mzuzu Technical.	Water Resources Act (2013)	Water Resources Board	Contractor
5.	Waste Collection, Storage and Transportation	Licence required for storage and transport of waste	EMA (2017)	MEPA	Contractor

SN	REGULATIONS/ STANDARDS/ APPROVALS	DESCRIPTION	REFERENCE	ISSUING INSTITUTION	APPLICANT
6.	Water Connection Permit	This is a permit issued by a local water board that allows individuals or companies to get connected to the water mains.	Water Works Act (1995)	Northern Region Water Board (NRWB)	Developer
7.	Power Connection Contract	This is a contract agreement between the developer and Electricity Supply Corporation of Malawi (ESCOM) for connection of the buildings to electricity mains.	Electricity (Amendment) Act (2016)	ESCOM	Developer
8.	Fuel storage	License required for storage of fuel	Liquid Fuels and Gas (production and supply) Act	MERA	Contractor
9.	Sand Mining	A licence is required for sand extraction	Mines and minerals Act	M'mbelwa District Council /MCC and Rumphi District Council	Contractor
10.	Waste Disposal	Permit required for disposal of waste	Local Government Act	M'mbelwa District Council /MCC and Rumphi	Contractor

3.3 World Bank Standards and Key Gaps with the National Framework

The Government of Malawi is facing some challenges in improving the education sector. The low level of enrolment rate in the country's institutions of higher learning, particularly for the

disadvantaged group of people, inadequate infrastructure, shortage of qualified teaching laboratory, inadequate financial management, insufficient training and professional development opportunities and others contribute to poor quality education in Malawi. To combat these gaps, the World Bank, through the Ministry of Education, Labour and Youth, provides initiatives that focus on improving access to quality education, strengthening institutional frameworks, and promoting inclusive and equitable education in the country. The project will follow the World Bank Environmental and Social Standards (ESSs), the World Bank Group Environmental, Health, and Safety Guidelines and the World Bank Environmental, Social Risks Summary (ESRS), Occupational Health and Safety (OHS), Community Health and Safety, EHS Guidelines for Construction Materials Extraction and EHS Guidelines for Hazardous Materials Management have also been applied in this ESMP. Table 3-2 lists the applicable World Bank's ESS. The ESRS categorises environmental and social risks as follows: High Risk (HR), Substantial Risk (SR), Moderate Risk (MR) and Low Risk (LR). The categorisation is based on potential impacts on ecosystems, human health, scale of harm, likelihood of accidents, displacement, labour rights, community health, stakeholder engagement and effectiveness of mitigation measures. The Environmental & Social Risk Category for this project is **Moderate Risk (MR)** because the risks and impacts can be mitigated. Five of the ten World Bank's ESSs apply to the proposed construction works at MTC and LTC as outlined below. Some gaps exist in the national framework and these have been addressed in Table 3-3.

Table 3-3: Relevant World Bank ESS and Key Gaps with the National Framework

Environmental & Social Standards	Main requirements and conducted activities to meet them
ESS 1 - Assessment and Management of Environmental and Social Risks and Impacts	ESS1 sets out the Client's 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, to achieve environmental and social outcomes consistent with the Environmental and Social Standards (ESSs). The objective of the standard is to identify, assess, evaluate, and manage environmental and social risks and impacts in a manner consistent with the ESF. Adopt differentiated measures so that adverse impacts do not fall disproportionately on the

Environmental & Social Standards	Main requirements and conducted activities to meet them
	disadvantaged or vulnerable, and they are not disadvantaged in sharing development benefits and opportunities. *The proposed construction project at Livingstonia and Mzuzu Technical Colleges has identified E&S risks and impacts based on consultations with primary stakeholders including communities. This ESMP has also been prepared in line with the standard and taken into consideration key requirements provided in the Environmental and Social Management Framework for the SAVE Project. This ESMP also contains plans including, Labour Management Plan, Waste Management Plan which include Electronic waste, Health and Safety Plan, Traffic Management Plan and others which provide structured approaches to addressing specific environmental and social issues during the proposed project implementation.*
ESS 2 – Labour and Working Conditions	ESS2 recognizes the importance of employment creation and income generation in the pursuit of poverty reduction and inclusive economic growth. Borrowers 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. ESS2 applies to project workers, including fulltime, part-time, temporary, seasonal, and migrant workers. *The construction project at Livingstonia and Mzuzu Technical College shall use the Labour Management Plan for the SAVE Project that guides implementation of its activities and this will apply to this sub-project. This ESMP has also identified impacts related to labour and working conditions and their mitigation measures are also provided. In addition, this ESMP has included LMP, OHS and GRM which are essential tools for safeguarding labour rights, improving working conditions, and ensuring the*

Environmental & Social Standards	Main requirements and conducted activities to meet them
	overall success of this project through a fair and responsible approach to workforce management
ESS 3 – Recourse and Efficiency, Pollution Prevention and Management	ESS3 Promote the sustainable use of resources, including energy, water, and raw materials. Avoid or minimise adverse impacts on human health and the environment caused by pollution from project activities. Avoid or minimise project-related emissions of short and long-lived climate pollutants. Avoid or minimise generation of hazardous and non-hazardous waste. Minimise and manage the risks and impacts associated with pesticide use. Requires technically and financially feasible measures to improve efficient consumption of energy, water, and raw materials, and introduces specific requirements for water efficiency where a project has high water demand. *The construction project at Livingstonia and Mzuzu Technical College will ensure green designs for the project that will enforce use of environmentally friendly construction methods that will use cement blocks but also promote efficient energy and water usage and management during construction. The proposed project will promote waste segregation at source to enable recycling and reuse and proper and safe disposal of non-recyclable and hazardous waste. Monitor and minimise water and energy usage through regular audits, implement dust suppression measures, scheduling noisy operations during daytime to control noise pollution.*
ESS 4 – Community Health and Safety	ESS4 addresses the health, safety, and security risks and impacts on project-affected communities and the corresponding responsibility of Borrowers to avoid or minimize such risks and impacts, with particular attention to people who, because of their circumstances, may be vulnerable. *The construction works under the SAVE project will take place in institutions where there will be learners and hence the need for*

Environmental & Social Standards	Main requirements and conducted activities to meet them
	special protection from possible accidents. The project has ensured that the ESMP documents have provided mitigation measures to ensure community safety. This ESMP has included a Traffic Management Plan and Emergency Preparedness and Response Plan to protect the safety of the community and risks to human life, property and the environment.
ESS 5 - Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	ESS 5 addresses project-related land acquisition and restrictions on land use which can have adverse impacts on communities and persons. For example, resettlement is considered involuntary when affected persons or communities do not have the right to refuse land acquisition or restrictions on land use that result in displacement. *However, in this project, the construction in two institutions will be implemented on institutions' land hence there will be no need for resettlement consequently no compensation*.
ESS6 - Biodiversity Conservation and Sustainable Management of Living Natural Resources	It addresses the protection and conservation of biodiversity, maintains ecosystem services, and sustainably manages living natural resources throughout the project lifecycle. *The two project sites in Livingstonia and Mzuzu Technical Colleges lie on the bare land; hence, it will not trigger the ESS 6 habitats, especially those that are critical, natural, or legally protected, however the two institutions will monitor the protection of vegetation at the project site and the surroundings*
ESS 8 - Cultural Heritage	These standard addresses physical cultural resources, which are defined as movable or immovable objects, sites, structures that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be in urban or rural settings and may be above or below the ground.

Environmental & Social Standards	Main requirements and conducted activities to meet them
	The contractor will employ the Chance find procedure if they come across archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance
ESS 10 – Stakeholder Engagement and Information Disclosure	This ESS recognizes the importance of open and transparent engagement between the borrower and project stakeholders as an essential element of good international practice. Effective stakeholder engagement can improve the environmental and social sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and implementation. *The College Management Committees (CMC) will play a major role in linking the construction sub-projects with the community. This ESMP also has a Grievance Redress Mechanism that is to be used during execution of the project and this GRM is in line with provisions of the SAVE project Stakeholder Engagement Plan (SEP).*

CHAPTER 4: ENVIRONMENTAL AND SOCIAL SETTING OF THE PROJECT SITE

The information presented in this chapter is relevant to decisions about the project's location, design, operations as well as environmental and social management. Maps, figures, and tables are included in this chapter for better illustration of various environmental and social components of the project sites. The baseline data collection tools include, literature review of the secondary data from published reports, journals, and public consultations. The baseline information contained in this chapter will be used to in the design process of the project site to minimize its impact on the geology, soil and topography of the area; to ensure that the infrastructures are constructed properly, cost effective, in line with community wishes and in a manner of most suitable to the hydrological environmental and to allow for minimum disturbance of the flora and fauna community.

4.1 Biophysical Environment

This section presents the baseline conditions existing at and around the project sites.

4.1.1 Physical Conditions

4.1.1.1 Location and Size

Rumphi is one of the districts in Malawi found in northern region. It is bordered by Chitipa district in the North, Mzimba in the South, Karonga in the North East, Nkhata Bay in the South East and forms an international border with Zambia in the West. The district is approximately 70km from Mzuzu, the northern region's commercial city and 435km from Lilongwe, the Capital City of Malawi. It is located at a latitude of 10° and a longitude of 34°.The total area of the district is 6,640km^2 with a land area of about 4,769km^2, making about 4.0% of the total area of Malawi (118,484km^2).

Mzuzu City which is in Mzimba District, is the third-largest city in Malawi after Lilongwe and Blantyre and the largest city in the Northern Region. It serves as the administrative and commercial hub of northern Malawi. It has a population estimate of 221,000 according to 2018 Census. Its size range between 48 km² (urban core) and 181 km² (administrative area). The city lies approximately 1,250 m (4,101 ft) above sea level, giving it a cooler, temperate climate.

4.1.1.2 Climate (Temperature and Rainfall patterns)

The climate variability of the Livingstonia area in Rumphi district is divided into two distinct seasons, as referenced from the Rumphi District Socio-Economic Profile of 2017 – 2022. The rainy season lasts from November to April, and the dry season spans from May to October.

Furthermore, the dry period is divided into the cool dry period from May to July and the hot dry period from August to October. While The climate of Mzuzu is characterised by sub-tropical conditions typical of high-altitude regions, with distinct wet and dry seasons. The city experiences high rainfall, elevated humidity, and warm temperatures during the rainy season, which spans from November to mid-April, while the dry season lasts from May to mid-November, marked by minimal cloud cover and high sunshine hours.

The temperature of Rumphi district is greatly influenced by the topographic set up of the area and normally decreases with the altitude. The temperature in plateau and escarpments areas, like Phoka-Livingstonia, ranges from 11°C and 24°C as minimum and maximum temperatures respectively. While in lakeshore areas, the temperature ranges from 18°C to 36°C. The lowest temperature being experienced in June and July while the highest temperature occurs in October and November. As the case of temperatures in Rumphi district, the rainfall distribution is also influenced by the topographic set up of the area and proximity to Lake Malawi. The high-altitude areas in and around Nyika and Vipya plateaus receive highest rainfall ranging from 1,500mm to 2,000mm, while rain-shadow areas of Bolero and Boma receive lowest rainfall. On the other hand, the escarpment areas like Livingstonia, Mphombe and Chombe receive highest rainfall than on the low plateaus within same range of 2,000mm to 2,500mm, similarly to Lakeshore areas

Mzuzu City, located in northern Malawi at an elevation of approximately 1,250 meters, experiences a subtropical highland climate characterized by mild temperatures and distinct wet and dry seasons. Average daytime temperatures range from 19°C to 27°C throughout the year, with the coolest months being June and July (lows around 7–9°C) and the warmest months being September and October. The city receives significant rainfall between November and April, with annual precipitation ranging from 1,200 to 2,000 mm, peaking in February. Its cooler climate compared to most Malawian cities supports agriculture (especially coffee and dairy) and lowers the risk of climate-sensitive diseases such as malaria.

4.1.1.3 Geology, Topography, Soils and Water Resources

The physical observation for both soils and geology were conducted to understand the baseline conditions: Soil types, texture, geological formations, rock types, geological structures and possible minerals that are available in the project sites. GIS and remote sensing technology was applied to achieve mapping of the baseline conditions.

4.1.1.4 Geology

The geology of Rumphi district and most parts of northern region of Malawi is belonging to

post-Palaeozoic intrusions which are believed to be of Mesozoic geological formation age with few areas having a set of Premian-Triassic (Karoo) geological formation where geology of Livingstonia belongs. The Livingstonia area is largely comprised of dolerite dykes, diorites, pyroxenites, nepheline syenite and Kimberlitic breccias in the Livingstonia coalfield.

Mzuzu's geology is dominated by ancient metamorphic basement rocks intruded by granites and pegmatites, underlying urban hills and upland areas. Valleys and low-lying zones are filled with alluvial sediments. The city's position at the edge of the Malawi Rift means fault-bounded basins and escarpments shape both the landscape and hydrology. This geological setting influences land use, water resources, infrastructure development, and geohazard vulnerability

4.1.1.5 Topography

The district is predominantly hilly with few valleys. Some of the notable landforms in the district include; the Phoka-Livingstonia escarpments which is 1400m above the see level, the Nyika plateau which is a mountainous high plateau ranging from 1200m to 2400m above the sea level and the Mphompha – Uzumara hills which are also forming part of Zambia's Viphya escarpments ranging from 1000m to 2000m above the sea level. There are also in-between valleys like the Henga valley, Nkhamanga and Hewe plains. The Lakeshore area which is also characterized by narrow strip of flat land ranging from 1km to 20km wide between Mlowe to Chitimba. On the southern part of the Lakeshore plain, there is steeper escarpment as well.

Mzuzu City's topography is defined by high-altitude rolling hills, steep escarpments, and river-cut valleys, all shaped by its position on the Viphya Plateau and near the East African Rift. Elevation ranges from 1,200 to 1,400 meters above sea level, highest point found toward the eastern and southern edges, particularly around the Kaning'ina Forest Reserve, which rises further toward the Viphya Highlands. Lowest areas lie along river valleys, such as the Lunyangwa River basin, which cuts through the city and drains eastward. This diverse terrain supports rich biodiversity and scenic landscapes but also poses planning and resilience challenges for urban development, especially concerning erosion, drainage, and infrastructure stability.

4.1.1.6 Soils

A wide variety of soils have been developed in Rumphi district varying from area to area due to different types of sediments and rocks present in the district. Some of the soils found in Rumphi district are; Latosols soils, Calcimorphic soils, Hydromorphic soils and Lithosols and Regosols soils. The dominant soil type in Livingstonia area is Lithosols soils formed from

sedimentary rocks, mud-slit, sandstone and siltstone. Making the soils very deep, well drained, brownish in colour with course-fine grained (Sand-clay loam soil).

Mzuzu City has a mix of ferrallitic, latosolic, alluvial, and loamy soils shaped by its geology and highland climate. While these soils support diverse land uses, they require careful management due to acidity, erosion risks, and moderate fertility. Sustainable land use and soil conservation strategies are vital to maintain productivity and resilience in both rural and urban parts of the city.

4.1.2 Biological environment

Biological characteristics analysed in this report include flora and fauna.

4.1.2.1 Flora in Rumphi and Mzuzu City

Rumphi District in northern Malawi hosts diverse flora across its ecological zones, including miombo woodlands, montane grasslands, riparian systems, and cultivated areas. The miombo woodlands are dominated by tree species such as *Brachystegia boehmii, Brachystegia utilis, Julbernardia globiflora*, and *Isoberlinia angolensis*, with an understorey of grasses like Hyparrhenia and Andropogon. In the high-altitude Nyika Plateau, montane forests feature species such as *Podocarpus milanjianus, Syzygium guineense*, and Myrsine africana, while grasslands support *Festuca* and *Themeda* species, along with rare and endemic plants including over 200 species of orchids and proteas. Riparian and wetland vegetation, found along rivers and in the Vwaza Marsh, includes *Phoenix reclinata* (wild date palm), *Typha spp*., and *Cyperus spp.* Common indigenous trees and shrubs throughout the district include *Uapaca kirkiana, Parinari curatellifolia*, *Strychnos spinosa, Combretum spp., Terminalia spp.,* and *Ficus spp.* Additionally, exotic and agroforestry species such as *Eucalyptus spp., Pinus patula, Pinus kesiya, Grevillea robusta,* and *Gmelina arborea* are planted in plantations and farmlands. On the project site, there is no vegetation.

The natural vegetation of Mzuzu City is dominated by Miombo woodlands and has two large Forest Reserves at Lunyangwa and Kaning'ina. Due to human settlement major parts of the city are now built-up areas or cultivated land and dry grassland. Jacaranda-lined streets are typical in the inner-city area along Orton Chirwa Avenue (Mzuzu Urban Profile, 2013-2018). Other tree species found in Mzuzu City include; Jacaranda (*Jacaranda mimosifolia*), M'bawa (*Khaya nyasica*), Spathodia (*Spathodea campanulate).* Some common trees in the communities around the Project site are in the genera Brachystegia (Msasa), Combretum (*Bush Willows*) and Acacia (Mthethe), making up to 70% of the canopycover, particularly *Brachystegia manga*

(Blue-Leaved Brachystegia), Brachystegia bussei (Smooth bark Brachystegia), *Julbernardia globiflora* (Mnondo), *Acacia polyacantha* (Mnthethe), *Terminalia stenostachya* (Rosette Cluster Leaf), and *Dichrostachys cinerea*. (Sicklebush). Common fruit trees in the project area include: *Mangifera indica* (Mango), *Psidium guajava* (Guava) and *Citrus limon* (Lemon). However, there are no trees on the project site.

4.1.2.2 Fauna in Rumphi and Mzuzu City

Rumphi District in northern Malawi hosts a rich diversity of fauna due to its varied ecosystems, including Nyika National Park and Vwaza Marsh Wildlife Reserve. The area supports over 90 mammal species such as roan antelope, eland, zebra, leopards, hyenas, baboons, and vervet monkeys. Birdlife is exceptionally diverse, with over 400 species including Denham's bustard, wattled crane, blue swallow, and numerous wetland and forest birds. Reptiles like the Nile crocodile, African rock python, and monitor lizards are common, alongside amphibians such as frogs and toads. Aquatic systems support fish species like tilapia and catfish, while invertebrates include butterflies, beetles, bees, and freshwater crabs. Despite its ecological richness, the district faces threats from poaching, habitat loss, and climate change, highlighting the importance of continued conservation efforts and sustainable community engagement. Around the project site, there domestic animals only.

The Consultant used direct visual observation, and indirect evidence such as interviews with local inhabitants to identify fauna species in the communities around the Project area in Mzuzu. Fauna species mentioned in the communities around the project area are none of the species in the five taxonomic groups is classified as threatened by both local and IUCN Red-list, and none are endemic to the project area. The communities of interest are in the peri-urban areas, as such no traces of scat and prints for wild animals were observed except for the domesticated animals. However, this does not rule out the presence of some of the fauna species mentioned by the local inhabitants. The local community pointed out that Nkhututu (Tilapia rendalli) are not very common as they are mostly pond-raised.

4.2 Socio-Economic Environment

4.2.1 Population

Rumphi has a population of 229,161 people, 112,652 being males and 116,509 females. The total fertility rate is 4.2 children per woman which is above national fertility rate of 4.14 percent and the Rumphi population is expected to double by 50% by the year 2050 (2018 Population and Housing Census). Hence, the need for greater efforts in family planning education to

reduce the total fertility rate whilst at the same time increasing the contraceptive prevalence rate for the trend to be reversed. The reverse is essential because high population will mean more social amenities needed for the growing population. These social amenities include schools, accessible water, health facilities etc.

Mzuzu Technical College is located within Mzimba district in the city of Mzuzu, therefore in addition to Mzimba Socio Economic Profile, Mzuzu Urban Profile will be used for secondary data.With regard to demography, according to Population Projections carried out in 2018 by national statistical office, the district population of Mzimba was 940,184 which consists of 484,317females and 455,867 males (NSO, 2018). The report indicates that much of the population is said to reside in Mzuzu city 221,272 which consists of 112,424 females and 108,848 males with annual population growth rate for Mzimba District +2.6% and in Mzuzu city +5.4% per annum. The rapid population growth in Mzuzu City pushes a demand for different skills required for the betterment of one's life and development. These skills include welding, fabrication and plumbing, motor vehicle mechanics etc. Mzuzu Technical College which is in Mzuzu City offers some of these skills. The coming in of the SAVE Project will complement courses offered at the Mzuzu Technical College.

4.2.2 Tribes

The main ethnic groups in Rumphi district are Tumbuka, Chewa and Ngoni respectively. The Tumbuka comprises 86%, Chewa 4.9%, Ngonis 2.4%, Lomwe 1.7% and Yao 1.2%.

Mzuzu city is composed of the following tribes; Tumbuka, Chewa, Tonga, Swahili and Nkhonde. The Tumbuka are the most prevalent ethnic group, making up 51.71% of the city's population. The Chewa are the largest minority group, comprising 13.51%. Other significant ethnic groups include the Ngoni, Tonga, Nkhonde, Lambya, Yao, Lomwe, Sukwa, Sena, Mang'anja, and Nyanja.Despite the existence of many ethic tribes, English is official language of Malawi in all four regions. Issues of tribes, language, and religion are important because they relate to how certain things are done in a particular community or area.

4.2.3 Language and religion

The majority of the population in Rumphi district speaks Tumbuka which represents 95%, followed by Chichewa 4%. The remaining 1% speak other languages such as Lambia, Nkhonde, Tonga among others. English is the official language especially in a business transaction.

According to the 2018 population census, the majority of the population is Christian, comprising 98%. Muslims and other religions comprise 2% of the population. The information

on religion is important for planning purposes, to know when the majority of workers might be off duty.

The culture of the city is a mixture of other cultures of the northern region. The Tumbuka is a widely spoken language in Mzuzu city, but other languages such as Chichewa, Tonga, Swahili, and Ngonde are also spoken. Mzuzu is a religious city dominated by Christianity religion which accounts for 92% followed by Islam comprises of 4%. Traditionally, almost all people in the district belong to African traditional religion without regular worship and are non-congregational.

4.2.4 Culture and tradition.

The dominant group in both Rumphi and Mzuzu City, the Tumbuka people, are patrilineal with extended families. Marriages are arranged by tradition and the groom is obliged to pay dowry to the bride's side. However, in Mzuzu City, the culture is also influenced by immigrants from the central and Southern region. Culture is also exposed through traditional dances, and the common ones include Vimbuza, Mganda, Mchoma and Mtungo.

4.2.5 Health

Rumphi District Council, through District Health Office, aligns its health delivery services to national guiding documents including Malawi Growth and Development Strategy III, Health Sector Strategic Plan II (HSSPII) of 2017-2022 and National Health Policy 2016(NHP). Rumphi district has two referral hospitals; Rumphi District Hospital and David Gordon Memorial Hospital. Rumphi Hospital also serves as a referral facility for six health facilities in Mzimba North. Acute Respiratory Infection is the leading cause of morbidity in Rumphi. Before the Malaria Rapid Diagnosis Tests (MRDT), any fever whether due to malaria or ARI condition was regarded as malaria.

In Mzuzu City there is one major public referral hospital, which is Mzuzu Central Hospital, one public health centre, Nkhorongo Health Centre and several private hospitals and clinics operated by private individuals and humanitarian organisations, which include St. John of God, Mzuzu Community Hospital, Mzuzu University Clinic, Zolozolo Health Centre, Mzuzu Police Health Centre and Mzuzu Prison. Traditional birth attendants also provide health services. Health facilities in the city are not evenly distributed and are not enough to serve the population of Mzuzu, with the most affected being the residents of the informal settlements. Malaria and upper respiratory infections are the most common diseases at 23.4 percent and 22.6 percent respectively. Family planning services are provided in most health facilities.

4.2.6 HIV and AIDs

In Rumphi district, 6.6% of sexually active population are HIV positive and 2.4% for pregnant women. The main key driver of HIV and AIDS epidemic in the district is having multiple sexual partners influenced by cultural practices. For example, wife inheritance after a brother's death, polygamy and a sister of a married woman serving as a wife to the sister's husband. Sex in exchange of fish and money along the lake shore areas of the district also contribute to spread of HIV and AIDs. the same way some women get fish and money in exchange of sex, the same way some women will be dating men working on the project to get money. Therefore there is need for sensitization meetings prior throughout the project period

HIV and AIDS prevalence in Mzuzu is at 13.8 per cent. In general, more males go for voluntary counselling and testing (VCT) at 55.3 per cent against 43.6 percent of females. HIV and AIDS prevalence for men becomes higher as the level of education increases ranging from 9 percent for those with no education to 13 percent for those with secondary and tertiary education. HIV and AIDS prevalence also increases with increasing economic status of the households at 15 percent for the wealthier and 4 percent for the poorest. HIV infection is higher among married people than single people. The number of HIV and AIDS orphans in the city is rising at y7, 583 orphans below eighteen.

4.2.7 Education

An educated and skilled population accelerates economic growth and enhances the attainment of Sustainable Development Goals. The enrolment in Rumphi district rose in the years of 2013 and 2014 due to the enrolment of underage learners mostly in Community-Based Childcare Centres. Enrolment slowed down between 2015 and 2016 (303) and 2016 and 2017 (606). The slowdown was attributed to improved efforts in restraining underage children from enrolling into primary school and a drop in transfers due to the declining tobacco industry.

The passing rate in the district has generally been improving from 56.2% in 2013 to 69.8% in 2017. Generally, boys have a higher passing rate than girls as a result of adverse circumstances both within and outside the school. Therefore, it is important to pay particular attention to factors that impede girls' attainment in education. The district has registered a decrease in dropout rate from 4.2% in 2013 to 2.3% in 2017 as a result of interventions by the Ministry of Education, Science and Technology in combating harmful cultural practices, opening more schools to reduce distances to schools, and reducing early marriages and teenage pregnancies.

The education in the district is also affected by a lack of classroom blocks. There is an acute shortage of classrooms in the district, and there is a need to construct more to accommodate all

learners. The case of Livingstonia Technical College is not so much different from this; during the time of consultative meetings, it was revealed that some learners who were selected to study at Livingstonia Technical College dropped out of college because of the unfavourable environment at the College, the unfavourable conditions included dilapidated hostels, lack of proper dining hall etc.

In Mzuzu City, public primary schools are free, and the current teacher-to-pupil ratio is 1:50. There are 43 primary schools with a total of 375 classrooms, comprising 183 qualified male teachers and 617 qualified female teachers. Data for private school enrolment is not available, and the quality of education has not been assessed in most private schools. According to the National Statistical Office (2008), the total enrolment in public primary schools was 39. Approximately 49.6 per cent of registered students in Mzuzu are males, and the remaining 50.4 per cent are females. The city has one public university, namely Mzuzu University, one public technical college, Mzuzu Technical College and several private tertiary and technical institutions.

2.2.8 Employment

There are 15,060 employed individuals in Rumphi district that translates to 17%, far below the Northern region participation rate of 72% (2018 Malawi Population and Housing Census Report) leaving the unemployed at 83%. The coming in of the SAVE project is expected to reduce this number as it is an expectation of the community members to get employed, especially where unskilled labour is required. The employed individuals are in the age ranges of 15-70 years of age. The district has all types of labour available almost every employee in the public and private formal sector is a skilled and there are more unskilled workers in the private informal sector. The minority of people working in Rumph District are employed in Agriculture sector through subsistence farming. On other hand, those in the formal sector and others in civil service or service industry are employed as regular workers and casual laborers. Efforts are made by the district Council to eliminate child labour through conducting intensive child labour inspections, making by-laws and conducting awareness campaigns on causes and effects of child labour. Therefore, it is expected that no underage person will be employed during the construction project at Livingstonia Technical College.

Mzuzu's labour market is overwhelmingly informal, with nearly two-thirds of its workforce engaged in small-scale trade, agricultural activities, and self-employment. Formal jobs offered by institutions like Mzuzu Central Hospital, Mzuzu University, NGOs, and municipal services is estimated at 37%. The agricultural and mining-based economy, particularly tobacco and food processing, employs a quarter of local residents. Youth face constrained formal employment

options, with only about one in ten graduates finding work in the formal sector, and many joining the informal economy.

4.2.9 Industry and Commerce

Trade is a tool for sustainable socio-economic development and poverty reduction. The commercial enterprise in Rumphi district comprises largely of wholesale and retail shops. The industrial enterprise is basically of small scale such as food processing, brewing and value addition among others. Mostly it is women who are in small scale food processing business and the construction project will offer them a business opportunity – selling food items to men working on the project site. Some enterprises are registered cooperatives under the Ministry of Industry and Trade and are being run by the members who are shareholders. In total, there are 46 registered cooperatives in Rumphi district.

Small and medium enterprises play a great role in the economic development of the country, and can also help create jobs for many people and contribute significantly in the revenue base of government through taxes. Apart from providing goods and services to locals, small and medium enterprises provide a source of revenue for Rumphi district council through taxes, license fees, ground rates and other modes of taxes.

Mzuzu's economy blends traditional sectors like coffee and dairy with emerging industrial activity and strong trade linkages. Among 268 registered businesses, key categories include general trading, food retail, agriculture-related trading, IT services, and hospitality; ranging from hotels to market stalls.The development of the Dunduzu industrial park under Malawi's Special Economic Zones initiative is set to further stimulate local agro-industry and manufacturing. Meanwhile, the city's logistics infrastructure, growing IT service sector, and diverse SME base provide a dynamic commercial environment, with opportunities to drive job creation, value-adding enterprises, and regional economic integration.

4.3 Sanitation

A number of sanitary facilities are available, ranging from toilets, bathrooms, urinals, taps, boreholes, shallow wells. In terms of pit latrines, 65.3% of the households have a hand washing facility, while 9.7% use improved types such as san-plats. The sanitation data further shows that 59.14% of the households have bathing facilities, 61.85% of the households have kitchens and while 44.1% have dish racks. There was a substantial increase in sanitation coverage in years 2015 to 2016 due to interventions targeting community sanitation such as the accelerated sanitation and hygiene practices project by the Global Sanitation Fund and The SRWSIHL Project by the Malawi Government. Though this has been the case, sanitation coverage remains

at 66.6% because one traditional authority (T A Chikulamayembe has not been covered with the initiatives and general backsliding in some specific areas due to disasters which affected some sanitation facilities (DoDMA, 2017).

Sanitation in Mzuzu is primarily facilitated through individual septic systems and pit latrines, with the majority of the population using basic facilities. Some institution like Mzuzu university manage waste water through wastewater stabilization pond located within the city designed to treat wastewater for up to 5,000 people. Liquid waste management in Mzuzu is dominated by a private provider, Mr Clean Malawi, which operates vacuum tankers (3,000–18,000 L) to empty pit latrines and septic tanks, mostly servicing public institutions and middle/upper-income households. Low-income areas receive minimal service, especially in the rainy season, due to poor access and high operational costs. A few small informal operators serve peri-urban residents, often at higher prices and without safe disposal practices

4.4 Waste management

Common waste collection and disposal methods in the district are buckets, pails, rubbish pits, disposal on roadsides and throwing anywhere (though not environmentally friendly).

In Mzuzu, solid waste generation is approximately 171 kg per person annually. The management of this waste is handled by the Mzuzu City Council (MCC) and several private entities. While MCC operates limited resources like a skip carrier and a single waste compactor, it primarily focuses on commercial and institutional areas, leaving many residential zones underserved.

The predominant method of waste disposal is via the Msilo Waste Management Facility located in Dunduzu, roughly 15 km from the city centre. This facility spans 5 hectares and is designed to accommodate the city's waste for approximately 50 years. Despite the structured waste management efforts, a significant portion of the community resorts to using rubbish pits, with 86% of households disposing of waste this way**.**

4.4.1 E-waste Management

Livingstonia and Mzuzu Technical Colleges generate various forms of electronic waste, primarily old computers, laptops, networking equipment, and office electronics. While the total quantities are relatively small (under 1000 kg annually), the disposal process includes refurbishment, recycling, auctioning, or specific donor protocols for donated items. The Institution collaborates with Local Councils to ensure proper e-waste disposal, adhering to environmental health standards

4.5 Water Supply

4.5.1 Access to safe water

Water access is defined as the availability of potable 36litres of water per capita per day at a distance of not more than 500m (National Water Policy 2008). At the national level, water access is at 84% according to the Rural Water Investment Plan of 2012-2020, whilst according to the Rumphi District Water Mapping results of 2014, water accessibility is at 70%. This means that the Rumphi district has not done well on the accessibility of portable water. During consultative meetings, it was established that the water supply at Livingstonia is a problem despite the fact that the district has adequate water sources such as Lake Malawi and other rivers like Manchewe stream and Rukuru river. Currently, there is gravity-fed system which taps water from Nyika Hills and supplies water to Livingstonia Mission, including the Technical. It was recommended that the Northern Region Water Board start supplying water at Livingstonia to ease the problem of water shortage. Functionality of water points is different across the district, with the overall functionality for boreholes at 55.85%, taps at 71.93% and protected wells at 48.90%. Overall, functionality is at 58.89% rendering a non-functionality rate of 41.11% which is above the national average of 30%. (Rural Water Sector Investment Plan, 2014). This calls for an effort to be made to lower the non-functionality rate in Rumphi District.

Water provision in Mzuzu City primarily comes through the NRWB, which supplies piped water to about 82% of households. A study from 2024 under the Peri-Urban Hygiene and Sanitation project indicated that while the majority of homes in high-density areas rely on NRWB's piped water, around 14% depend on water kiosks for their daily needs. The primary source of this water is the Lunyangwa Dam, which collects raw water from the Lunyangwa River. The availability of water in the surrounding community is diverse, with boreholes, water vendors, protected wells, and external piped water being the primary sources. Access challenges include distance to water sources, water quality issues, shortages, and high costs, affecting mainly those not connected to the piped system. According to a recent household survey, expensive water charges and poor water quality are the most significant concerns

4.6 Power and Energy

4.6.1 Power

Rumphi district does not have its own power generating plants. The power come from the National grid whose electrical power is generated at Nkula. The closest substation to Rumphi is Bwengu Sub Station which is in Mzimba District but under the charge of Rumphi ESCOM Office. The only available substation is Vungu Vungu, located at Livingstonia which receives

power from Wovwe Hydro power station but does not supply Rumphi with power, as the hydro power requires major rehabilitation works to bring it to full operation. The total available electrical power in the district is 3.5 Megawatts, but current consumption is at 2 Megawatts.

In Mzuzu City, about 42% of households have access to electricity, and 88% of these households are within 100 meters of an electricity connection (Mzuzu City Council, 2023). Despite these figures, Malawi's overall electricity access remains low, with only 14.2% of the national population connected to the grid as of 2021 (World Bank, 2023). The limited national grid coverage and supply reliability issues have significantly impacted both urban and rural communities, necessitating a push for alternative and decentralized energy solutions.

4.6,2 Energy

The majority of the population in Rumphi district use firewood as source of energy for cooking which is currently at 87.6%, followed by charcoal, which is at 10.9%. Majority of the population use dry cells in torches as a source of lighting (80.1%), firewood at 2.4%, candles at 1.9%, paraffin 0.8%. Use of solar electricity has increased over the past five years 2013-2018 from 5% to 10%.

The most common energy sources in Mzuzu are electricity, charcoal, firewood and petroleum. A few commercial and residential premises rely on solar power or energy. The major energy supplier in Mzuzu is the Electricity Supply Corporation of Malawi. The most common sources of energy for lighting in Mzuzu city are, paraffin, 47 percent, electricity at 40 percent, candles at 11 percent and firewood and other sources at 0.01 percent, charcoal at 24 percent, electricity at 10 percent and gas paraffin, straws and other sources at 1 percent. Majority of the households are still using charcoal as a source of cooking and there is need for an alternative source, for example gas.

4.7 Transport and Communication

4.7.1 Transport

Rumphi district is served by land and sea transport. The major means of transport in the district is land transport which includes use of roads. Sea transport is mainly used by communities living along the lakeshore area especially where access by road is not possible. There are 100 registered vehicles doing business between Rumphi and Mzuzu which is 68km away. These vehicles include minibuses, taxis, pickups, lorries and big trucks.

The transport industry in Mzuzu is growing at a fast rate due to the high demand for public transport services in the city. The most common means of transport include bicycles, taxis and minibuses. The rapid growth in the transport industry has led to increased traffic congestion

and a high increase in road accidents. There is need to come up with effective traffic rules and regulations and equally enforce them in order to properly manage the traffic situation. Bicycles are currently banned from the city Centre due to the very high number of cyclists causing congestion. Pedestrian walkways and bicycle paths need to be provided. In addition, there is no integrated transportation network linking, different parts of the city, which makes travelling difficult. There is however potential for developing private public partnerships in providing public transport in the city.

4.7.2 Communication

Rumphi has seven post offices and seven post agencies offering postal services in the district. Postal services include sending and receiving money, express mail services, parcel posting and receiving, commission services such as transferring people, sending bulk mails, transporting and electronic money order transfers. Telephone services are operated and managed by the Malawi Telecommunications Limited. Cellular networks are provided by Telecom Networks Malawi (TNM) and Airtel Malawi. The network coverage is good in most of the areas except areas around Tcharo and Mphompha where transmitters are required to strengthen the signal. Radio and television network is covered by MBC 1 and 2 (FM), Times Radio RM, ZBS FM, Voice of Livingstonia FM and 95% of the population in Rumphi listen to either of these radio stations. Most of the print media is found at the urban centre of the district with very little in the rural areas.

Mzuzu City hosts multiple post offices and private courier agencies that provide a range of postal services including express mail, parcel handling, money transfer, and electronic money order services. These services support both personal and business communication needs. Telephone services are primarily managed by Malawi Telecommunications Limited (MTL), offering fixed-line services, though usage is declining. Cellular networks in the city are provided by Telekom Networks Malawi (TNM) and Airtel Malawi, both of which offer 2G to 4G services. Network coverage is generally strong across the city, with reliable service in both residential and commercial areas. The city is well-served by a variety of radio and television stations. These include MBC Radio 1 and 2, Times Radio, Zodiak Broadcasting Station (ZBS), and Voice of Livingstonia, which are widely listened to by residents. Community radio stations like Mzuzu University Radio also play a key role in information dissemination. Print media such as The Nation, Daily Times, and Malawi News are available mainly in the city's commercial zones, with limited circulation in peri-urban areas. Access to digital platforms and social media is growing, especially among youth and professionals, contributing to an increasingly connected urban population.

4.8 Security

Rumphi District maintains a developing but under-resourced security structure, supported by the central Rumphi Police Station and several rural police units. The district has established new police posts to strengthen coverage in remote areas, including a newly opened Livingstonia Police Unit near Livingstonia Technical College in TA Kachulu. This unit currently has a small team of officers, with expansion plans underway, including the construction of staff housing. Another key point is the Chitimba Police Roadblock, which operates along the M1 road near Livingstonia and helps enforce road safety and deter criminal activity along the escarpment. The Rumphi Central Police Station, located in the district headquarters, remains the main law enforcement hub for the region, supporting investigations and coordinating rural security efforts.

Security challenges in Rumphi include theft (especially of public materials), understaffing, and emerging social issues such as mob justice and suicides. However, active community policing forums (CPFs), traditional authority engagement, and infrastructure investments are strengthening local security systems. With ongoing recruitment and infrastructure support, security around Livingstonia and the wider district is expected to improve steadily.

Mzuzu Technical has established a security system to safeguard its community and assets. At the core of this is a security Office, which coordinates all security-related activities across the campus. This office collaborates closely with the Mzuzu Police Station which is the nearest formal law enforcement facility to Mzuzu Technical College. It serves as the main police hub for the city and the broader northern region, overseeing law and order for areas within Mzuzu city including Chibavi, Chiputula, Luwinga, and surrounding neighbourhoods. The institution does not manage security in-house but instead outsources these services to specialised security firms that work in conjunction with the technical college and the police.

CHAPTER 5: POTENTIAL ENVIRONMENTAL AND SOCIAL RISK IMPACTS AND STANDARD MITIGATION MEASURES

The project implementation cycle comprises four main phases: mobilisation, construction, finishing, and demobilisation. During the mobilisation phase, the contractor will prepare essential project documentation, establish temporary facilities, hire workers, secure necessary permits, and source materials. The construction phase covers activities such as laying foundations, erecting structural frameworks, building walls and partitions, installing roofs, and setting up of a 2-storey building with 2 ICT laboratories, classrooms and staff offices at Livingstonia Technical College, and a 2-storey building with plumbing and welding workshops, classrooms, staff offices and an ICT laboratory at Mzuzu Technical College. The finishing phase includes tasks like painting, tiling, and fitting fixtures and equipment. Finally, the demobilisation phase involves dismantling temporary setups and clearing construction waste from the site.

This Chapter describes the possible environmental and social impacts and the proposed mitigation measures from the environmental and social analysis and evaluation. The construction works and operation of the proposed construction works at the two technical colleges will generate different impacts in the project area and beyond, especially where raw

materials will be sourced. The environmental and social setting of the site where the construction activities will take place at each college are proposed as described in section 2.3.

5.1 Impact Identification

Identifying impacts involves considering positive and negative effects resulting from the interaction between project-related activities and valued environmental components. These valued environmental components encompass physical, biological, social, economic, or cultural aspects. A screening form provided in Annex 2 was used to identify the impacts.

Table 5-1 illustrates the potential interactions between the project-related activities and the valued environmental components identified through the screening form for each project implementation phase.

Table 5-1: Potential Interactions of the Project with VECs.

Valued Environmental Components	Project Phase			
	Construction Sub - structure	***Construction of super-structure***	***Finishing***	***Operation***
Air Quality	x	x	x	x
Noise & Vibration	x	x	x	x
Water Resources	x	x	x	-
Aquatic Ecosystem	-	-	-	-
Wetlands	-	-	-	-
Terrestrial Biodiversity	x	-	-	-
Public Health & Safety	x	x	x	X
Labour & Economic Conditions	x	x	x	X
Service Infrastructure & Utilities	x	x	x	X
Transportation & Access	x	x	x	X
Land Use & Resources	x	x	x	-
Soil and Land Capability	x	x	x	-
Visual Impact	x	x	x	-
Waste Management	x	x	x	X
E waste	-	-	x	X

Social Dynamics and Community Well-being	x	x	x	-
Climate Change and Greenhouse Gas Emissions	x	x	x	X
Hazardous Materials and Contamination Risks	x	x	x	X
Cultural & Historical Heritage	-	-	-	-
Incidence of flood	x	x	x	x
Key				
No Substantial Interaction	-			
Possible Interaction	X			

5.2 Significance Ranking of the Impacts

The key objective of implementing this methodology was to identify any potential environmental issues and associated impacts likely to arise from the proposed project, and to propose a significance ranking. Issues or aspects were reviewed and ranked against a series of significance criteria to identify and record interactions between activities and aspects, and resources and receptors to provide a detailed discussion of impacts. A standard risk assessment methodology was used for the ranking of the identified environmental impacts pre-and post-mitigation (i.e. residual impact). The significance of environmental aspects is determined and ranked by considering the criteria presented in **Error! Reference source not found.**.

Table 5-2: Impact Assessment Criteria and Scoring System

CRITERIA	SCORE 1	SCORE 2	SCORE 3	SCORE 4	SCORE 5
Impact Magnitude (M) The degree of alteration of the affected environmental receptor	Very low: No impact on processes	Low: Slight impact on processes	Medium: Processes continue but in a modified way	High: Processes temporarily cease	Very High: Permanent cessation of processes

Impact Extent (E) The geographical extent of the impact on a given environmental receptor	Site: Site only	Local: Inside activity area	Regional: Outside activity area	National: National scope or level	International: Across borders or boundaries
Impact Reversibility (R) The ability of the environmental receptor to rehabilitate or restore after the activity has caused environmental change	Reversible: Recovery without rehabilitation		Recoverable: Recovery with rehabilitation		Irreversible: Not possible despite action
Impact Duration (D) The length of permanence of the impact on the environmental receptor	Immediate: On impact	Short term: 0-5 years	Medium term: 5-15 years	Long term: Project life	Permanent: Indefinite
Probability of Occurrence (P) The likelihood of an impact occurring in the absence of	Improbable	Low Probability	Probable	Highly Probability	Definite

pertinent environmental management measures or mitigation					
Significance (S) is determined by combining the above criteria in the following formula:	$[S=(E+D+R+M)\times P]$ *Significance= (Extent+ Duration+ Reversibility+ Magnitude)× Probability*				
IMPACT SIGNIFICANCE RATING					
Total Score	**4 to 15**	**16 to 30**	**31 to 60**	**61 to 80**	**81 to 100**
Environmental Significance Rating (Negative (-))	**Very low**	**Low**	**Moderate**	**High**	**Very High**
Environmental Significance Rating (Positive (+))	**Very low**	**Low**	**Moderate**	**High**	**Very High**

5.3 Impact Significance Rating for the Identified Impacts

Error! Reference source not found. present the assessed potential environmental and social impacts and their significance rankings. The impact significance without mitigation measures is assessed with the design controls in place. The residual impact is what remains following the application of mitigation and management measures and is thus the final level of impact associated with the development. Residual impacts also serve as the focus of management and monitoring activities during project implementation to verify that actual impacts are the same as those predicted in this Report.

Table 5-3: Environmental Impacts and their ratings

Aspect	Impact	Nature	Significance (Before Mitigation)	Significance (After Mitigation)
Planning and Design Phase impacts and their ratings				
Social	Creation of employment opportunities (architects, engineers, and other experts)	Positive	**Moderate**	**High (+)**
	Improved project compliance to national environmental and social legislations	Positive	**High (+)**	**High (+)**
Construction phase impacts and their ratings				
Air Quality	Dust and particulate emissions	Negative	**Moderate**	**Very Low**

Aspect	Impact	Nature	Significance (Before Mitigation)	Significance (After Mitigation)
	Increase in combustion emissions	Negative	**Moderate**	**Very Low**
Noise	Increase in construction noise levels	Negative	**Moderate**	**Low**
Surface Water	Increased risk of water contamination	Negative	**Moderate**	**Low**
Groundwater	Decrease in groundwater quantity due to borehole water use	Negative	**Low**	**Very Low**
	Decrease in groundwater quality due to leachate/spills from fuel storage areas.	Negative	**Low**	**Very Low**
Waste	Poor waste disposal practices	Negative	**Moderate**	**Low**
Soils and Land Capability	Soil erosion	Negative	**Moderate**	**Low**
	Soil contamination	Negative	**Low**	**Very Low**
Terrestrial Biodiversity	Direct loss and disturbance of natural habitat and associated flora SCC	Negative	**Low**	**Very Low**
	Loss and fragmentation of faunal habitat	Negative	**Moderate**	**Very Low**
Traffic	Traffic Disruptions due to construction vehicles leading to traffic congestion	Negative	**Moderate**	**Very Low**
	Deterioration of the surrounding road network due to an increase of traffic around the site	Negative	**Low**	**Very Low**

Aspect	Impact	Nature	Significance (Before Mitigation)	Significance (After Mitigation)
	Impact on school children due to proximity of the site to the primary school	Negative	**High**	**Moderate**
Social	Availability of market for construction materials and services, and other trades	Positive	**Moderate**	**High (+)**
	Creation of employment opportunities	Positive	**Moderate**	**High (+)**
	Artisanal skill development	Positive	**Moderate**	**High (+)**
	Disruption on provision of education services	Negative	**Moderate**	**Low**
	Community, health and safety risk	Negative	**Moderate**	**Low**
	Increased risk to diseases, STIs and HIV and AIDS	Negative	**High**	**Moderate**
	Conflicts over use of local water resources	Negative	**Moderate**	**Low**
	Health and safety of site personnel	Negative	**High**	**Low**
	Learners at risk of pregnancies, sexual harassment, & SEA	Negative	**Moderate**	**Low**
	GBV and sexual exploitation and abuse	Negative	**Moderate**	**Low**
	Increased Incidences of child labour	Negative	**High**	**Low**

Aspect	Impact	Nature	Significance (Before Mitigation)	Significance (After Mitigation)
Operation phase impacts and their ratings				
Waste	Poor waste and E waste disposal practices	Negative	**Moderate**	**Low**
Visual	Improved outlook of the institutions	Positive	**High**	**Very High (+)**
Social	Promotion of teaching and training of labour market relevant skills	Positive	**High**	**Very High (+)**
	Increase in number of students enrolled especially females	Positive	**High**	**Very High (+)**
	Increased risk to diseases, STIs and HIV and AIDS	Negative	**Moderate**	**Low**
	Occupational health and safety of learners and staff	Negative	**Moderate**	**Low**
	Increased energy and water use	Negative	**Moderate**	**Very Low**

5.4 Description of Identified Impacts

This section outlines the project's construction phase's potential positive and negative environmental and social impacts. The construction phase is divided into specific activities to track their impacts: mobilisation, demolition, construction, finishing, and demobilisation. The impacts are organised according to the stages of the project life cycle.

5.4.1 Planning and Design Phase Positive Impacts

The activities in this phase will include planning and designing of the project works and activities. This will involve land surveying, preparation of technical drawings (architectural and structural), environmental and social assessment study, processing of applicable authorization and approvals from relevant authorities, and tendering of the works.

5.4.1.1 Creation of employment opportunities (architects, engineers, and other experts)

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. The impact is short term as it will last for a less than 180 days during the planning phase but will also involve at least twenty people. Hence the impact is of low significance.

5.4.1.2 Improved project compliance to national environmental and social legislations

The phase will involve preparing related environmental and social instruments that will be used for the project's lifespan. These documents include this ESMP and will also include architectural and engineering designs. The impact is expected to be of high significance as it will be used for the entirety of the project.

5.4.2 Construction phase positive impacts

5.4.2.1 Creation of local employment opportunities

The construction phase will provide employment to people in the Project including men, women, youth and the vulnerable from the surrounding communities. By employing the vulnerable during construction, this Project will be of vital importance not only to mitigate the adverse impacts related to the Project but also enhance employment inequalities. Some of the skill categories that

will be required by the Project will include surveying, plumbing, carpentry, bricklaying, steel fixing, plant operation, civil engineering and driving.

5.4.2.2 Availability of market for construction materials and services, and other trades

The construction phase of the Project will be executed by a building contractor registered by the National Construction Industry Council (NCIC). The Project will also be buying construction materials from the local market and will provide business for the local businesses. Despite this positive impact, the impact is going to be short-term as the construction phase will last six months.

5.4.2.3 Skill transfer

Employment of local people from within the Project's 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.

5.4.3 Anticipated Positive Impacts during Operation Phase

5.4.3.1 Enhanced Skills Development

The workshop will provide students with practical, hands-on solar photovoltaic installation training, equipping them with essential skills for the job market. Graduates will be more competitive in the labour market, increasing their employability and potential for higher income. The project can prioritise including women and disadvantaged groups in training program promoting gender equality and social inclusion.

5.4.3.2 Improved Educational Facilities

The construction of modern, well-equipped facilities will enhance the overall learning environment at two institutions. Students will benefit from access to state-of-the-art tools and equipment, improving the quality of their education.

5.4.3.3 Infrastructure Improvement

The workshop's construction will include improvements to existing infrastructure, such as access roads and utilities, which will benefit the wider community. Enhanced infrastructure will provide long-term benefits and support other development initiatives in the area.

5.4.3.4 Local Economic Development

The construction and operation of the hostel will generate employment opportunities for local communities, from construction workers to hostel staff. This boosts the local economy and provides skills development opportunities, contributing to sustainable economic growth.

5.4.4 Anticipated Negative Impacts during Construction Phase

5.4.4.1 Disruption and disturbance of the Provision of Education Services

Using classrooms for storage and the associated noise and dust from construction activities could significantly hinder the educational environment, affecting students' learning experiences and outcomes. The construction of these facilities will require space for storing materials at the college, potentially leading contractors to use classrooms or other rooms for storage. This would disrupt learners' ability to continue their daily lessons. Additionally, construction activities could disturb education services through noise and dust.

5.4.4.2 Increased Risks of GBV, SEA, and Defilement

The mobilisation of predominantly male workers could heighten the risk of GBV, SEA, and exploitation of female learners, particularly those from vulnerable backgrounds. Malawi has a high proportion of girls married by the age of 18. During construction, the contractor will mobilise several workers, most of whom will likely be male, due to the dominance of men in the construction industry in Malawi. The presence of these male workers could present challenges for female learners, especially those from nearby schools, as they come from vulnerable households facing poverty and food insecurity. These conditions make them prone to exploitation, including SEA, defilement, and child marriages, as marriage is often perceived as a quick escape from poverty. In addition, female workers on the construction site may face sexual harassment, discrimination, or exploitation from their colleagues or supervisors. A hostile work environment can lead to mental health issues, reduced job satisfaction, and decreased productivity among female workers.

5.4.4.3 Potential traffic Accidents to the Community

Given that the construction works will be done at an existing college, the construction activities are expected to exacerbate traffic congestion. Increased vehicular traffic from the construction materials and equipment transportation will further congest the construction site's access road. This congestion poses a higher risk of road accidents involving vehicles and pedestrians, including vulnerable primary school children.

5.4.4.4 Increased incidences of child labour

Poverty is the main reason children are forced to work. Child labour supply is directly linked to the need for children to provide supplemental income for their families or to support themselves.

The college has villages surrounding with households living below the poverty line. The children from these villages may be at risk of being used as cheap sources of construction labour. Strict enforcement of labour laws, regular monitoring, and community engagement will ensure this impact is low in significance.

5.4.4.5 Temporary Air Quality Deterioration

Significant dust and particulate matter emissions are anticipated during construction. Construction activities, including cement and aggregates, will elevate dust levels. Additionally, machinery and vehicles used during construction will emit gases and particulate matter, such as carbon dioxide, sulfur dioxide, nitrogen oxides, and other hydrocarbons. While it is unlikely that ambient air quality standards will be exceeded, these emissions can still adversely affect the students and the community.

5.4.4.6 Elevated Noise Levels and vibration from Machinery and Construction Activities

Construction machinery and equipment produce elevated noise levels and vibrations, impairing workers' hearing and disturbing the community. Noise generated by these activities can be heard over long distances, albeit typically for short durations. If noise levels exceed 65 dBA at a receptor or significantly surpass the ambient sound level by more than 15 dBA, they can increase annoyance levels and result in noise complaints.

5.4.4.7 Potential for Accidents and Injuries On-site Affecting Workers (workers' health and safety)

Construction workers will face various occupational hazards during the project. These hazards include operating large machinery and equipment, working at heights, using electrical tools, and handling hazardous and flammable chemicals. The construction site itself poses risks, such as slips, trips, and falls, which can lead to injuries.

5.4.4.8 Discriminatory Working Conditions

There is a significant risk of discriminatory working conditions. Unfair hiring practices may favour certain groups based on gender, age, or ethnicity. Workers might face unequal pay and benefits, with temporary labourers receiving lower compensation than permanent staff. On-site harassment and discrimination, particularly against female workers, can affect mental and physical well-being. Inclusivity issues may arise, such as a lack of support for diversity and accommodations for disabilities. Health and safety measures might also be inconsistently applied, putting certain

workers at greater risk. Implementing fair hiring, equal pay, anti-harassment policies, inclusivity programs, and comprehensive safety training can mitigate these risks.

5.4.4.9 Infectious Disease Impact

Interactions between workers and the communities and even amongst themselves can increase the likelihood of spreading STIs, HIV and AIDS, cholera and COVID-19. Therefore, it is important for the project to put measures in place to control the spread of disease in the workplace. Cholera is an acute enteric infection caused by ingesting the bacteria Vibrio cholera present in contaminated water or food. It is mainly linked to insufficient access to safe drinking water and inadequate sanitation. It is an extremely virulent disease that can cause severe acute watery diarrhoea, resulting in high morbidity and mortality. It can spread rapidly, depending on the frequency of exposure, the exposed population, and the setting.

5.4.4.10 Generation of Solid Wastes, Spills, and Effluent

Various construction activities are expected to generate many types and varying quantities of wastes that will include construction rubble, spoil from land clearing, packaging materials, vehicles and machine maintenance wastes, remains from form works, general mixed wastes (glass, wooden pallets, plastic, paper, metal scraps and cut-offs, fillings, food items, etc.), material residues, hazardous wastes (used oils, discarded fuels and paints, termite proofing material residues, discarded thinners and cleaning agents, etc.), and others. Spillages of chemicals, oils, paints, thinners, fuel, and other hazardous fluids, pastes or powders together with affected soils or surfaces should be regarded as hazardous waste. Effluents may include concrete spills, kitchen and bath wastewater, cleaning wastewater, and others.

5.4.4.11 Increase in Electricity Consumption

Electricity Supply Corporation of Malawi supplies electricity to the project area. The 2 institution uses electricity for lighting, power devices, and appliances in offices, classrooms, and hostels. Key activities contributing to this include electricity for lighting and power tools, further elevating energy demands. This increased demand for electricity will lead to high electricity bills that the college cannot maintain. There will be signed agreement on how the bills will be shared between the contractor and the institution during construction, including having a separate electricity meter for the contractor

5.4.4.12 Increase in Water Consumption

The main water source at LTC is portable water supplied by the gravity-fed water system, which was commissioned by the Livingstonia Mission. For MTC, the source of portable water is tap

water supplied by the Northern Region Water Board. However, construction works will result in a significant increase in water consumption, which the portable system may not support; furthermore, the project does not recommend the use of portable water in construction. This increase is necessary for various construction activities, including concrete mixing, which requires large amounts of water for the foundation, walls, and other structures. The anticipated increase in water demand will lead to elevated water bills, which the college may find unsustainable. To address this, a separate water meter will be installed for the contractor's domestic use. For construction purposes, contractors from the two institutions will source water directly from the Lunyangwa River in Mzuzu and the Manchewe Stream in Livingstonia Technical College.

5.4.4.13 Soil Erosion and Sedimentation due to earthworks and site clearing

Construction activities can lead to soil erosion through various processes that disturb the natural soil structure, vegetation cover, and water drainage systems. Here's how construction activities contribute to soil erosion. Land clearing involves the removal of vegetation such as trees, grasses and shrubs which loosens the soil and hence increase soils susceptibility to being eroded. Construction activities also expose the soils through excavation, grading and levelling activities hence the topsoils are easily eroded. The project will create impermeable surfaces like sidewalks and pavements reducing water infiltration into the soil leading to increased runoff hence exacerbating erosion of loose soils. Heavy machinery can result in compaction of the soil reducing water penetration into the soil. Eroded soils from the construction site may get washed into nearby water bodies and natural drainage systems causing sedimentation. Sedimentation may negatively impact aquatic life by clogging waterways and also reducing water quality.

5.4.4.14 Degradation of Vegetation and Habitat Loss impacting local flora and fauna

The project site is currently bare land with minimal or no vegetation, characterised by exposed soil and a generally flat or slightly sloped topography. Due to the absence of trees and ground cover, the area shows signs of vulnerability to soil erosion and offers limited habitat or food sources for wildlife. The lack of vegetation simplifies site preparation, reduces biodiversity impact, and facilitates access for construction activities. However, it also presents environmental challenges such as dust pollution and potential surface runoff. Proper erosion control measures and post-construction landscaping will be essential to restore ecological balance and prevent land degradation

5.4.4.15 Risk of Soil and Water Contamination due to improper handling and disposal of construction materials, such as oils, fuels, and solvents, could lead to soil and groundwater contamination.

The construction activities may lead to soil contamination through the release of hazardous substances or improper waste disposal practices. Leakage or spills associated with the storage and handling of construction materials, particularly hazardous substances like oils, fuels, paints, batteries, and solvents, can seep into the soil, reducing soil health through increased toxicity. Improper disposal or accidental spills of construction-related materials can result in

5.4.4.16 Traffic Disruptions due to the movement of construction vehicles could lead to traffic congestion

During construction, we should envisage traffic disruptions caused by increased vehicle movement within the vicinity of the site, road closures, and improper scheduling conflicts of delivery trucks that may block traffic. Traffic disruptions can lead to an increase in accidents because construction vehicles pose a higher risk to cyclists and pedestrians due to their size and limited manoeuvrability.

5.4.4.17 The risk of conflicts between the students, communities and contractor

Conflicts are inevitable in a project and can arise due to a variety of reasons, including miscommunication, resource constraints, differing priorities, or interpersonal issues. Understanding the types, causes, and strategies to manage these conflicts is crucial for maintaining project progress and achieving objectives; hence, the grievance redress mechanisms is vital in the project to handle such conflicts

5.4.5 Operation phase Negative Impacts

5.4.5.1 Health and safety risks due to fire hazards

Buildings are very prone to fire hazards because of different types of combustible materials and machines, which are used and installed, respectively. Electrical faults are by large the major culprit in fire accidents. The components of a fire are fuel (combustible substance), heat and oxygen. Unless all three are present fire will not occur. Fire can cause the effects that include loss of lives, serious injuries, and loss of properties etc.

5.4.5.2 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.

5.4.5.3 Increased risk to STIs, HIV and AIDS

It is anticipated that the increased intake at the college will attract more learners, staff and other businesspeople to the area. Interactions between these different groups within and between them would result in sexual encounters that can increase the likelihood of spreading HIV and AIDS.

5.4.5.4 Increased demand for power

There will be higher power consumption in the area than the current consumption level especially during occupation phase. The developments will connect to the existing power line, and this might strain the resource. However, the students will be encouraged to conserve as much energy as possible and also use energy conserving appliances. Energy conservation involves proper use of electrical appliances; lighting systems and other electrical gadgets used for different purposes.

5.4.5.5 Increased demand for water

Traditionally, modern buildings have high demands and usage of resources, mainly electricity and water. Water consumption is related to personal use and facility requirements for housekeeping, laundry, cooking, and grounds maintenance. The project will put measures water use efficiency, including conducting awareness campaigns for staff and students on water-saving practices, grey water recycling, leak detection and maintenance, installing low-flow taps, dual-flush toilets, and water-efficient showerheads.

5.4.5.6 Battery Disposal and Hazardous Material Risks

Since the workshop includes a battery room, improper handling or disposal of batteries (e.g., lead-acid batteries) poses risks of soil and water contamination from hazardous substances, which require specialized disposal protocols

5.4.5.7 Stormwater Runoff Risks

The addition of impervious surfaces (e.g., workshop roofs and paved areas) may alter local drainage patterns and lead to increased stormwater runoff. This can exacerbate erosion and sedimentation, particularly in the surrounding ravines, and potentially impact nearby Lake Malawi.

5.4.5.8 Risk of Fires or Accidents Electrical faults

Especially from the photovoltaic system, could pose a fire risk if not properly managed and maintained. Accidental fires could lead to damage to local flora, fauna, and infrastructure, requiring robust emergency response planning. To avoid fire and electrical faults this project will use qualified electricians, ensure only licensed professionals handle wiring and installations,

adhere to safety regulations like NEC (National Electrical Code) or local codes, conduct routine checks to identify and fix hazards early, Keep fire extinguishers nearby and ensure workers are trained in fire response and ensure all tools are in good condition and workers follow safety protocols.

5.4.5.9 E-waste generation and management

The project recognises that E-waste (electronic waste) management is a critical component of the ICT project to ensure safe, sustainable, and environmentally responsible disposal of obsolete or non-functional electronic equipment. The project will generate e-waste from devices such as computers, servers, printers, batteries, mobile phones, and networking equipment over time. Poor management of this waste can lead to environmental contamination through hazardous substances like lead, mercury, and cadmium, and pose health risks to humans. To address this, the project will develop and implement a structured E-Waste Management Plan.

5.5 Environmental and Social Management and Monitoring Plan

An Environmental and Social Management and Monitoring Plan has been developed to assist in mitigating and managing environmental impacts associated with the construction works. It is noteworthy that key factors and processes may change during the construction works, and considerable provisions have been made for the dynamism and flexibility of the ESMP. As such, the ESMP will be subject to a regular periodic review regime during project implementation. 6 forms the core of this ESMP for the construction phase of the proposed project respectively. In general, the table outlines the potential environmental and social risks associated with the project and details all the necessary mitigation measures, their financial costs, and the institutions responsible for their implementation

Table 5-4: Environmental and Social Risks and Mitigation Measures

SN.	POTENTIAL RISK	RECOMMENDED ENHANCEMENT/MITIGATION MEASURE ALIGNED WITH THE WORLD BANK EHS GUIDELINES AND GIIPS	PERFORMANCE INDICATOR	TARGET	MEANS OF VERIFICATION	RESPONSIBILITY FOR ENHANCEMENT/ MITIGATION	RESPONSIBILITY FOR MONITORING	TIMEFRAME & MONITORING FREQUENCY	MITIGATION COST (MWK)	MONITORING COST (MWK)
PLANNING AND DESIGN PHASE IMPACTS										
POSITIVE IMPACT										
1	Increased employment opportunities	Prioritize employment of eligible local consultants to provide services.	• Number of local consultants hired to provide goods and services.	100% local consultants	Records of contracts awarded to local consultants.	Livingstonia Technical College (LTC), Mzuzu Technical College (MTC) and Project Implementation Unit (PIU)	Rumphi District Council Labour Office and Mzimba District Council Labour Office	Once during the planning and designing phase	0	200,000
2	Improved project compliance to national environmental and social legislations	Solicit views of the public and stakeholders through consultations to ensure that their concerns are considered in the Project's documents.	Improved project compliance to national environmental and social legislations	8 meetings	Number of consultation meetings conducted	Livingstonia Technical College (LTC), Mzuzu Technical College (MTC) and Project Implementation Unit (PIU)	Rumphi District Council Labour Office and Mzimba District Council Labour Office	Throughout the planning and design phase	1,000 000	2,000,000
		Undertake community liaison meetings to notify the community of commencement date as well as inform them of the grievance mechanism and labour policy; and								
		Before commencing of construction works, obtain approvals and certificates from relevant authorities that will include the Malawi Environment	No/% of permits and approvals	100%	No/% of approvals	Livingstonia Technical College (LTC), Mzuzu Technical College (MTC) and Project Implementation Unit (PIU)	Rumphi District Council Labour Office and Mzimba District Council Labour Office	Throughout the planning and design phase	Inclusive	Inclusive

SN.	POTENTIAL RISK	RECOMMENDED ENHANCEMENT/MITIGATION MEASURE ALIGNED WITH THE WORLD BANK EHS GUIDELINES AND GIIPS	PERFORMANCE INDICATOR	TARGET	MEANS OF VERIFICATION	RESPONSIBILITY FOR ENHANCEMENT/ MITIGATION	RESPONSIBILITY FOR MONITORING	TIMEFRAME & MONITORING FREQUENCY	MITIGATION COST (MWK)	MONITORING COST (MWK)
		Protection Authority and Lilongwe District Council.								
NEGATIVE IMPACT										
3	Increased Anxiety amongst LTC and MTC Students & Staff Members about the negative impacts which the project activities will cause.	➢ Conduct a sensitisation campaign for the project, engaging LTC and MTC Students and Members of Staff before the commencement of the project. Provide clear information on project activities, risks, and mitigation measures through stakeholder meetings and accessible materials.	• Number of complaints received from students, staff members and local communities about the project.	Zero complaints from students, staff members and local communities.	Records of complaints received.	Livingstonia Technical College (LTC) and Mzuzu Technical College	Rumphi District Council, Mzimba District Council, Labour Office and Local Leaders	Once during the planning and designing phase	1nclusive	1,000,000
CONSTRUCTION PHASE IMPACTS										
POSITIVE IMPACTS										
4	Increased transfer of skills to local community members, including youths	➢ Employ more people from surrounding communities	• Number of local workers.	At least 20% of skilled labourers should come from surrounding area	Records of project workers (Skilled labourers)	Contractors	Rumphi District Council Labour Office, Mzimba District Council Labour Office and Local Leaders.	Twice a year throughout construction phase of the project	N/A	100,000

SN.	POTENTIAL RISK	RECOMMENDED ENHANCEMENT/MITIGATION MEASURE ALIGNED WITH THE WORLD BANK EHS GUIDELINES AND GIIPS	PERFORMANCE INDICATOR	TARGET	MEANS OF VERIFICATION	RESPONSIBILITY FOR ENHANCEMENT/ MITIGATION	RESPONSIBILITY FOR MONITORING	TIMEFRAME & MONITORING FREQUENCY	MITIGATION COST (MWK)	MONITORING COST (MWK)
4	Increased Job creation	➢ Employ more unskilled labourers from projects surrounding areas.	• Number of unskilled labourers employed from surrounding communities.	At least 95% of project unskilled labourers should come from project surrounding communities.	Records of project workers including unskilled labourers.	Contractors	Rumphi and Mzimba District Councils Labour Office, Livingstonia and Mzuzu Technical Colleges, and Local Leaders.	Twice in a year throughout construction phase	N/A	1,200,000
6	Increased local businesses income	➢ Priotise engagement of local suppliers to provide goods and services such as food items etc.	• Number of locally sourced goods and services.	At least 70% of locally available goods and services should come from project surrounding areas.	Records of locally sourced goods and services.	Contractors	Rumphi District Council, Mzimba District Council Labour Office, Local Leaders, LTC and MTC	Twice in a year throughout construction phase	N/A	200,000
NEGATIVE IMPACTS										
7	Increased accidents and injuries	➢ Train project workers on proper use of heavy equipment and machinery. ➢ Provide Personal Protective Equipment (PPEs) and ensure consistent use. ➢ Use of warning and informative signs at the construction	• Number of reported accidents and injuries from the project.	Zero number of reported accidents and injuries.	Records of accidents and injuries at the project site.	Contractors	Rumphi District Labour Office, Mzimba District Council Labour Office and Public Works Offices.	Quarterly throughout construction Phase of the project	2,300,000	100,000

SN.	POTENTIAL RISK	RECOMMENDED ENHANCEMENT/MITIGATION MEASURE ALIGNED WITH THE WORLD BANK EHS GUIDELINES AND GIIPS	PERFORMANCE INDICATOR	TARGET	MEANS OF VERIFICATION	RESPONSIBILITY FOR ENHANCEMENT/ MITIGATION	RESPONSIBILITY FOR MONITORING	TIMEFRAME & MONITORING FREQUENCY	MITIGATION COST (MWK)	MONITORING COST (MWK)
		site, and implement a robust site safety plan in line with the World Bank EHS Guidelines.								
8	Increased dust emission	➢ Observe speed limits ➢ Conduct regular application of water around project areas to suppress dust. ➢ Cover materials during transport to reduce fugitive emissions.	• Amount of water used to suppress dust around project area.	Zero complaints of air pollution from surrounding communities.	Records of water application at project sites to suppress dust.	Contractors	Rumphi District Council Environmental and Health Office, Local Leaders, Mzimba District Council, MTC and LTC.	Quarterly throughout construction phase	N/A	200,000
9	Increased waste products	➢ Dispose wastes at designated places. ➢ Provide rubbish bins and pits for solid wastes. ➢ Implement waste segregation at source; ➢ include a Waste Management Plan aligned with the EHS Guidelines.	• Availability of rubbish bins at project site and volume of rubbish disposed at dumping site from the projects.	Zero presence of rubbish at project sites	Records of wastes generated from the projects and wastes disposed at designated place.	Contractor	Rumphi District Council Environmental and Health Office, LTC, MTC and Mzimba District Council.	Twice in a year throughout construction phase	2,400,000	200,000

SN.	POTENTIAL RISK	RECOMMENDED ENHANCEMENT/MITIGATION MEASURE ALIGNED WITH THE WORLD BANK EHS GUIDELINES AND GIIPS	PERFORMANCE INDICATOR	TARGET	MEANS OF VERIFICATION	RESPONSIBILITY FOR ENHANCEMENT/ MITIGATION	RESPONSIBILITY FOR MONITORING	TIMEFRAME & MONITORING FREQUENCY	MITIGATION COST (MWK)	MONITORING COST (MWK)
10	Increased risk of Child Labour	➢ Ensure that the project has not employed any child. ➢ Abide to Child Labour Management Plan of the projects. ➢ verify age documentation at recruitment.	• Number of Children employed by the projects.	Zero number of children employed by the projects.	Records of all project workers including their ages both at LTC and MTC.	Contractors	Ministry of Labour, Rumphi District Council Labour and Social Welfare Offices, Mzimba District Council, Local Leaders, LTC and MTC Managements.	Quarterly throughout the construction phase	N/A	100,000
11	Increased noise pollution	➢ Provide all project workers with ear protection materials. ➢ Fit construction vehicles with silencers to reduce noise, and ➢ Conduct regular vehicle maintenance. ➢ Schedule noisy activities during day time; ➢ Monitor noise levels in compliance with EHS Guidelines.	• Notices issued to make the surrounding communities aware of the time of high-level noise from the project sites.	At least there should be no high level of noise beyond required standard.	Frequent inspection of level of noise records from the project activities.	Contractors	Local Leaders, MTC, LTC Rumphi District Council Public Works Office and Mzimba District Council.	Quarterly throughout construction phase	4,000,000	1000.000

SN.	POTENTIAL RISK	RECOMMENDED ENHANCEMENT/MITIGATION MEASURE ALIGNED WITH THE WORLD BANK EHS GUIDELINES AND GIIPS	PERFORMANCE INDICATOR	TARGET	MEANS OF VERIFICATION	RESPONSIBILITY FOR ENHANCEMENT/ MITIGATION	RESPONSIBILITY FOR MONITORING	TIMEFRAME & MONITORING FREQUENCY	MITIGATION COST (MWK)	MONITORING COST (MWK)
12	Increased risk in spread of STIs and HIV/AIDS	➢ Conduct community sensitization on prevention measures of STIs, HIV and AIDS. ➢ Place condoms in toilets	• Number of new HIV/AIDS cases reported. • Number of condoms distributed to the project workers monthly.	Zero new cases of HIV/AIDS among project workers and surrounding communities.	Monthly reports on how HIV and AIDS prevention measures are adhered to by the project workers and the surrounding communities.	Contractors	Local Leaders, Livingstonia Technical College, Mzuzu Technical College, Mzimba District Council and Rumphi District Council Health, and Social Welfare Offices.	Quarterly throughout construction phase	2,000,000	200,000
13	Reduced accommodation space for students during construction	➢ Workers should find accommodation away from student residences; coordinate with school management to avoid disruption.	• Availability of clear relocation plan for workers	away from students' accommodation	Report on the identification of workers accommodation.	Livingstonia Technical College (LTC) and Mzuzu Technical College	Ministry of Education, Rumphi District Council Education Office, and Labour Office, Mzimba District Council Education Office and Labour Office	Annually, throughout the construction phase	Inclusive	Inclusive
14	Loss of vegetation.	➢ Minimise loss of vegetation by avoiding unnecessary clearing of land ➢ Clear areas where infrastructure will be located and leave the natural vegetation and its	• Presence of vegetation around project are.	Well conserved vegetation around project area	Reports on biodiversity conservation	Contractors, Mzuzu Technical College, and Livingstonia Technical College	Rumphi District Council Forestry Department, Mzimba DESC and Local Leaders	Quarterly throughout construction project	2,300,000	100,000

SN.	POTENTIAL RISK	RECOMMENDED ENHANCEMENT/MITIGATION MEASURE ALIGNED WITH THE WORLD BANK EHS GUIDELINES AND GIIPS	PERFORMANCE INDICATOR	TARGET	MEANS OF VERIFICATION	RESPONSIBILITY FOR ENHANCEMENT/ MITIGATION	RESPONSIBILITY FOR MONITORING	TIMEFRAME & MONITORING FREQUENCY	MITIGATION COST (MWK)	MONITORING COST (MWK)
		associated fauna intact. ➢ Plant at least 10 trees to replace every tree cut. ➢ Align with national forestry regulations.								
15	Increased traffic density to Livingstonia and Mzuzu Technical Colleges	➢ Use warning and informative signs at the site, and controlling traffic along the roads leading to the project sites. ➢ Implement Traffic Management Plan (TMP). ➢ Provide detours and safe pedestrian crossings; ➢ Enforce speed limits; ➢ Coordinate with local authorities for traffic safety.	• Presence of warning and informative signs, and traffic controlling personnel at the project sites. • Presence of detours leading to the project sites.	zero complaints of traffic issues around project areas.	Reports on traffic management plan.	Contractors	Local Leaders, MTC, LTC, Rumphi District Council Public Works Office, and Mzimba DESC.	Monthly throughout construction phase	inclusive	100,000
16	Increased potential of labour rights violations e.g. unequal access	➢ Employ unskilled labourers from surrounding communities. ➢ Give women and men equal	• Number of women employed by the projects.	Zero cases of Labour Rights violations.	Records of Labour Rights violation cases at the project sites.	Contractors	Ministry of Labour, Rumphi and Mzimba District Councils Labour Office and Social Welfare	Quarterly throughout construction phase	N/A	200,000

SN.	POTENTIAL RISK	RECOMMENDED ENHANCEMENT/MITIGATION MEASURE ALIGNED WITH THE WORLD BANK EHS GUIDELINES AND GIIPS	PERFORMANCE INDICATOR	TARGET	MEANS OF VERIFICATION	RESPONSIBILITY FOR ENHANCEMENT/ MITIGATION	RESPONSIBILITY FOR MONITORING	TIMEFRAME & MONITORING FREQUENCY	MITIGATION COST (MWK)	MONITORING COST (MWK)
	to job opportunities	employment opportunities. ➢ Align with Labour Management Plan (LMP).	• Number of unskilled labourers employed.				Offices, LTC, MTC and Local Leaders.			
17	Risk of Gender-Based Violence (GBV) and Sexual Harassment	➢ Conduct GBV and Sexual Harassment sensitization at workplace, and ➢ Enforce strict adherence to GBV Management Plan ➢ Implement Codes of Conduct with contractor oversight.	• Number of cases of Gender-Based Violence and Sexual Harassment.	Zero cases of GBV and Sexual Harassment.	Records of Gender-Based Violence cases	Contractors	Ministry of Labour, Rumphi and Mzimba District Councils Labour and Social Welfare Offices, LTC, MTC and Local Leaders.	Monthly, throughout construction phase	500,000	200,000
18	Increased risk of theft	➢ Use of LTC and MTC Campuses security personnel to guard project materials and equipment in coordination with Livingstonia and Mzuzu Police Stations. ➢ Secure construction materials properly.	• Number of reported theft incidents.	Zero cases of theft at project site.	Reports on theft cases	Contractors, MTC and LTC	Rumphi and Mzimba District Councils and Local Leaders.	Quarterly, throughout construction phase	Inclusive	200,000
19	Increased school dropout & increased	➢ Sensitize surrounding schools on project risks;	• Number of early pregnancies and school dropout	Zero cases of school dropout and early	Reports on school dropouts and early pregnancies in	Local Leaders, LTC, MTC and Contractors	Rumphi and Mzimba District Councils Social Welfare	Twice in a year throughout	200,000	1000,000

SN.	POTENTIAL RISK	RECOMMENDED ENHANCEMENT/MITIGATION MEASURE ALIGNED WITH THE WORLD BANK EHS GUIDELINES AND GIIPS	PERFORMANCE INDICATOR	TARGET	MEANS OF VERIFICATION	RESPONSIBILITY FOR ENHANCEMENT/ MITIGATION	RESPONSIBILITY FOR MONITORING	TIMEFRAME & MONITORING FREQUENCY	MITIGATION COST (MWK)	MONITORING COST (MWK)
	pregnancies among young girls	engage with school management and local leaders; provide awareness campaigns.	cases in relation to project implementation at LTC and MTC.	pregnancies among girls in relation to project implementation.	relation to project implementation at the LTC and MTC.		Office and Education Office.	construction phase		
20	Increased risk of soil erosion	➢ Avoid clearing areas which will not be affected by the projects. ➢ Create stone pitching where soils have been excavated. ➢ Implement soil erosion control measures in line with EHS Guidelines.	• Absence of exposed soil surfaces around project areas.	Zero areas exposed to soil erosion.	Project sites inspection records.	Contractors	Rumphi and Mzimba District Councils Agriculture Office, Livingstonia Technical College and Mzuzu Technical College.	Quarterly, throughout construction phase	1,500,000	200,000
21	Increased soil contamination	➢ Use impermeable-surfaced vehicle service areas ➢ Service construction vehicles regularly to minimise fuel leakages ➢ implement spill prevention plans; train staff on spill response.	• Absence of contaminated soils	Zero sites contaminated soils	Project sites Inspection reports.	Contractors	Rumphi and Mzimba District Councils Agriculture Office, Livingstonia Technical College and Mzuzu Technical College.	Monthly, Construction phase,	200,000.00	100,000.00

SN.	POTENTIAL RISK	RECOMMENDED ENHANCEMENT/MITIGATION MEASURE ALIGNED WITH THE WORLD BANK EHS GUIDELINES AND GIIPS	PERFORMANCE INDICATOR	TARGET	MEANS OF VERIFICATION	RESPONSIBILITY FOR ENHANCEMENT/ MITIGATION	RESPONSIBILITY FOR MONITORING	TIMEFRAME & MONITORING FREQUENCY	MITIGATION COST (MWK)	MONITORING COST (MWK)
22	Disruption to College Operations and Student Learning	➢ Schedule noisy or disruptive activities during weekends or breaks; coordinate with college management for class timetables; provide advance notice of works; erect noise barriers where necessary.	• Number of complaints received from college management/students about noise or disruption	Zero complaints recorded	Contractor reports, noise monitoring reports, college feedback	Contractors	LTC and MTC Management, PIU, MoE	Weekly during the construction phase	Inclusive	Inclusive
	Wastewater Generation from Construction Activities	➢ Provide on-site sanitation facilities for workers; treat wastewater from equipment cleaning and batching areas before discharge; or collect for safe off-site disposal in compliance with EHS Guidelines.	• Number of wastewater incidents reported	Zero incidents of untreated wastewater discharge	Contractor logs, wastewater management records	Contractors	MEPA, PIU, MoE, local health authorities	Monthly throughout construction phase	Inclusive	Inclusive
	Hazardous Materials Handling and Storage	➢ Store fuels, lubricants, paints, and solvents in secure, contained areas; implement spill prevention and response plans; train staff on safe handling of hazardous materials; comply with EHS Guidelines on hazardous materials management.	• Number of hazardous material spills reported	Zero spills or incidents of hazardous materials	Contractor incident logs, staff training records, site inspection reports	Contractors	MEPA, PIU, MoE	Monthly throughout construction phase	Inclusive	Inclusive
23	Occupational health hazards	➢ Provide appropriate PPE, training, and ventilation; monitor	• Number of occupational	Zero reported incidents of	Contractor's safety records,	Contractors	PIU, MoE, District Health Office	Monthly throughout	Inclusive	Inclusive

SN.	POTENTIAL RISK	RECOMMENDED ENHANCEMENT/MITIGATION MEASURE ALIGNED WITH THE WORLD BANK EHS GUIDELINES AND GIIPS	PERFORMANCE INDICATOR	TARGET	MEANS OF VERIFICATION	RESPONSIBILITY FOR ENHANCEMENT/ MITIGATION	RESPONSIBILITY FOR MONITORING	TIMEFRAME & MONITORING FREQUENCY	MITIGATION COST (MWK)	MONITORING COST (MWK)
	(e.g. exposure to chemicals, welding fumes, ergonomic risks)	➢ compliance with EHS Guidelines. ➢ Use warning and informative signs at the construction site, and implement a robust site safety plan in line with the World Bank EHS Guidelines.	health incidents reported	occupational health hazards	PPE issuance logs, training attendance sheets			construction phase		
24	Community health and safety risks from project-related hazards (traffic, noise, dust)	➢ Implement community safety measures; monitor construction activities; provide community awareness sessions; adhere to EHS Guidelines for Community Health and Safety.	• Number of community complaints about traffic, dust, or noise	Zero unresolved community complaints	Grievance logs, contractor records, community meeting minutes	Contractors	PIU, MoE, Local Leaders, LTC/MTC Management	Bi-weekly during construction phase	Inclusive	Inclusive
25	Air pollution from equipment emissions	➢ Use low-emission equipment; maintain machinery regularly; implement idle reduction measures.	• Frequency of equipment maintenance and emissions testing reports	100% of equipment maintained and emissions checked as per schedule	Maintenance logs, emissions test certificates	Contractors	PIU, MoE, MEPA	Quarterly during construction phase	Inclusive	Inclusive
26	Increased water demand for construction	➢ Use of alternative water sources, for example, use water from Lunyangwa for MTC and Manchewe stream for LTC	• Use of alternative sources of water	100% for construction	Construction reports	Contractor	PIU, MoE, MEPA	Quarterly during the construction phase	Inclusive	Inclusive

SN.	POTENTIAL RISK	RECOMMENDED ENHANCEMENT/MITIGATION MEASURE ALIGNED WITH THE WORLD BANK EHS GUIDELINES AND GIIPS	PERFORMANCE INDICATOR	TARGET	MEANS OF VERIFICATION	RESPONSIBILITY FOR ENHANCEMENT/ MITIGATION	RESPONSIBILITY FOR MONITORING	TIMEFRAME & MONITORING FREQUENCY	MITIGATION COST (MWK)	MONITORING COST (MWK)
27	Increased water bills	➢ Have a separate meter for the contractor for domestic use	• Installation separate water meter for	Placement of a separate meter	Observation and reports	Contractor	PIU, MoE, MEPA	Quarterly during the construction phase	Inclusive	Inclusive
DEMOBILIZATION PHASE IMPACTS										
POSITIVE IMPACTS										
28	Reduced level of air pollution	➢ Carry out soft and hard landscaping after construction works to reduce risks of further dust emissions.	• Landscaped project area.	Zero reported cases of air pollution.	Records of cases of air pollution.	Contractors	Livingstonia and Mzuzu Technical Colleges, Local Leaders, and Rumphi and Mzimba District Councils	Once during demobilization	3,000,000	1000,000
29	Reduced level of noise pollution	➢ Ensure that demobilisation activities are conducted when classes are over or during weekends.	• Level of noise from project sites	Zero noise level.	Indicants of noise levels recorded.	Contractors	Local Leaders, and Rumphi and Mzimba District Councils	Twice during demobilization phase	Inclusive	200,000
NEGATIVE IMPACTS										
30	Reduced employment and business opportunities	➢ Ensure that all project workers have been given all their severance benefits as stipulated in Malawi Labour Laws. ➢ Disclose the project timeframe in good time to all project	• Number of reported business and employment loss.	Zero cases of employees not being paid their gratuities after the project.	Availability of detailed retrenchment plan for project workers.	Contractors	Rumphi and Mzimba District Councils Labour Office, Livingstonia and Mzuzu Technical Colleges, and Ministry of Labour	Once during demobilization Phase	Inclusive	200,000

SN.	POTENTIAL RISK	RECOMMENDED ENHANCEMENT/MITIGATION MEASURE ALIGNED WITH THE WORLD BANK EHS GUIDELINES AND GIIPS	PERFORMANCE INDICATOR	TARGET	MEANS OF VERIFICATION	RESPONSIBILITY FOR ENHANCEMENT/ MITIGATION	RESPONSIBILITY FOR MONITORING	TIMEFRAME & MONITORING FREQUENCY	MITIGATION COST (MWK)	MONITORING COST (MWK)
		workers for their planning sake.								
31	Increased risk of waste production	➢ Sell scrap metals and other wastes for re-use where possible. ➢ Dispose waste products in designated places. ➢ Implement final waste clean-up and site restoration as per EHS Guidelines.	• Clean project sites and surrounding areas.	Zero cases of poor waste management	Report on project wastes management	Contactors	Rumphi and Mzimba District Councils, and Livingstonia and Mzuzu Technical Colleges.	Twice during demobilization phase	2,000,000	1000,000
OPERATIONAL PHASE IMPACTS										
POSITIVE IMPACTS										
32	Increased employment opportunity	➢ Employ more people from communities around project sites including unskilled labourers.	• Number of skilled and unskilled individuals from surrounding communities employed by the project.	Employment of 95% unskilled labourers and at least 15% of skilled labourers from project area.	Records of member of staff and supporting staff employed.	Livingstonia and Mzuzu Technical Colleges	Ministry of labour, and Rumphi and Mzimba District Councils Labour Office.	Annually throughout project operation Phase	0	100,000
33	Boosted local businesses	➢ Give local business people an opportunity to supply food stuffs to LTC and MTC	• Inventory of locally procured materials.	at least 60% of local materials should come from communities	Records of locally procured materials.	Livingstonia and Mzuzu Technical Colleges	Rumphi and Mzimba District Councils and Local Leaders	Annually throughout operation phase	0	0

SN.	POTENTIAL RISK	RECOMMENDED ENHANCEMENT/MITIGATION MEASURE ALIGNED WITH THE WORLD BANK EHS GUIDELINES AND GIIPS	PERFORMANCE INDICATOR	TARGET	MEANS OF VERIFICATION	RESPONSIBILITY FOR ENHANCEMENT/ MITIGATION	RESPONSIBILITY FOR MONITORING	TIMEFRAME & MONITORING FREQUENCY	MITIGATION COST (MWK)	MONITORING COST (MWK)
		Students and Staff Members		around LTC and MTC.						
34	Increased use of modern infrastructures	➢ Conduct regular maintenance of the infrastructures to keep them in good condition.	• Continuous use of the infrastructures in good condition	Maintaining good standard of infrastructure	Availability of clear maintenance plan of the buildings.	Livingstonia Technical College	Ministry of Education and Rumph District Council Education Office	Annually throughout operation phase	0	200,000
35	Increased number of students being enrolled for tertiary education	➢ Employ more academic and non-academic staff to meet the demand of all students enrolled. ➢ Conduct regular maintenance of the buildings and equipment therein to keep then in good conditions all the time	• Number of students being enrolled at LTC	The rate of students enrolment should be always at 100% as required.	Records of students enrolment.	LTC	Ministry of Education and Technical, Entrepreneurial and Vocational Education and Training Authority (TEVETA).	Once a year throughout operation phase	0	0
NEGATIVE IMPACTS										
36	Increased Risk of Gender-Based Violence (GBV) and Sexual Harassment	➢ Adhere to GBV Management Plan ➢ Conduct GBV and Sexual Harassment sensitization at workplace	• Number of cases of Gender-Based Violence and Sexual Harassment.	Zero cases of GBV and Sexual Harassment.	Records of Gender-Based Violence cases	Livingstonia and Mzuzu Technical Colleges	Ministry of Labour, Rumphi and Mzimba District Councils Labour and Social Welfare Offices, and Local Leaders.	Quarterly throughout operation phase	200,000	100,000
37	Increased in energy demand	➢ Use solar power as an alternative source of energy.	• Cases of Campus blackouts.	Zero cases of campus blackouts	Records of Campus blackouts	Livingstonia and Mzuzu Technical Colleges	Ministry of Energy, Ministry of Education and	Annually throughout operation phase	1,200.000	200,000

SN.	POTENTIAL RISK	RECOMMENDED ENHANCEMENT/MITIGATION MEASURE ALIGNED WITH THE WORLD BANK EHS GUIDELINES AND GIIPS	PERFORMANCE INDICATOR	TARGET	MEANS OF VERIFICATION	RESPONSIBILITY FOR ENHANCEMENT/ MITIGATION	RESPONSIBILITY FOR MONITORING	TIMEFRAME & MONITORING FREQUENCY	MITIGATION COST (MWK)	MONITORING COST (MWK)
		➢ Use modern energy conserving electric lamps for general lighting.					Electricity Supply Corporation of Malawi (ESCOM)			
38	Increased potential of labour rights violations e.g. unequal access to job opportunities	➢ Employ unskilled labourers from surrounding communities. ➢ Give women and men equal employment opportunities. ➢ Monitor labor conditions under LMP.	• Number of women employed by the project. • Number of unskilled labourers employed.	Zero cases of Labour Rights violations.	Records of Labour Rights violation cases at the project sites.	Livingstonia Technical College	Ministry of Labour, Rumphi and Mzimba District Council Labour and Social Welfare Offices, and Local Leaders.	Twice in a year throughout operation phase	0	200.000
39	Increased generation of liquid wastes	➢ Install heavy-duty PVC pipe tube encased in concrete for all drain pipes passing under the buildings and driveway should be surround. ➢ Connect the sanitary facilities like toilets and washing rooms to the existing college sewer-line system. ➢ Conduct regular inspection and	• Presence of well-connected sanitary facilities to the existing sewer line system.	Training waste handlers and zero effluent spillages.	Records of effluent spillages.	Livingstonia and Mzuzu Technical Colleges	Rumphi and Mzimba District Councils	Annually throughout operation phase	300,000	100,000

SN.	POTENTIAL RISK	RECOMMENDED ENHANCEMENT/MITIGATION MEASURE ALIGNED WITH THE WORLD BANK EHS GUIDELINES AND GIIPS	PERFORMANCE INDICATOR	TARGET	MEANS OF VERIFICATION	RESPONSIBILITY FOR ENHANCEMENT/ MITIGATION	RESPONSIBILITY FOR MONITORING	TIMEFRAME & MONITORING FREQUENCY	MITIGATION COST (MWK)	MONITORING COST (MWK)
		maintenance of colleges sewer system.								
40	Increased risk of fire incidents	➢ Incorporatte fire-fighting equipment in the building designs. ➢ Provide fire extinguishers and place them at strategic points of the buildings. ➢ Designating fire assembly points. ➢ Train staff on emergency procedures in line with EHS Guidelines.	• Number of fire incidents reported	Zero fire incidents	Records of fire incidents	LTC and MTC	National Construction Industry Council (NCIC) and Rumphi and Mzimba District Councils Fire Departments.	Annually throughout operation phase	2,000,000	200,000
41	Increased water demand	➢ Install solar water pump. ➢ Install conserving taps that turn off automatically when water is not in use. ➢ Monitor usage regularly. ➢ conducting awareness campaigns for staff	• Cases of College water taps drying up.	Zero incidents of college water taps drying up.	Records of water taps drying up.	LTC and MTC	Ministry of Water and Sanitation, Ministry of Education and National Water Resource Authority (NWRA)	Throughout operation phase	1,000,000	700,000

SN.	POTENTIAL RISK	RECOMMENDED ENHANCEMENT/MITIGATION MEASURE ALIGNED WITH THE WORLD BANK EHS GUIDELINES AND GIIPS	PERFORMANCE INDICATOR	TARGET	MEANS OF VERIFICATION	RESPONSIBILITY FOR ENHANCEMENT/ MITIGATION	RESPONSIBILITY FOR MONITORING	TIMEFRAME & MONITORING FREQUENCY	MITIGATION COST (MWK)	MONITORING COST (MWK)
		and students on water-saving practices, ➢ grey water recycling, ➢ leak detection and maintenance, ➢ installing low-flow taps, dual-flush toilets, and water-efficient showerheads								
42	Increased generation of E waste	➢ Public awareness campaigns to educate households, schools, and institutions about responsible e-waste handling.	• Number of awareness campaigns conducted annually • Number of participants reached (disaggregated by gender, age, institution type) • Number of IEC (Information, Education, and	2 60% women and youth 10	Reports	LTC and MTC	Rumphi and Mzimba District Councils Environmental Health Offices.	Annually throughout the operation phase	Inclusive in waste management activities	Inclusive in waste management activities

SN.	POTENTIAL RISK	RECOMMENDED ENHANCEMENT/MITIGATION MEASURE ALIGNED WITH THE WORLD BANK EHS GUIDELINES AND GIIPS	PERFORMANCE INDICATOR	TARGET	MEANS OF VERIFICATION	RESPONSIBILITY FOR ENHANCEMENT/ MITIGATION	RESPONSIBILITY FOR MONITORING	TIMEFRAME & MONITORING FREQUENCY	MITIGATION COST (MWK)	MONITORING COST (MWK)
			Communication) materials distributed • Media coverage achieved (radio programs, social media	All major media outlets						
		➢ Establishing collection points for e-waste at public facilities, ICT hubs, and community centres.	• Number of e-waste collection points established and operational • Reduction in illegal dumping of electronic waste (based on environmental monitoring)	2 50%	Reports and presence of collection points	LTC and MTC	Rumphi and Mzimba District Councils Environmental Health Offices.	Annually throughout the operation phase	Inclusive in waste management activities	Inclusive in waste management activities
		➢ Partnerships with private sector recyclers for safe	• Number of formal partnerships or MoUs	Minimum of 2 MOUs, 1 in each institution	No of MOUs	LTC and MTC	Rumphi and Mzimba District Councils Environmental Health Offices.	Annually throughout the operation phase	Inclusive in waste management activities	Inclusive in waste management activities

SN.	POTENTIAL RISK	RECOMMENDED ENHANCEMENT/MITIGATION MEASURE ALIGNED WITH THE WORLD BANK EHS GUIDELINES AND GIIPS	PERFORMANCE INDICATOR	TARGET	MEANS OF VERIFICATION	RESPONSIBILITY FOR ENHANCEMENT/ MITIGATION	RESPONSIBILITY FOR MONITORING	TIMEFRAME & MONITORING FREQUENCY	MITIGATION COST (MWK)	MONITORING COST (MWK)
		dismantling, storage, and transport of e-waste to licensed facilities.	signed with licensed recyclers • Volume of e-waste safely transported and processed by certified facilities	All e-waste collected	E waste collection reports					
43	Increased generation of solid wastes	➢ Explore possibilities of solid wastes recycling. ➢ Provide enough rubbish bins and pits. ➢ Implement waste separation and recycling initiatives.	• Presence of rubbish bins and pits. • Volume of waste disposed in designated places.	Well-managed solid waste disposals.	Records of solid waste management and disposition in designated place.	LTC and MTC	Rumphi and Mzimba District Councils Environmental Health Offices.	Annually throughout operation phase	3,300,000	1,000,000
		TOTAL ESTIMATED COST							**26,200,000.00**	**14,000,000.00**

CHAPTER 6: IMPLEMENTATION ARRANGEMENTS

6.1 Implementation Arrangements and information flow

Once the project enters the implementation and operations phase, management of LTC and MTC and the contractors will have to oversee the environmental and social management of the project. While it is critical to address adverse impacts, management of the two colleges and contractors should also proactively enhance project benefits in consultation with the affected people, and other stakeholders.

All contractors shall prepare site-specific Contractor ESMPs (CESMPs) aligned with this ESMP, subject to review and approval by the PIU and LTC/MTC.

The Ministry of Education Project Implementation Unit (PIU) and the two colleges will fully be the implementing institutions for their respective projects (while ensuring coordination with each other). The PIU will ensure funds are mobilised to the colleges, Contractor and Consultant. They will maintain/ manage the project account and preparing financial reports. As part of their oversight, MTC and LTC should ensure that the necessary funds and resources are readily available to avoid unnecessary delays or suspension of works. In liaison with the PIU, MTC & LTC will undertake the procurement of goods and services. The PIU should include a full-time project coordinator, a procurement specialist, a financial management specialist, Communication specialist, Social Safeguard Specialist, Environmental Safeguard Specialist, and M&E specialist. LTC and MTC as beneficiaries of the respective projects should also have project coordinators, environmental and social safeguards specialists who will be responsible for regular Environmental and Social (E&S) reporting and monitoring. At a minimum, the reporting will include:

(i) the overall implementation of E&S risk management instruments,
(ii) any environmental or social issues arising as a result of project works and how these issues will be remedied or mitigated,
(iii) OHS performance (including incidents and accidents),
(iv) community consultation updates,
(v) public notification and communications,
(vi) progress on the completion of project works,
(vii) Summary of grievances/beneficiary feedback received, actions taken and complaints closed out, and
(viii) LTC and MTC will be submitting monthly reports to the PIU for consolidation and further transmission to the Bank on quarterly basis (Reports from the technical

colleges will be submitted to the PIU at the Ministry of Education where they will be assembled and submitted to the World Bank on a quarterly basis.)

PIU, MTC & LTC and Contractor should collaborate with other relevant stakeholders such as MEPA to implement mitigation and monitoring measures in accordance with provisions, timeframes, and requirements set out in the ESMP. All project activities will adhere to the World Bank Group ESF, EHS Guidelines and Good International Industry Practice (GIIP) to ensure effective environmental and social risk management. The Environmental District Officers (EDO) for Mzimba and Rumphi must be greatly involved in Monitoring for compliance with ESMP recommendations. Mzuzu and Livingstonia Technical Colleges and their contractors should also collaborate with affected people, local leaders, community members and experts/researchers on coordinating responsibilities and arrangements for specific mitigation and monitoring activities within ESMP where possible. The effectiveness of each mitigation activity should be revealed through regular Project Monitoring and Reporting. Details of the implementation arrangements, roles and responsibilities of each stakeholder are outlined in Table 6-1.

Table 6-1: Implementation Arrangements

SN.	RESPONSIBLE PARTY	ROLE AND RESPONSIBILITIES
1.0	National level: Ministry of Education and Ministry of Labour and PIU	- Planning and implementation of the ESMP. - Ensuring that social and environmental protection and mitigation measures in the ESMP are incorporated into site-specific Environmental and Social Action Plans. - Ensuring that the District Environment Sub-Committee (DESC) guided by the Environmental District Office is provided with relevant resources to oversee the implementation of the ESMP. - Supervision and monitoring of the progress of activities of contracted consulting engineers for the implementation of different components of the ESMP. - Responsible for modifications to the ESMP when unexpected changes are observed during implementation. - Reporting of incidents (Authorities, World Bank). - Ensure submission of periodic environmental and social management and monitoring reports to the World Bank. - External communication with other implementing partners, government ministries and agencies, and non-government organizations on the matter of mutual interest related to environmental management under project development

SN.	RESPONSIBLE PARTY	ROLE AND RESPONSIBILITIES
		- Managing the implementation of the project including the Environmental and Social Management Plan - PIU and contractors shall develop and implement an E-Waste Management Plan to ensure safe handling, storage, and disposal of electronic waste from ICT labs and solar systems, aligned with ESS3. - Organise and manage training for central and field staff, including contractors who will be responsible for the implementation of the ESMP and the whole project at large. - Provision of overall supervision of the project implementation, starting from the planning phase through the construction phase and decommissioning phase to the operation phase. - Ensure that all the bidding and contract documents, including all relevant E&S Management provisions as per screening forms and ESMP. - Provision of financial management and guidance, and administrative support for effective project implementation. - Compile progress report from local and regional levels on project implementation and report to the World Bank every quarter.
2.0	MEPA	- Provision of permits, including ESMP and Hazardous waste handling permit/protocol. - Monitor the compliance of environmental and social performance through the effective use of management systems;
3.0	District level (DEC with assistance from the EDO)	- Local field staff will be expected to provide training to local contractors and communities on relevant environmental and social mitigation measures. - Writing progress reports of the project implementation at the national level. - Overseeing daily project implementation and provision of monitoring services on implementation of environmental and social impacts mitigation measures. Help to resolve grievances of workers concerning project implementation.

SN.	RESPONSIBLE PARTY	ROLE AND RESPONSIBILITIES
4.0	Contractors	- Take all necessary measures to protect the health and safety of workers and community members during project implementation. - Avoid, minimise or mitigate any environmental harm resulting from project activities and ensures compliance with WBG ESF, EHS Guidelines and GIIPs. - Ensure that all the requirements and standards of the project are met during project implementation. - Writing progress reports of the project implementation. - Comply with the project's environmental and social impact, mitigation and management measures as indicated in ESMP and contract documents, including international and national legislations. Help to resolve concerns of workers with respect to project implementation.
5.0	Supervising Consultant (Engineer, ESS)	- Development of a monitoring tool or checklist based on the ESMP and guided by the project's physical layout. - Develop a monitoring program for the works, targeting specific project working sites, material sites, sensitive environments, social areas, etc. - Prepare monthly site meetings to involve the Contractor, Client and Stakeholders. - Monthly reports in addition to continuous communications to the Contractor, Client, Authorities and Stakeholders as situations require. - The Consulting Engineer will convene monthly meetings for progress reporting by the Contractor and the supervision team.

As beneficiaries of SAVE projects, Livingstonia and Mzuzu Technical Colleges should designate project coordinators and environmental and social specialists to oversee regular Environmental and Social (E&S) reporting and monitoring.

6.2 Role and Responsibilities

Many stakeholders will be actively engaged in monitoring the project. **Table 6-2** outlines the key roles and responsibilities of each stakeholder in the implementation of Environmental and Social Management measures.

Table 6-2: Roles and Responsibilities of Project Stakeholders

ACTIVITY	RISK AND IMPACTS	MITIGATION MEASURES	RESPONSIBLE ENTITY
Planning and design	Anxiety created amongst people around the project area.	- Sensitization of surrounding communities prior to the project implementation.	*Implementation:* Developers *Monitoring:* Rumphi and Mzimba DESCs and Local Leaders
Construction works and operation of the project	Job creation	- Prioritize employing unskilled labours from surrounding communities.	*Implementation:* Contractors *Monitoring:* Rumphi and Mzimba District Councils Labour Office, LTC and MTC
Civil works	Increased risk of Air pollution	- Regular application of water to civil work area and earth roads to supress dust.	*Implementation:* Contractors *Monitoring:* Local Leaders, LTC, MTC, Rumphi and Mzimba District Councils Environmental and Health Offices.
Construction works	Increase in business activities.	- Designating an area as a market within the project site.	*Implementation:* LTC, MTC and Contractors *Monitoring:* Rumphi and Mzimba District Councils Social Welfare Offices.
Construction works	Increased Soil erosion	- Clearing only those places where buildings will be constructed.	*Implementation:* Contractors *Monitoring* Developers, Local Leaders, Rumphi and Mzimba District Councils Agriculture Offices.

ACTIVITY	RISK AND IMPACTS	MITIGATION MEASURES	RESPONSIBLE ENTITY
Civil works	Increased Soil contamination	- Servicing areas for vehicles should have impermeable surfaces and should be bunded.	*Implementation:* Contractors *Monitoring* Rumphi and Mzimba District Councils Agriculture Offices and Developers
Civil works	Increased Noise pollution	- Provision of ear protection materials for the workers and fitting construction vehicles with silencers.	*Implementation:* Contractors *Monitoring:* Developers, Local Leaders, Rumphi and Mzimba District Councils Public Works Offices.
Civil and demobilization works, and operation of the project	Increased generation of waste	- Provision of dust bins or rubbish pits for the solid wastes. - Disposing of wastes at the designated places.	*Implementation:* Contractors *Monitoring:* Developers, Rumphi and Mzimba District Councils Environmental, and Health Offices.
Civil works and operation of the project	Increase in theft and criminal acts	- Introduction of community policing in conjunction with Livingstonia Police Station.	*Implementation:* Contractors and Developers *Monitoring:* Local Leaders, Livingstonia Police, Mzuzu City Police, Rumphi and Mzimba District Councils.
Construction works	Increase in accident and injuries incidents	- Training workers on proper use and handling of heavy equipment and machinery. - Use of warning signs.	*Implementation:* Contractors *Monitoring:* Developers, Rumphi and Mzimba District Councils Public Works Offices.
Construction works	Increase in the spread of Spread of HIV and other STIs	- Sensitizing surrounding communities and workers on the dangers of unacceptable unions	*Implementation:* Contractors *Monitoring:*

ACTIVITY	RISK AND IMPACTS	MITIGATION MEASURES	RESPONSIBLE ENTITY
		and distribution of condoms to all workers.	Local Leaders, LTC, MTC, Rumphi and Mzimba District Councils Health, and Social Welfare Offices.
Construction works	Increased Traffic density	- Controlling traffic along the connecting roads to the project site. - Use of warning and informative signs.	*Implementation:* Contractors *Monitoring:* Rumphi and Mzimba District Councils Public Works Offices, LTC, MTC and Local Leaders.
Demobilization works	Reduced level of noise	- Removing all working and damaged construction machinery and equipment from the site.	*Implementation:* Contractors *Monitoring:* Rumphi and Mzimba District Councils Public Works Offices, Local Leaders and Developers.
Operation of the project	Increase in water demand	- Installation of water conserving taps that turn off automatically when water is not in use. - Encourage water reuse/recycling during occupation phase.	*Implementation:* Developers (LTC & MTC) *Monitoring:* PIU, Rumphi and Mzimba District Councils and Ministry of Education.
Civil works and project operation	Poor sanitation	- Provision of pit latrines for workers on the construction site. - Provision of portable water within the site.	*Implementation:* Contractors and Developers *Monitoring:* Rumphi and Mzimba District Councils Environmental Health Offices respectively and Local Leaders
Project operation	Increase in energy demand	- Installation and use of solar power as an alternative source of energy.	*Implementation:* LTC and MTC *Monitoring;* Ministry of Education, ESCOM, PIU, Rumphi

ACTIVITY	RISK AND IMPACTS	MITIGATION MEASURES	RESPONSIBLE ENTITY
		- Put off all lights immediately when not in use or not needed.	and Mzimba District Councils
Layoff of workers	Loss of employment	- Educating the labour force on the need to save part of their wages.	*Implementation:* Contractors and Developers *Monitoring:* Local Leaders, Rumphi and Mzimba District Councils Labour Offices
Construction works and project operation.	Generation of liquid wastes	- Connecting the sanitary facilities, like toilets and washing rooms to the existing sewer line system. - Frequent monitoring of the internal drainage system.	*Implementation:* Contractors *Monitoring:* Rumphi and Rumphi District Councils Environmental Health Offices.

6.3 Capacity Building and Training

The training and capacity building are essential in effective implementation of the proposed construction project and the environmental and social risk management measures outlined in this ESMP for Mzuzu and Livingstonia Technical Colleges. These trainings are designed to equip the groups with the skills needed to monitor and manage the social and environmental impacts that may arise during project implementation. Additionally, they will help ensure the efficient and effective implementation of the ESMP provisions. Based on the assessment of the institutional capacity of different agencies that will be involved in the implementation of the ESMP, the following broad areas of capacity building have been identified and recommended by consultants and other stakeholders for effective implementation of this ESMP.

- Grievance Redress Management (GRM) and function of its committee
- Environmental and Social Monitoring and Audit
- Waste Management (both solid and liquid wastes)
- Environmental and Social Reporting
- Child Labour Management
- Gender Based Violence (GBV) and Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH) Management

- ❖ Environmental Health & Safety (EHS)
- ❖ Stakeholder Engagement Plan (SEP)
- ❖ ESF Requirements
- ❖ Roles and responsibilities for environmental and social issues
- ❖ Occupational Health and Safety
- ❖ Labour requirements
- ❖ Emergency prevention and preparedness and response arrangements to emergency situations
- ❖ Managing GBV/SEA risks
- ❖ Training for education establishment employees, students and local communities, particularly women:
- ❖ The function of the GRM and Grievance Redress Committees
- ❖ GBV/SEA provisions and referral pathways
- ❖ Road safety and community health and safety

As much as possible, training on E & S risk management will be integrated into the project cycle from planning, construction, operational and monitoring phases. Given the need to raise awareness among project workers, students and staff of MTC and LTC and other stakeholders at the local level, information will follow a cascading model and flow from the national level, district, College level, project workers to the local communities as the project progresses. Table 6-3 presents detailed approach of the proposed training and capacity-building areas of focus. To minimise on costs the training sessions will as much as possible utilise existing structures for the different target groups. For example these can be scheduled along planned gatherings in the nearby village, student union gatherings, meetings of DESC for Rumphi and Mzimba briefing sessions for contractors' staff and alongside staff meetings of MTC and LTC.

Table 6-3: Proposed Capacity Building and Trainings Approach

Sn	Level	Responsible Personnel	Audience	Topic/Themes which May Be Covered	Estimated Cost (Mwk)
1	National Level	PIU	LTC Staff - MTC Staff - Consultants	ESMF and approach: -Identification and Assessment of E&S risks - Selection and application of relevant E&S risk	1,000,000.00

Sn	Level	Responsible Personnel	Audience	Topic/Themes which May Be Covered	Estimated Cost (Mwk)
			MEPA staff	management measures/instruments - E&S monitoring and reporting - Incident and accident reporting	
2.	District Level	LTC Staff Members, MTC Staff Members and PIU Consultant	-Contractors, and - DESC members	ESMF and approach: - Identification and assessment of E&S risks - Selection and application of relevant E&S risk management measures/instruments - E&S monitoring and reporting. - Incident and accident reporting - Application of SEP and the grievance/beneficiary feedback mechanism - Gender Based Violence (GBV) and Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH) Management	1,500,000.00
3	Project Level	MEPA, EDO, LTC, MTC, Contractors, Mzimba and Rumphi Environmental Officer's respectively	- LTC & MTC Staff and Students - Project workers Contractor's staff	- DRR/DRM concepts and applications - Environmental and Social Audits. - Application of Labour Management Plan including Code of Conduct and incident reporting. - Management of Gender Based Violence, sexual harassment and abuse, child labour and sexual exploitation.	1,500,000.00

Sn	Level	Responsible Personnel	Audience	Topic/Themes which May Be Covered	Estimated Cost (Mwk)
				- Overview of Child Labour Management Plan. - Application of SEP and the beneficiary feedback/ grievance mechanism.	
4.	Community level	LTC Staff Members, MTC Staff Members and DESC Members	Local leaders, Community members, and Local project workers	- Workers' Grievance Redress processes. - Use of fire-fighting equipment. - Use of different warning and informative sings at construction sites. - An overview of community Health and Safety Hazards in construction. - How to use Personal Protective Equipment (PPEs). - HIV and other STIs prevention measures. - Workers' code of conduct at work. - COVID-19 mitigation measures.	1,000,000
	TOTAL ESTIMATED COST				**5,000,000**

6.4 Estimated Budget

The implementation of the Environmental and Social Management Plan (ESMP) for the construction projects will incur costs of **MW59, 000,800.00** for Livingstonia Technical College. While on the other hand, Mzuzu Technical College projects will cost **MWK52, 000,800.00.** A detailed breakdown of activity costs is provided in table 6-4 and 6-5 below.

Table 6-4: Summary of ESMP Implementation Budget for Livingstonia Technical College

SN.	ACTIVITY	POTENTIAL COST (MWK)
1	Implementation of site-specific ESMP and other site-specific plans.	

SN.	ACTIVITY	POTENTIAL COST (MWK)
		26,200,000
2	Training programs	5,000,000
3	Cost of acquiring different permits and clearing other imported goods and services.	4,800,000
4	Printing of awareness-raising materials and grievance redress materials.	9,000,800
5	Procurement of software for data collection, supervision, monitoring and grievance redress.	14,000,000
TOTAL		**59,000,800.00**

Table 6-5: Summary of ESMP Implementation Budget for Mzuzu Technical College

SN.	ACTIVITY	POTENTIAL COST (MWK)
1	Implementation of site-specific ESMP and other site-specific plans.	26,200,000.00
2	Training programs	5,000,000.00
3	Cost of acquiring different permits and clearing other imported goods and services.	2,000,000.00
4	Printing of awareness-raising materials and grievance redress materials.	4,800,800.00
5	Procurement of software for data collection, supervision, monitoring and grievance redress.	14,000,000.00
TOTAL		**52,000,800.00**

CHAPTER 7: STAKEHOLDER ENGAGEMENT, GRIEVANCE REDRESS MECHANISM, DISCLOSURE AND CONSULTATION

7.1 Stakeholder Engagement and Consultations

The stakeholders engaged in the project comprise government agencies and ministries, Non-Governmental Organisations (NGOs), local leaders, community members, Livingstonia Technical College staff and students, and Mzuzu Technical College staff and students. Various stakeholder engagement approaches were employed to ensure inclusive participation and effective communication, including consultative meetings, Focus Group Discussions, questionnaires, surveys, public notices, community sensitisation, information sharing, and feedback mechanisms. These approaches facilitated transparency, collaboration, and mutual understanding among stakeholders, laying the groundwork for successful project implementation. Some approaches were used during stakeholders' engagement, including:

Workshops: Interactive sessions with NGOs, PIU and government agencies and ministries to discuss technical aspects of the construction project at LTC and MTC.

Surveys: Questionnaires distributed to gather feedback and concerns from stakeholders such as local leaders, LTC staff members, MTC staff members and community members.

Public Consultations: Regular meetings with local and colleges authorities to discuss project impacts and mitigation measures.

The consultant conducted extensive stakeholder consultations, meeting with national-level representatives from Ministries of Education, Youth and Sports, Labour, and Gender on June 9, 2023. Additionally, consultative meetings were held with Rumphi District DESC members (June 7, 2023), Mzimba (Mmbelwa) District DESC members (June 8, 2023), staff and students of Livingstonia Technical College (June 6, 2023), and Mzuzu Technical College (June 5, 2023), as well as local leaders and community members. Attendance registers and meeting minutes are appended (Appendices 11 – 20). These engagements informed the development of a separate Stakeholder Engagement Plan (SEP), aligned with the World Bank's Environmental and Social Standard (ESS 10) on stakeholder engagement. The SEP can be found here:

https://documents1.worldbank.org/curated/en/314131616158364147/pdf/Stakeholder-Engagement-Plan-SEP-Skills-for-A-Vibrant-Economy-Project-P172627.pdf.

This ESMP as well as Social Commitment Plan (ESCP) and SEP that have been prepared for this project have been disclosed in the draft for stakeholder consultations on the following website: https://www.education.gov.mw/index.php/edu-resources/documents-and-publications/category/3-save-project?download=8:environmental-and-social-commitment-plan-escp-save-project. The feedback for this ESMP, if any, should be addressed to:

a. The Principal, Livingstonia Technical College, Rumphi District. The website address and date for feedback on this ESMP will be provided by the Ministry of Education.
b. The Principal, Mzuzu Technical College, Mzimba District. The website address and date for feedback on this ESMP will also be provided by the Ministry of Education

The following **figure 7-1** shows consultant conducting stakeholders' consultation meetings.

7.1.1 Accountability and Information Flow among Stakeholders

Information flows through multiple levels, from national institutions to the ground, and upward from communities and contractors back to the World Bank, creating a structured, multi-directional reporting system. First, the World Bank provides environmental and social safeguard standards. These are implemented together with the national environmental and social laws and polices. Compliance with its Environmental and Social Framework (ESF) is mandatory. Malawian Ministries and MEPA translate these standards into policy, allocate funds, and issue permits. The Project Implementation Unit (PIU) ensures rules, guidelines, and resources reach District Committees, Contractors, universities, national technical colleges,

skills development centres, and other beneficiaries. These actors train workers, staff, and students on safety and environmental protection. Students, workers, and communities provide feedback, report concerns, or use grievance mechanisms. Beneficiaries collect this information and submit it to the PIU. The PIU compiles and communicates reports to the World Bank and relevant ministries and agencies. This allows timely adjustments and strengthens safeguards.

National Level

At the top, the **Ministry of Education**, the **Ministry of Labour**, and the **Project Implementation Unit (PIU)** lead ESMP implementation. Information flows downward as policies, guidelines, training, funding, and safeguard provisions included in bidding and contract documents.

Information also flows upward. **Contractors, consultants, and district officers** submit progress reports, compliance updates, and incident reports to supervising consultants. These are consolidated and sent to the PIU and relevant Ministries through the Local Technical Committee (LTC) and the Monitoring Technical Committee (MTC) on a monthly basis. The PIU then compiles quarterly reports for the World Bank. For incidents and accidents, reports follow the same route but must reach the World Bank within 24 hours.

The PIU also adjusts the ESMP when risks are identified, ensuring that World Bank safeguard standards remain embedded in project management.

Regulatory Authority

The **Malawi Environmental Protection Authority (MEPA)** ensures regulatory compliance. MEPA issues permits, approvals, and waste-handling protocols and conducts independent inspections. Compliance monitoring reports are shared with the PIU, maintaining alignment with national law and World Bank ESS requirements.

Institutional Level

The beneficiary Institutions in liason with District Environmental Committee (DEC) and Environmental District Officer (EDO) link national authorities to local implementation setups. Information flows downward as training, monitoring tools, and resources to contractors, communities, government officials, and institutions. Information flows upward as field reports, grievance records, and feedback from contractors, workers, staff, and students. Institutions in

collbaoration with district officers forward these reports to the PIU, ensuring that community-level concerns inform higher-level oversight.

Contractors, Institutions, and Government Officials

Contractors, institutions, and government officials share operational responsibility. They receive safeguard requirements, safety rules, and mitigation measures from the PIU and DEC. Contractors pass this information to workers, communities, and staff. Government officials and institutional management reinforce compliance. Contractors and staff submit compliance reports and incident logs. Supervising consultants develop monitoring tools, hold site meetings, and compile monthly reports. This creates a continuous cycle of upward reporting and downward supervision

Beneficiaries, Communities, Workers, and Students

At the base of the system are **universities, technical colleges, skills centres, workers, students, and communities**. They receive information on environmental and social safeguards, e-waste management, occupational health standards, ICT systems, solar installations, and ESMP compliance.

Universities, technical colleges, and skills centres receive guidance on safeguards, e-waste, and occupational health. Staff are trained on ICT systems, solar installations, and ESMP compliance. Workers receive safety briefings. Students learn responsible facility use. Communities are informed about grievance mechanisms and environmental protection.

Feedback flows upward. Workers raise concerns with contractors. Staff and officials report challenges. Students flag safety or usage issues. Communities escalate grievances. These inputs reach contractors, district officers, and the PIU for resolution.

Conclusion

The information flow in ESMP implementation is **multi-directional and layered**. The World Bank provides the safeguard framework; the PIU coordinates compliance and reporting; MEPA enforces standards; district and beneficiary institutionsbridge policy and practice; contractors, institutions, and officials manage operations; and communities, workers, staff, and students provide feedback. **Fig. 7.2: Multi-directional stakeholder information flow diagram**

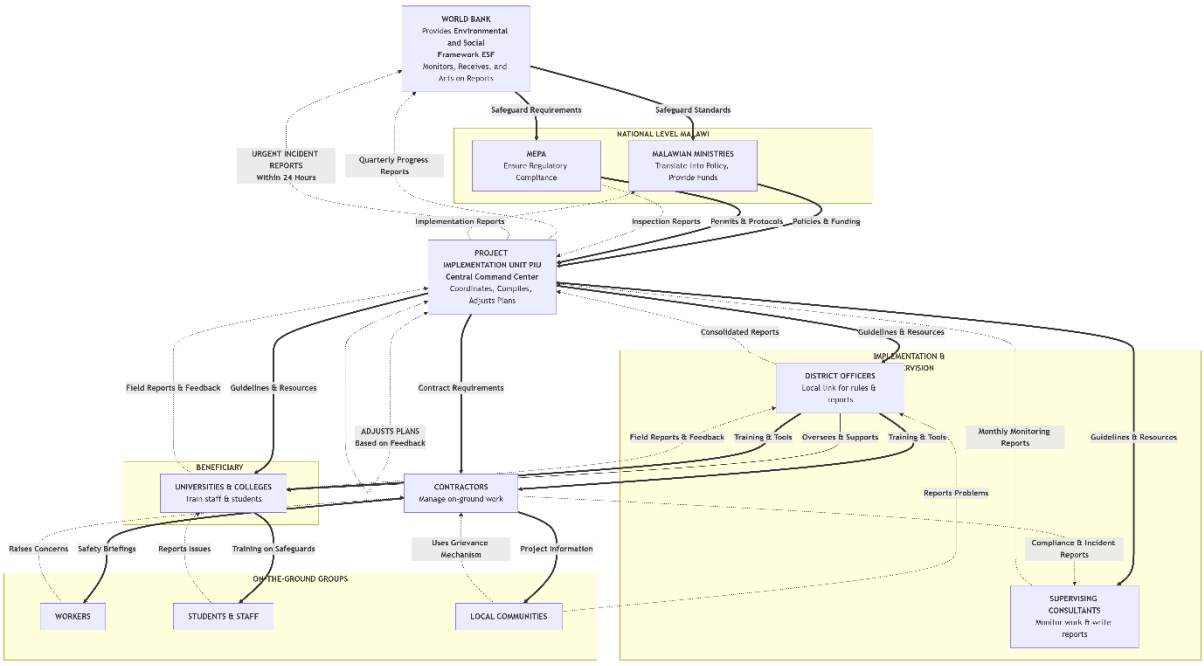


Table 7-1: Summary of Issues raised at Livingstonia Technical College

NO.	ISSUE RAISED	CONSULTANT RESPONSE
1	Problem of shortage of water at LTC	➢ This is very good observation; it will be included in the ESMP as recommendation to find an alternative source of water for the project.
2	How long will the project take?	➢ The plan is to finalize everything by 2027 and currently the project has been approved.
3	Concerns above large number of unskilled immigrant labourers.	➢ It will be recommended in the ESMP for the contractor to employ more unskilled labourers from communities around project area.
4	What type of bricks will be use?	➢ Cement blocks are the once recommended, all other bricks and materials which are not environmentally friendly are not welcome.
5	Consideration for LTC final year students to do internship during construction phase of the project	➢ This will be recommended to the contractor(s) to consider final year students studying welding, carpentry, bricklaying etc for internship.

6	Need for construction of drainage systems.	➢ The World Bank is very strict on the drainage system, we have a section of Waste Management and a section of storm water management system in ESMP so all drain water flow into proper channel.
7	What will the contractor do for the area as a corporate social responsibility?	➢ Since this is government project, the contractor is not supposed to do any corporate social responsibility to the surrounding communities.
8	Who is going to identify contractor for the project?	➢ Project Implementation Unit is the one responsible to identify the contractor.
9	Need for proper dissemination of information about progress of the project.	➢ Consultant assured the stakeholders that there will be proper information dissemination about the progress of the project. In additional, when the project designs are ready will be shared to all stakeholders to appreciate.
10	Are the building designs going to accommodate people with different disabilities?	➢ All these are going to be considered and the buildings will be user friendly to all people including those with different disabilities.

Table 7-2: Summary of Issues Raised at Mzuzu Technical College

SN	ISSUE RAISED	RESPONSE BY CONSULTANT
1	Need for a Gender Committee to address social issues	To avoid too many committees, the current GRM should be strengthened
2	Concerns about corruption and extortion by supervisors	A Code of Conduct will be developed People will be sensitized to report any corruption
3	Potential for project workers to exploit local women and girls	Contractor will develop a Gender based Violence Management Plan
4	Concerns about waste management	Contract will develop a Waste Management Plan
5	Noise pollution from construction works in classes	Contractor to follow an agree schedule for major construction works

6	How they would benefit from the project	Through employment, business opportunities & Sensitization meetings will be conducted improved learning environment
7	How cut-down trees would be replaced	The project will observe the requirements of the forest policy. For every tree cut, 10 will be planted
8	Increase in drug and substance abuse and	Sensitization meetings will be conducted
9	The risk of sexually transmitted infections (STIs) and the need for guidelines to prevent these issues.	Sensitization meetings will be conducted

7.2 Grievance Redress Mechanism and Disclosure

A Grievance Redress Mechanism (GRM) in an ESMP is a structured process for addressing complaints and concerns from the stakeholders affected by the project's environmental and social impacts. The following table 7-3 presents some of the key components of a GRM;

7.2.1 Grievance Redress Mechanism (GRM) – MZUZU Technical College and Livingstonia Technical College

The Grievance Redress Mechanism (GRM) for the Skills for a Vibrant Economy (SAVE) Project at **Mzuzu Technical College** and **Livingstonia Technical College** is designed to provide a fair, transparent, culturally and gender sensitive and timely process for addressing complaints from all project stakeholders.

These two institutions operate in similar geographic contexts as they are both located in the northern region of Malawi. However, they only differ in the levels of urbanisation. Mzuzu Technical College is located in the heart of Mzuzu City. It is situated in an urban setting characterized by dense residential and commercial activities. The social interactions with the broader city community are constant. In contrast, Livingstonia Technical College is located in a rural environment within the historic Livingstonia Mission Headquarters. It is a hub that hosts a mission University, hospital, secondary school, churches, and other mission institutions.

However, both sites will be hosting construction works. This will see workers present both on-site and within surrounding communities. This creates two main categories of grievances:

i. **General Project GRM** – for issues affecting students, staff, community members, neighbouring institutions, and other stakeholders impacted by the project's operations.

ii. **Workers GRM** – for employment-related grievances arising among project workers and contractor workers.

This GRM adheres to the World Bank Environmental and Social Framework (ESF) principles.[1] It ensures accessibility, cultural appropriateness, gender sensitivity, and non-retaliation. It is designed to function in both proactive and reactive ways. Proactively, it raises awareness of rights and procedures. Reactively, it provides a trusted channel for resolving disputes.

1. Structure and Processes of the GRM

A. Levels of Operation

The mechanism functions at two operational levels:

i. **Institutional and Community level**, where each college has committees dedicated to both general Project GRM and Workers GRM.

ii. **Project Implementation Unit (PIU) level**, which handles cases referred from the institutional level or unresolved appeals.

B. Committees and their Roles

i. General Project Grievance Redress Management Committee

This committee addresses grievances from the wider stakeholder base such as students, parents, community members, neighboring institutions, and business entities. Typical complaints relate to dust, noise, safety risks and access restrictions due to construction among others.

At Mzuzu Technical College, this committee works closely with municipal authorities, local councilors, and community leaders in surrounding wards. At Livingstonia Technical College, the committee works with mission leadership, hospital administration, university representatives, and community leaders to ensure that concerns are addressed in an inclusive and culturally sensitive manner.

Membership includes a college management representative (Chair), student representative(s), community leader, women's representative, Village Development Committee member. At Livingstonia Technical College, there are representatives from the Mission, community, university and the Hospital.

ii. Workers Grievance Redress Management Committee

[1] ESS 10 of the World Bank ESF, paragraphs 26-28, page 100

This committee deals exclusively with grievances from construction workers and project staff. This covers issues such as contract terms, wage disputes, occupational health and safety, harassment, and working conditions.

In Mzuzu, the committee will manage a diverse and mixed urban and migrant workforce. At Livingstonia, most workers will be locally recruited, often with community ties. The committee has two elected worker representatives, a college management representative, the contractor's site representative, and a Labour Officer from the District Labour Office.

C. Reporting Lines and Referral System

The grievance redress committee has multiple ways for grievance reporting. Complaints of grievances are reported in different ways including but not limited to the following:

Face-to-Face: this includes verbal or written submissions through face-to-face interactions with members of grievance redress committees.

Grievance Box: these are placed in strategic places around the Mzuzu Technical College and Livingstonia Technical College Campuses.

Complaints are also submitted verbally, in writing, or via phone, email, or designated complaint boxes. At Livingstonia, complaint boxes are placed at secure points at the Technical College, Secondary School, Mission Hospital and University to reach a wider audience. The grievance handling process follows a clear referral pathway:

1. The complaint is lodged with the appropriate committee (General Project GRM or Workers GRM).
2. The committee registers the complaint, acknowledges receipt within **72 hours**, and commences investigation of the matter.
3. The committees investigate the grievance within 10 days
4. The resolution is granted within 14 days. The outcome is documented and communicated to the complainant.
5. If unresolved, the complainant is at liberty to appeal to higher committees or any other body from 15 to 30 days
6. The case is also referred to the PIU GRM Committee.
7. Should the PIU fail to resolve the matter, it is referred to external bodies such as the District Labour Office (for worker issues) and judicial authorities.

Appeals are submitted within **15 days** of the decision and responses must be provided within **10 days** of appeal receipt.

D. Responding to and Resolving Complaints

Complainants should be attended to and responded to within a maximum period of 14 days after receipt of the complaint regardless of whether a decision has been reached. The environmental and social focal persons appointed by the Mzuzu Technical College and Livingstonia Technical College anchor as designated officers responsible for coordinating GRM operations. The complainant should be informed that their complaint has been received and that:

i. If the complaint is upheld, advise the complainant what action will be taken.
ii. If a complaint is not upheld, the complainant must be informed of this, the reason why, their right to appeal and where to take the complaint to.
iii. If a decision has not been reached within the committed timeframe, the complainant will be provided with a progress report and an indication of a likely date of conclusion.

E. Assessment of a Complaint / Grievance Received

When a complaint is received, an assessment is done to determine whether the complaint or grievance is related to the project implementation or not. If the complaint is not related to the project, the complainant is advised to channel their complaint to the relevant institution. If the complaint or grievance is related to the project, the GRM committee hears the case and make the necessary follow-ups to establish the truth of the matter. The outcome of the analysis is communicated to the complainant within a period of 10 to15 days.

F. Resolution and Closure

Where a resolution has been arrived at and the complainant accepts the resolution, the complainant signs the resolution and closure section in the Grievance Logbook. A member of the GRM committee (preferably the Chairperson or Secretary) counter signs. This signifies that the complaint or grievance has been fully discussed and closed. In case of a referral, the same members sign to authenticate that the case was not closed and has been referred to another entity.

G. Registry and Monitoring

All grievances received are recorded into a logbook. This aids in tracking and monitoring progress. The register presents a database showing the number of complaints:

i. that have been received
ii. for which an agreement has been reached
iii. for which an agreement has not yet been reached
iv. that have been resolved
v. that have gone to mediation or referred

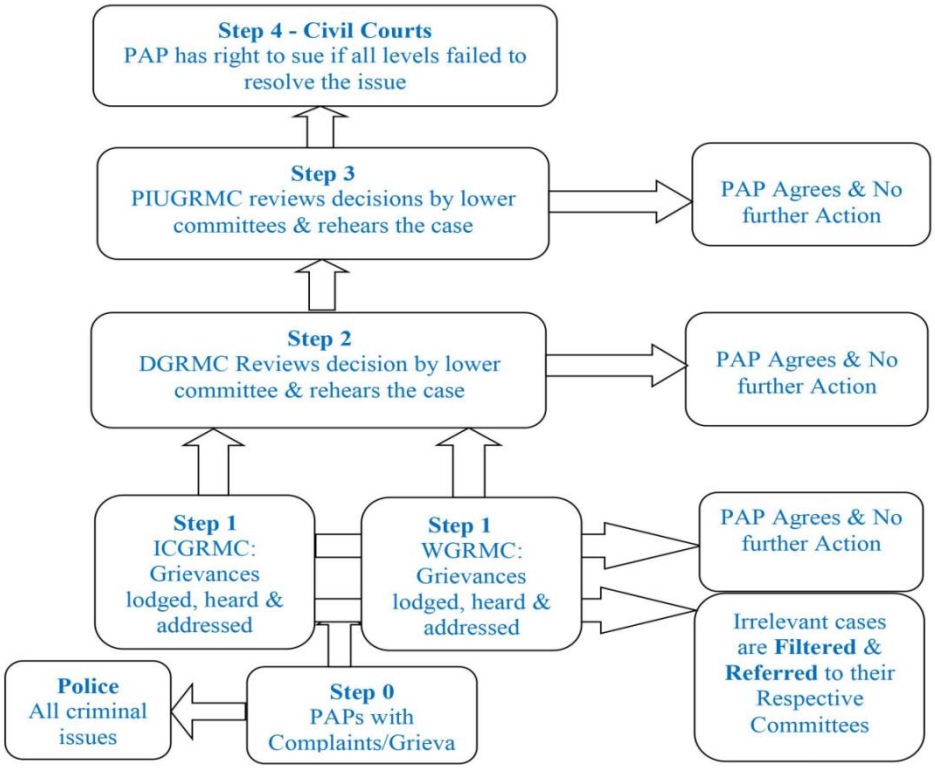
The information provided in the database is expected to help the project team to improve the grievance redress mechanism and to better understand how to address adverse impacts of the project. Each complaint has an individual reference number that can be tracked and whose recorded actions are complete. The grievance registry contains a record of the person responsible for the complaint and has dates for the following events:

i. The date the complaint was reported;
ii. The date of and information on proposed corrective action sent to the complainant (if appropriate);
iii. The date the complaint was closed out; and
iv. The date the response was sent to the complainant or referred

H. Information Flow and Feedback Timelines

Information flow follows a sequential process to ensure accountability and traceability. Complaints are recorded in a GRM register with a unique reference number, acknowledged within 72 hours, and investigated promptly. Findings are communicated to the complainant verbally and/or in writing, within **14 days** of receipt. All cases are tracked until closure and unresolved matters are escalated through the reporting hierarchy as illustrated in **Figure 1**.

Figure 1: Grievance Redress Mechanism (GRM) Process Flow



I. Awareness-Raising and Accessibility

The success of the Grievance Redress Mechanism depends on how well it is understood by its users. In addition to the ESMP disclosure notice, there are awareness activities targeting students, staff, workers, and the surrounding community, including nearby institutions. The objective is to ensure that all stakeholders know the purpose, process, and benefits of the GRM. New students, staff, and workers receive orientation on the GRM during induction sessions. Community meetings are held quarterly with local leaders and residents to explain the GRM and encourage participation. Information materials such as posters, flyers, and simplified guides are distributed in local languages and English. These are placed on notice boards, in public spaces, and at key access points in the colleges. Digital platforms, including WhatsApp groups, college social media, and email lists, are also used to reach wider audiences quickly and cost-effectively. Workers and contractors will receive GRM briefings through toolbox talks and labour compliance meetings. This will help address workplace concerns before they escalate.

In Mzuzu, awareness campaigns leverage municipal notice boards, markets, bus terminals, and college facilities. In Livingstonia, announcements are made during community and church gatherings. Notices are also displayed at the hospital, university, and secondary school.

Once construction commences, both colleges will:

- Conduct worker inductions on GRM procedures.
- Continue to distribute posters and leaflets in English and local languages.
- Continue to hold periodic sensitisation meetings with staff, students, contractors, and community members.

J. Contacts for GRM :

i. **MZUZU TECHNICAL COLLEGE CAMPUS:**

[redacted]

ii. **LIVINGSTONIA TECHNICAL COLLEGE CAMPUS:**

[redacted]

APPENDICES

Appendix 1: Template for Contractor Environmental and Social Management Plan (CESMP)

A Contractor Environmental and Social Management Plan (CESMP) is a document which is prepared by a Contractor to ensure that the construction works are conducted in a sustainable manner. The main objective of a CESMP is to:

- Outline potential environmental impacts and the mitigation measures as described in the ESMP
- Specify the roles and responsibilities of project staff involved in all aspects of the construction works;
- Outline steps for checking compliance (audits procedures)
- State monitoring and inspection programs during construction phase; and
- Specify training/sensitization meetings schedules for the project workers on environmental best practices

The CESMP should contain detailed sub management plans for key issues that apply to routine construction activities, the monitoring activities for sensitive receptors and the required training and communication protocols to be followed. It is the responsibility of the client to ensure that the contractor is proactively following its CESMP. Below can be considered as a generic example of the structure of the CESMP which the contractor for the proposed project can use to develop its CESMP.

Introduction

The introduction sets the stage for the report, detailing information on the project, its need and objectives. This section should also include information on the respective ESMP report summarizing its findings and communicate the Legislative framework applicable to the project.

Brief Project Description

This chapter provides the project specific and here the contractor should specify details about the project. The details must include the entire scope of work and respective resources required to deliver the project.

Policy, Legislation Framework and Standards

This section of the CESMP Report sets out the detailed legislative, policy and administrative framework, regarding environmental and social safeguard requirements, applicable to construction activities and works. This section may also include national and international regulations and requirements, including client and the contractor's policies.

Environmental Risk and Mitigation Measures

This section should include the identification of environmental and social risks associated with the construction activities and provide specific instructions for implementation of the mitigation measures.

Monitoring Program

This section should include monitoring requirements for the construction activities and related monitoring program. It should describe the specific monitoring procedures and tools (checklists, forms, etc.) to be used by the contractor's staff, including subcontractors.

Training Program

This section should include the training needs for the construction activities and the general content of related training program(s). These may include Induction Training to all its workers.

Grievance Redress Mechanism

This section should describe the internal and external grievance mechanism developed by Contractor to record and respond to any concerns raised by workers and local affected communities.

Environmental Auditing

This section must include an environmental audit program defined to address both internal and external audit requirements for the construction activities, including who is responsible for undertaking the audits, the frequency, the mechanism for reporting the results, and the management of corrective actions.

Environmental Reporting

Reporting requirements (monitoring, environmental incidents, non-compliance, corrective action auditing etc.) and the related frequency and recipients should be provided in this section.

Environmental Sub Plans for Construction

The environment sub-plans are detailed issue-based management plans that aid in the proper implementation of mitigation measures. These sub-plans should be referred to by the project workers at any time to understand their operating procedures. The sub-plans should be part of the appendix for CESMP.

Appendices

The appendices may be used to communicate all supporting information needed. These may include data tables, template forms and sub-plans such as: Labour Management Plan (LMP),

Gender Based Violence Management Plan (GBVMP), Child Protection Management Plan (CPMP) and Traffic Management Plan (TMP).Workers Grievance Redress Mechanism (WGRM), Code of Conduct (CoC), COVID19 Construction Sites Prevention Guidelines, Labour Management Plan (LMP), Grievance Redress Mechanism (GRM), Waste Management Plan (WMP), Occupational Health and Safety Management Plan (OHSMP) and Environmental Social Commitment Plan (ESCP), which should be signed by all workers under this project, written in both Chichewa and English languages

Appendix 2: ESS Screening Form and report for the LTC and MTC Projects respectively

Environmental and Social Screening Form for Screening of Potential Environmental and Social Impacts of SAVE activities

Government of the Republic of Malawi

Ministry of Education, Science and Technology

Skills for a Vibrant Economy (SAVE) Project

Environmental & Social Screening Form

Guidelines: Site inspection of project site. The evaluation results to be a consensus of at least three officials.

Project Name: LIVINGSTONIA TECHNICAL SAVE PROJECT	District.: RUMPHI
Project Location: LIVINGSTONIA - RUMPHI	Nature/Size CONSTRUCTION + RENOVATIONS (3Ha)
Name & Signature of Evaluator: Gift Nyirenda	Date of Field Evaluation 10/09/2022

		Appraisal	Stage of EHS potential impact/risk/issue		Significance	Potential Mitigation Measures
		Yes / No	Construction	Operation	Low, medium, high	
1.0	Environmental Screening					
	Will the project generate the following impacts					
1.1	Loss of trees/ vegetation/ biodiversity	✓	✓		✓	plant 500 trees
1.2	Soil erosion/siltation in the area	✓	✓		✓	plant Kapinga grass 0.5Ha
1.3	Pollution to land- diesel ,oils	✗				
1.4	Dust emissions and increased particulate matter	✓	✓		✓	watering in dry season workers wearing masks
1.5	Solid waste generation	✗				
1.6	Liquid wastes and waste water generation	✗				
1.7	Introduction of hazardous chemicals and wastes	✗				

1.8	Borrow pits and pools of stagnant water	✗				
1.9	Rubble/heaps of excavated soils	✓	✓		✓	Levelling / Land Scaping.
1.10	Invasive tree species	✗				
1.11	Long term depletion of water	✗				
1.12	Reduced flow of water sources	✗				
1.13	Nuisance from noise and vibrations	✓	✓		✓	Regular Machine Servicing
1.14	Loss of soil fertility	✗				
1.15	Incidence of flooding	✗				
1.16	Increased Energy use	✗				
1.17	Increased demand and/or portable water use	✗				
1.18	Increase emergence of man-made and natural disasters e.g. fires etc.	✗				
2.0	Cultural, Social and Economic Screening					
	Will the project generate the following negative social and economic impacts?					
2.1	Loss of land to households	✗				
2.2	Loss of properties – houses, structures	✗				
2.3	Loss trees, fruit trees by households	✗				
2.4	Loss of crops by people	✗				
2.5	Loss of access to river/forests/grazing area	✗				
2.6	Impact cultural site, graveyard land	✗				
2.7	Conflicts over use of local water resources	✗				
2.8	Disruption of important pathways, roads	✗				
2.9	Loss communal facilities –churches	✗				
2.10	Loss of livelihood system	✗				
2.11	Blockages to footpath/roads	✗				

2.12	Bring resettlement issues	x				
2.13	Spread of HIV/AIDS and other STIs	✓	✓		✓	Sensitization Provide Condoms.
2.14	Spread of Covid-19	✓	✓		✓	Follow Covid Control measures
2.15	Occupational safety and health issues	✓	✓		✓	Site Hoarding Use PPEs
2.16	Increase exposure of Hazardous chemicals and wastes	x				
2.17	Safety issues with respect to poor building designs	x				
2.18	Exclude other users especially disabled and vulnerable with respect to poor building designs	x				
2.19	Increased GBV and SEA	✓	✓		✓	Sensitization
2.20	Increased violence against children					Code of conduct for the Contractor

Overall evaluation of Screening Exercises.

The results of the screening process would be either the proposed sub - projects would be exempted or subjected to further environmental and resettlement assessments. The basis of these options is listed in the table below:

Review of Environmental Screening	Tick	Review of Social and Economic Screening	Tick
1. The project is cleared. No serious impacts. (When all scores are "No" in form)), though the bids/contracts still would have standard EHS clauses	✓	1.The project is cleared. No serious social and economic impacts, (Where scores are all "No", "few" in form) though the bids/contracts still would have standard clauses on addressing emerging social and economic issues	✓
2. There is need for further assessment -ESMP or ESIA (when some score are "Yes, High" in form), as determined by MEPA		2.There is need for resettlement/ compensation. (When some score are "Yes, High" in form) including need for ESMP or ESIA as determined by MEPA	x
Approval by Environmental officer/		**Approval by Director of Planning and Development**	
Name: Gift S[illegible]enda		Name: BLESSINGS KANY ANGALE	
Signature [signature] Date 10/09/2022		Signature [signature] Date 10/09/2022	

THE DISTRICT FORESTRY OFFICER
P.O. BOX 40
RUMPHI

NOTES:

1. The DPD shall ensure that a completed form is filed within project file immediately after endorsement. Environmental Officer may keep a duplicate.
2. Project Management Committee will maintain a copy of completed form
3. It is the duty of Director of Planning and Development and Environmental Officer to ensure mitigation measures outlined in form are implemented.
4. An Environmental Officer shall prepare a monthly monitoring report on implementation of mitigation measures.
5. The mitigation measures shall be sourced from expert knowledge, stakeholder consultations, EHS guidelines etc.
6. The bids/contracts still would have standard EHS clauses
7. The screening form will be updated prior to use, to reflect a more final set of EHS potential impacts/risks/issues

Environmental and Social Screening Form for Screening of Potential Environmental and Social Impacts of SAVE activities

Government of the Republic of Malawi

Ministry of Education, Science and Technology

Skills for a Vibrant Economy (SAVE) Project

Environmental & Social Screening Form

Guidelines: Site inspection of project site. The evaluation results to be a consensus of at least three officials.

Project Name: Construction of two store building	District.: MZIMBA
Project Location: 3 Rehabilitation of Auto-Mobile Mzuzu TECHNICAL	Nature/Size CONSTRUCTION
Name & Signature of Evaluators M. MBINGWA	Date of Field Evaluation 04/01/2023

YOTAM MTAFYA, MAYNESS THEU, EUCLID TEMBO, KONDWANI SOKO

		Appraisal	Stage of EHS potential impact/risk/issue		Significance	Potential Mitigation Measures
		Yes / No	Construction	Operation	Low, medium, high	
1.0	Environmental Screening					
	Will the project generate the following impacts					
1.1	Loss of trees/ vegetation/ biodiversity	✓	✓		✓	o Plant 10 trees for tree cut o Proper landscaping o use of metal scaffold
1.2	Soil erosion/siltation in the area	✓	✓		✓	o Landscaping
1.3	Pollution to land- diesel ,oils	✓	✓		✓	o regular maintenance of equipment o proper waste disposal
1.4	Dust emissions and increased particulate matter	✓	✓		✓	o Spray water o use PPEs o hoard/fence
1.5	Solid waste generation	✓	✓	✓	✓	o dustbin o dispose of city waste mgt facility
1.6	Liquid wastes and waste water generation	✓	✓	✓	✓	o use latrine o proper waste disposal
1.7	Introduction of hazardous chemicals and wastes	✓	✓	✓	✓	o sensitization o proper waste disposal

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MZIMBA DISTRICT COUNCIL
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		Yes/no	Construction	operation	Low/medium/high mitigation	Mitigation Measure
1.8	Borrow pits and pools of stagnant water	✓				o Back filling
1.9	Rubble/heaps of excavated soils	✓ ✓	✓		✓	o Landscaping
1.10	Invasive tree species					
1.11	Long term depletion of water	✓				
1.12	Reduced flow of water sources	✓				
1.13	Nuisance from noise and vibrations	✓	✓	✓	✓	use of ear muffs/defender use of silent equipment
1.14	Loss of soil fertility	✓				
1.15	Incidence of flooding	✓				
1.16	Increased Energy use	✓	✓	✓	✓	o Solar energy o Energy efficient equipment o Efficient water of H_2O
1.17	Increased demand and/or portable water use	✓	✓	✓	✓	
1.18	Increase emergence of man-made and natural disasters e.g. fires etc.	✓	✓	✓	✓	o Sensitization o Proper PPE, fire extinguisher o First Aid Kit o Toolbox talk
2.0	Cultural, Social and Economic Screening					
	Will the project generate the following negative social and economic impacts?					
2.1	Loss of land to households	✓				
2.2	Loss of properties – houses, structures	✓				
2.3	Loss trees, fruit trees by households	✓				
2.4	Loss of crops by people	✓				
2.5	Loss of access to river/forests/grazing area	✓				
2.6	Impact cultural site, graveyard land	✓				
2.7	Conflicts over use of local water resources	✓				
2.8	Disruption of important pathways, roads	✓				
2.9	Loss communal facilities –churches	✓				
2.10	Loss of livelihood system	✓				
2.11	Blockages to footpath/roads	✓				

DISTRICT COMMISSIONER
DISTRICT COUNCIL
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2.12	Bring resettlement issues		✓			
2.13	Spread of HIV/AIDS and other STIs	✓	✓	✓	✓	◦ Sensitization ◦ Provision of condoms
2.14	Spread of Covid-19	✓	✓	✓	✓	◦ follow Covid19 guidelines
2.15	Occupational safety and health issues	✓	✓	✓	✓	◦ PPEs ◦ Toolbox talk ◦ First Aid kit
2.16	Increase exposure of Hazardous chemicals and wastes	✓	✓	✓	✓	◦ PPEs ◦ proper handling of waste ◦ Toolbox talk ◦ First Aid Kit
2.17	Safety issues with respect to poor building designs	✓	✓	✓	✓	◦ Designs should be approved by town + County Planning Committee
2.18	Exclude other users especially disabled and vulnerable with respect to poor building designs	✓	✓	✓	✓	◦ Supervise + monitor construction works ◦ Designs should be user friendly to all groups
2.19	Increased GBV and SEA	✓	✓	✓	✓	◦ Sensitization ◦ GRM Committee
2.20	Increased violence against children	✓	✓	✓	✓	◦ Follow child labour Policy ◦ Use network ID on recruitment ◦ Hoard/barricade and put warning signs

Overall evaluation of Screening Exercises.

The results of the screening process would be either the proposed sub - projects would be exempted or subjected to further environmental and resettlement assessments. The basis of these options is listed in the table below:

Review of Environmental Screening	Tick	Review of Social and Economic Screening	Tick
1. The project is cleared. No serious impacts. (When all scores are "No" in form)), though the bids/contracts still would have standard EHS clauses		1.The project is cleared. No serious social and economic impacts, (Where scores are all "No", "few" in form) though the bids/contracts still would have standard clauses on addressing emerging social and economic issues	✓
2. There is need for further assessment -ESMP or ESIA (when some score are "Yes, High" in form), as determined by MEPA	ESMP	2.There is need for resettlement/ compensation. (When some score are "Yes, High" in form) including need for ESMP or ESIA as determined by MEPA	NO
Approval by Environmental officer/		**Approval by Director of Planning and Development**	
Name: James Pelani		Name: Walter Chilumi	
Signature Pelani Date 4th Jan 2023		Signature Date 4/1/23	

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MPIKA DISTRICT COUNCIL
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SCREENING REPORT ON ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREENING EXCERCISE FOR THE PROPOSED CONSTRUCTION OF A TWO STOREY BUILDING AND REHABILITATION OF AUTOMOBILE WORKSHOP FOR MZUZU TECHNICAL COLLEGE

1.0. Introduction and Background

The Government of Malawi through the Ministries of Education and Labour is implementing a project funded by the World Bank-International Development Association (IDA) with a resource facility of US$100 million for a period of 5 years. The project aims to improve access to market-relevant skills programs in priority areas of the economy, ensuring equity in skills training with empowerment of women and girls and vulnerable youth through targeted skills. It will be creating a conducive environment, strengthening systems and boost institutional capacity for skills development, centering on: Technical, Entrepreneurial, and Vocational Education and Training (TEVET), Digital technology Capacity Building, and Technical Assistance among other systemic issues.

The project consists of 4 Components of which Mzuzu Technical College (MTC) falls under **Component 2** that focuses on supporting Technical, Entrepreneurial, and Vocational Education and Training to increase equitable access to market relevant skills development;

In this subcomponent, SAVE project will be supporting performance based IDPs of the seven public NTCs which represent the cornerstones of Malawi's formal TEVET space, especially at higher qualification levels. The average financing for each NTC is expected to be US$1–1.5 million, based on the agreed-upon IDP and financed upon the achievement of defined targets in the PAs. The IDPs will focus on increasing the intake capacity; improving the quality of training through teacher training. The supported NTCs are expected to double their annual intake to formal regular TEVET programs.

This Financing will support the building and rehabilitating of training infrastructure, the acquisition of equipment, and the purchase of teaching and learning materials. Digital infrastructure enhancements at the institutions will also be supported along with the development of effective employment promotion services. All investments under the project will adhere to the current environmental standards and will support energy-efficient and eco-friendly facilities. Implementation for activities under this sub-component will be supported by the Project Implementation Unit (PIU) which will perform procurement, financial management and environmental and social safeguards duties for NTCs to implement their IDPs and achievement of their PAs.

One of the key activities in this project for MTC is the construction of a two-storey building and the rehabilitation of automobile workshop. MTC intends to construct this two-storey building that will house two workshops, two classrooms, ICT Lab and ODel Studio, (referred to in this Project Brief as a proposed project) the project is expected to cover on 800 square meters of land at MTC campus, in Mzuzu city. The implementation of building structures may lead to some negative environmental and social impacts which need to be well managed. These need to be pre-assessed, analysed and mitigation measures incorporated in the investment activities, through the process of Environmental and Social Impact Assessment.

Construction is planned to commence in July, 2023. The construction will be done for a period of 24 months. The major construction materials shall be; cement blocks, steel, quarry stones, cement, inter-locking pavers and sand. The basic materials such as sand and quarry stones are locally available and will not necessitate new production of the materials.

Through the SAVE Project resources, Mzuzu Technical College will;

a) Increase intake of females for programs in priority areas of the economy.

b) Enable Industry engagement to increase employability of graduates through signing of MoUs with companies.

c) Introduction of welding and fabrication and training students using ODel Blended learning in selected programs.

d) Rehabilitation of Auto mobile workshop.

The proposed site is within the Mzuzu Technical College premise, the site lies adjacent to Automobile mechanics workshop. The screening team observed that no trees will be affected by the project activities. However, within the proposed site there is vegetative cover and shrubs which will be removed. The total land size to be used for construction is currently estimated to 800 square meters. It is worth noting that the developer, MTC, indicated that the site is within the land which the college legally owns hence there are no any anticipated land conflicts issues that may arise, furthermore, the operations will wait for the ESMP to be developed.

Figure 1: Proposed construction site

In line with the Environment Management Act of 2019 and Guidelines for Environmental and Social Management Plan in Malawi, the district environmental officer assisted to undertake an environmental and social screening of the proposed construction site on 04th January, 2023. The purpose of the exercise was to identify and evaluate potential environmental and social impacts of the proposed construction activities by taking into account issues such as the type and scale of the project, the nature and magnitude of the potential environmental and social risks and impacts, the environmental and social sensitivity of the project location and the capacity of local communities to manage the environmental and social risks and impacts in a manner consistent with the national environmental legislation.

1. Approach and Methodology

The focus of the screening exercise was to undertake initial scoping of potential environmental and social impacts of the proposed two storey building construction as well as the rehabilitation of the automobile mechanics workshop. and determine the type of environmental and social assessment to be conducted by project Proponent. In order to achieve these targets, the following methodology was employed:

1.1. Step 1: Reconnaissance field surveys of the project proposed site

Field survey, involving Mzuzu City and Mbelwa district Council environmental and Social Safeguards Officer and MTC officers was conducted. The objective of the site survey was for the team to ground truth the identified project site location. The survey also aimed at identifying the environmental and social setting of the area which is key in identification of project related impacts and their enhancement and mitigation measures.

Figure 2: vegetation observed on project site

2. Identifies Positive and Negative Impacts of the Construction Site

3.1 Potential Beneficial Socio-Economic Impacts the projects

In line with the objectives of the SAVE project its associated infrastructure activities at MTC, it is expected that significantly beneficial socio-economic impacts will be derived from the project as follows:

- The Construction project will provide employment opportunities to local people through recruitment as machine operators, labourers, security officers e.t.c;
- The project will result in promotion of skills and knowledge for Skilled and unskilled labor force through on job trainings;
- The project will enhance creation of business opportunities.

3.2 Potential Negative Impacts associated with the project

Significant negative environmental and social impacts would emanate from the construction project. These include:

- Clearing land for the construction of a two Storey building may result in loss of trees and vegetation;
- Soil erosion resulting from increased surface runoff due to excavation activities and civil works associated with the construction activities;
- Increase in generation of particulate matters (especially dust) during excavation.
- Increase in the prevalence rate of HIV and AIDS, Covid-19 and other communicable diseases in the area as a result of increased incidents of interaction between workers, students and the community nearby;
- Aesthetic change of the nature topography;
- Degradation of surface and groundwater quality from pollution due to oil spills from construction vehicles and poor liquid waste management;
- Noise pollution from machinery, blasting and crusher;

- Population influx due to increase in migrant workers to the project site;
- Risk of public safety and injuries to students due to over speeding of construction vehicles;
- Risk of child labour;
- Risk of infrastructure damages for the adjacent and surrounding communities due to increased ground vibration;
- Sexual harassment; women being forced to have sex with project staff in exchange for employment and workers abusing young girls from surrounding communities;
- Marginalization of women and other vulnerable groups in the selection of employees by the contractor where employment opportunities are not offered on a fair and equitable basis; and
- Increase generation of nonhazardous and hazardous liquid and solid waste.

4. Outcomes of the Screening exercise

From the screening exercise, the following was taken note of:

The construction, rehabilitation and operation of the two buildings is expected to give rise to environmental and social impacts that the developer is expected to manage. Presented here are a number of major positive and negative impacts and their enhancement/mitigation measures.

2.1 Positive Impacts

The proposed project is expected to have the following positive impacts:

a) Increased government revenue sources through various taxes during purchases of construction materials.

Proposed enhancement measure:

- Timely payment of the necessary taxes to government.

b) Creation of job opportunities

Proposed enhancement measures:

- Where possible maximise employment of people from the surrounding areas both skilled and unskilled labour force;
- Ensure that labour laws and constitutional provisions are respected and observed;
- Adhere to all employment labour laws in Malawi

c) Creation of market for construction material

Proposed enhancement measure (s):

- Procure building materials such as cement, sand, steel angle iron etc. from the local traders;
- Where practicable, procure locally manufactured products over imported materials; and
- Outsource certain services from local contractors and suppliers whenever possible.

2.2 Negative impacts and their mitigation measures

There are several potential negative impacts associated with the proposed project. Most of the potential negative impacts are anticipated during the construction phase and some in operation phase. The negative impacts can easily be mitigated as follows:

a) ***Increased air pollution as a result of dust particles emanating from earth works and construction activities***

Proposed Mitigation Measure(s):

- Sprinkling water on areas to be excavated to reduce dust emissions;
- Set speed limit of 20km/hrs

b) *Generation of solid waste*

Proposed Mitigation Measure(s):

- General waste will be collected and properly damped by the institution as it is usually done. The contractor working on site will be responsible for proper disposal of wastes from construction activities to city waste disposal facilities;
- Adequate number of waste receptacles for general waste shall be provided at points around the site, and a single collection point for hazardous waste.

c) *Noise nuisance and pollution*

Proposed Mitigation Measure(s):

- Barricading the area (erecting a boundary wall);
- Construction activities to be conducted during the day (7:00 – 17:00 hrs.);
- Provision of appropriate Personal Protective Equipment (PPE) to protect workers from noise; Workers can be provided with noise muffs as PPE.
- Regular maintenance of plants and equipment; and
- Shutting down of engine vehicles when not in use to reduce on noise levels.
- Use of efficient technologies

d) *Vibrations;*

Proposed Mitigation Measure(s):

- Use sizeable equipment as per best practices

e) ***Increased Risk of Soil Erosion***

Proposed mitigation measure(s):

- Limit clearing of vegetation to the areas that will be directly affected by the construction
- Construct proper drainage system where necessary.
- Avoid excavations and soil disturbance during rainy season.
- Back fill all excavations immediately at the end of activity.
- Ensure bare and disturbed areas are revegetated.

f) ***Increased degradation of other sensitive ecosystems:***

Proposed mitigation measures

- Limit clearing of vegetation to the areas that will be directly affected by the construction
- Replanting trees and vegetation after construction activities
- Building materials for the structures should be as recommended by National Construction Industry Council (NCIC) e.g. use of cement blocks and steel

g) ***Increased Generation of waste****:*

Proposed mitigation measures:

- Store waste in designated locations before final disposal at appropriate sites agreed with local authorities

- The oil should be stored in tanks and drums as hazardous waste and disposed off in an approved manner
- Spill trays should be provided and used where appropriate
- Reuse wastes where applicable such as land filling.
- Provision of bins- with separation at source concept

h) ***Increased Risk of Spread of HIV/AIDS and other STIs****:*

Proposed mitigation measures:

- Conduct sensitization meetings on HIV/AIDS and STIs to workers, staff and students, including how to prevent these.
- Having regular sensitization meetings
- Provide VCT services

i) ***Increased Risk of Spread of COVID- 19***

Proposed mitigation measures:

- Conduct sensitization meetings on COVID-19 prevention to workers, staff and students in line with recommended guidelines.
- Provide equipment to enhance hygiene such as water for washing hands, soap and sanitizers at all time in the work environment and or institution premises
- Ensure social distancing is observed among workers

j) ***Traffic Disruption****:*

Proposed mitigation measures:

- Restrict speed limits to 20km per hour within construction premises

- Install and observe road signs

k) ***Occupational Health and Safety Risks****:*

Proposed mitigation measures:

- Provide personal protective equipment (PPE) first aid kits
- Conduct on site trainings to workers on Health and Safety
- Installation of signage
- Ensure proper code of conduct through toolbox talk and work permits
- Provide safe scaffolding equipment

l) ***Public Safety Risks***

Proposed mitigation measures:

- Contractors to put safety tape around all excavations on the construction site
- Conduct sensitization meetings to workers and the surrounding communities
- Install signage to limit access

m) ***Water Pollution****:*

Proposed mitigation measures:

- Contractor shall construct the necessary and adequate sanitary facilities to prevent pollution
- Contractor shall dispose of collected waste water in the manner agreed with the council
- The oil should be stored in tanks and drums as hazardous waste and disposed off in an approved manner

- Spill trays should be provided and used where appropriate

n) ***Increase in Gender Based Violence****:*

Proposed Mitigation Measures:

- Conduct sensitizations on Gender Based Violence and Sexual harassment,
- Operationalize grievance redress mechanisms
- Promotion of women's employment

o) ***Violence against Children:***

Proposed mitigation measures:

- Avoid employing under aged (less than 18 years) workers
- Learners should not be engaged in any construction related activities
- Conduct sensitizations to communities, school committees and learners on violence against children

p) ***Increase in Theft Cases****:*

Proposed Mitigation Measures:

- Conduct sensitization meetings targeting workers
- Empower and utilize community policing
- Encouraging various stake holders to tip-off relevant authorities when suspicious plasticines are taking place.

q) ***Risk of exposure to hazardous materials and wastes:***

Proposed Mitigation measures:

- Avoid procurement and minimize use of hazardous materials by substituting with non-hazardous alternatives.
- Ensure indoor secure storage and sealed containers rather than loose storage of hazardous materials
- Prevent uncontrolled releases of hazardous materials to the environment e.g. paint, oils etc.
- Communicate and train workers to recognize and respond to workplace chemical hazards.
- Involve waste management authorities for safe disposal of hazardous wastes.

5.0. Recommendations and Way forward

The following key issues are recommended to be done before and in the course of the ESMP development:

- Mzuzu Technical College to develop a stakeholder engagement plan and ensure all the stakeholders are consulted and are involved in the project development. The following stakeholders should be consulted;
    - Local leadership – Traditional Authority and Chiefs
    - Mzuzu City Council
    - Mzuzu Technical College staff management team
    - Students union leaders
    - Area Development Committee (ADC)
    - Mzuzu City Physical development planning committee
    - Mbelwa District Council Environmental Subcommittee (DESC)

6.0. Conclusion

Having successfully undertaken the environmental and social Safeguards screening on the proposed construction site, we have made a recommendation basing on the Guidelines for Environmental Impact Assessment in Malawi of 1997 and screening visit which was conducted on 4th January, 2023. Client is advised to submit a project brief to EAD (MEPA) so that Environmental Affairs Department can further inform the developer on the prescription of the type of environmental and social assessment to be conducted for the project and the TORs to be used in the assessments

Appendix 3: Livingstonia and Mzuzu Technical Colleges Full Project Scopes

a. Livingstonia Technical College Project Scope

Brief Details of the Proposed Construction Works -

(a) Two workshops

(i) Electrical Installation and Electronics

- 60 no. student working space split into two workshop rooms
- Two staff offices
- Two storage rooms
- Toilets (male and female)
- Showers and washing basins
- Roof covering to at least include minimum of two transparent sheets
- Access to physically challenged
- 3 phase power supply

(ii) Plumbing workshop

- 60 no. student working space split into two workshop rooms
- Two staff offices
- Two storage rooms
- Toilets (male and female)
- Showers and washing basins
- Roof covering to include at least include minimum of two transparent sheets
- Access for the physically challenged
- 3-phase power supply

(c) 4no. Classrooms

- 30no. Student space per classroom
- Two classrooms on top of each workshop

- One store room
- White boards
- Access to physically challenged
- Furniture

(d) 2no. ICT Laboratories

- 30no. student space per room
- Server room
- Technician office
- Lecturer's office
- Store room
- Female and Male Toilets
- Access to physically challenged

2.2 Brief Details of the Proposed Construction Works - Mzuzu Technical College

(a) Construction of a 2-Storey Building

Ground floor

Plumbing workshop

- 30 no. student working space
- Two staff offices
- Two storage rooms
- Toilets (male and female)
- Showers and washing basins
- Access for the physically challenged
- 3-phase power supply

Fabrication and Welding workshop

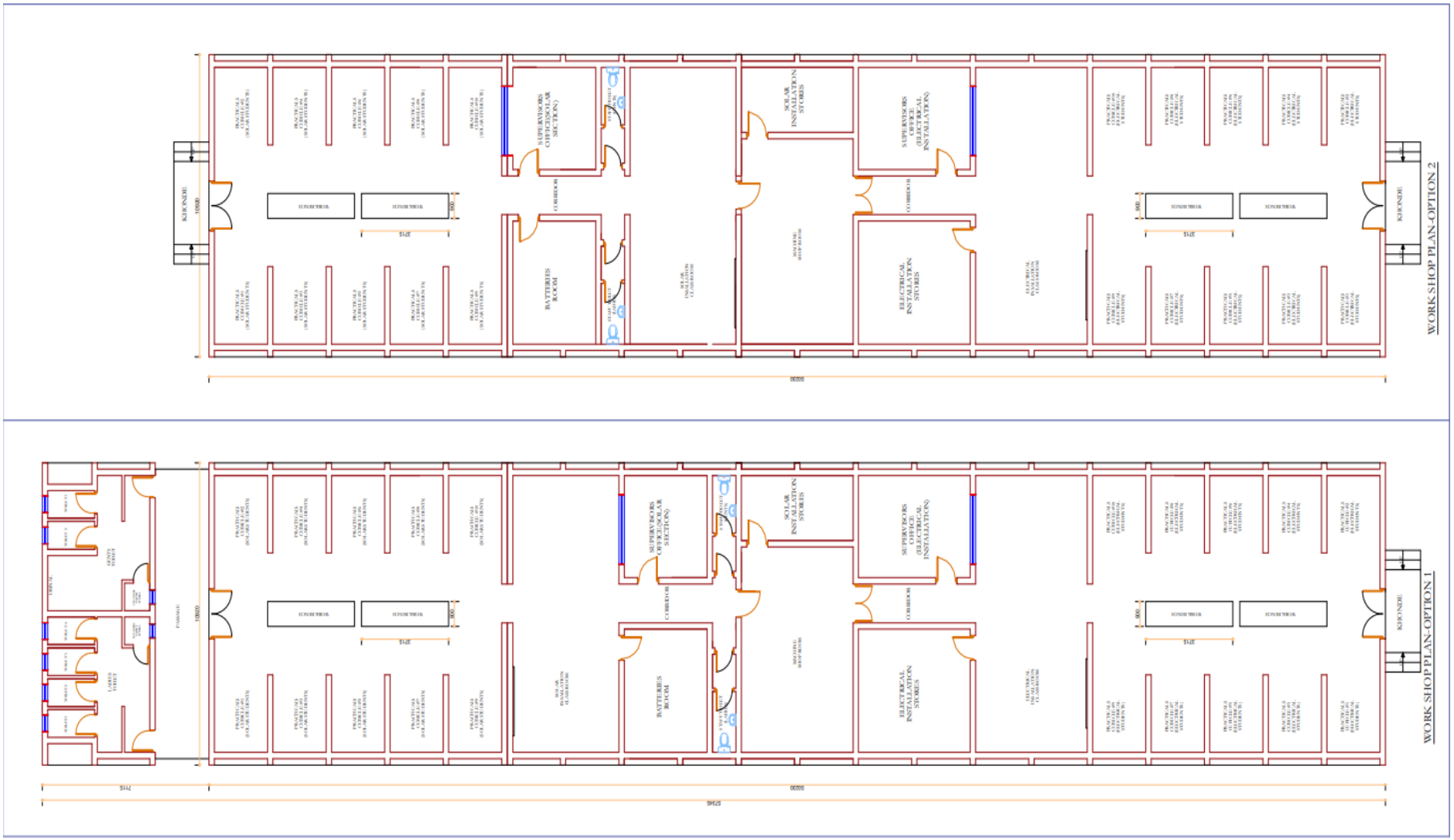
- 30no. student working space
- Fume Extractor

- Manifold system
- 2 Cylinder rooms
- Two staff offices
- Two storage rooms
- Toilets (male and female)
- Showers and washing basins
- Access for the physically challenged
- 3-phase power supply
- Electrical & Solar installation stores
- Solar battery room

2no. Classrooms

- 30no. Student space per classroom
- One store room
- Lecturer's Office
- Whiteboards
- Access to the physically challenged
- Furniture

Sketch drawing below



1st Floor

1no. ICT Laboratory

- 50no. student space
- Server room
- Technician office
- Lecturer's office
- Store room
- Female and Male Toilets
- Access to physically challenged

2no. Classrooms

- 30no. student space per classroom
- One store room
- Lecturer's Office
- White boards
- Access to physically challenged
- Furniture

Rehabilitation of 1no. Automobile Mechanics Workshop

(to be assessed by EIMU)

Appendix 4: Occupational Health and Safety Management Plan (OHSMP)

a. Introduction and Objective of the Occupational Health & Safety Management Plan

To achieve healthy and safe working conditions, it is necessary to ensure that health and safety issues are planned, organized, controlled, monitored and reviewed. This plan outlines safety programs which need to be implemented during planning, construction and decommission stages. A Health and Safety Management plan outlines how the project proponent and contractor(s) will put in place the necessary procedures, practices and mechanisms to address health and safety issues workplace. The plan is aimed at guiding the management of potential health and safety issues arising from the project activities.

This plan should be implemented in line with the provisions of the Public Health (Corona virus and Covid-19) Prevention, Containment and Management Rules of 2020, National HIV and AIDS Policy (2012), The Occupational Safety Health and Welfare Act (1997), The Employment Act, 1999, Workers Compensation Act, 2000, Public Health Act 1948, (Amended, 1992) and Environment Management Act (EMA, 2017)

b. Implementation of Management Measures

The detailed measures to ensure health and safety during project implementation should be as follows:

i. Construction site Safety and Security

The contractor should ensure safety to the sites through:

- Planning on having designated passages for heavy vehicles that will be prohibited to pedestrians, and where necessary provide separate doors or gates to achieve this segregation;
- Passageways for pedestrians and vehicles within and outside working premises would be segregated and provide for easy, safe, and appropriate access;
- Provide measures to prevent unauthorized access to dangerous areas;
- Ensure there that vehicles loading and offloading areas or bays are restricted areas;
- Ensure that there is proper signage installed as part of hazard awareness in order to avoid accidents;
- Ensuring that construction site hoarding fences are provided;
- Ensure that appropriate safety signage is provided for in all risky areas;

- The contractor to ensure that tasks-based risks assessments are undertaken; and
- Use of breathalysers site entrance to monitor worker's alcohol content to avoid accidents that may arise due to working while drunk.
- Ensure that all workers sign code of conduct (health and safety provisions) as part of the employment contract
- Ensure all workers have required PPE and use of PPE will not be a substitute of control measures as per mitigation hierarchy
- The contractor should perform risk assessment at commencement of the construct phase, prepare risk register and identify measures to reduce the risk to acceptable level. The risk register should be updated from time to time
- The contractor will ensure that all workers are provided with required PPE and no workers are allowed to work without PPE
- The contractor will prepare Code of Conduct with clauses on health and safety and all workers are required to sign it as part of employment contract

ii. Site Induction and training

Site inductions should be carried out by the contractor. The site induction is a proactive measure that prevent an accident at the site. Contractor will ensure that the following arrangements for site inductions for project are in place:

- Ensure new workers are briefed on the site safety rules including the site logistics plan, hazards, evacuation procedures, colour coding, emergency and first aid procedures (identity of first aider, location of first aid kit and first aid room), and the duties and responsibilities of all persons on site
- Ensure visitors should be given a brief site induction (based on an either oral or written Visitor's induction) and should be accompanied at all times during their visit to the site
- Ensure that all visitors are given the right Personal Protective Equipment before accessing to the site
- Ensure that workers carrying out safety critical tasks have the necessary qualifications and/or on the job training for the tasks they carry out
- Induction should cover at least the following items:

Welfare

The contractor should inform the workers the welfare services offered.

Sanitation facilities

Everyone who works on any site must have access to adequate toilet and washing facilities. The sanitation facilities should be sufficient for everybody who is working on the site.

Access to Sanitary Conveniences

The numbers of toilets required may depend on the number of people working on the site. Men and women should have different toilets however, wherever men and women use the same toilet, it should be in a separate room with a door that can be locked from the inside. Toilets are supposed to be a flushed by water and connected to the main drainage system. Where flush toilets are provided, women toilets should be having menstrual bins provided. However, in circumstance where this is not applicable, a mobile hygiene latrine with built in tanks may be used. A washbasin with water, soap and towels or dryers should be located close to the toilets. All sanitary facilities shall be cleaned daily and at least twice during working hours.

Drinking water

Drinking water: The contractor shall ensure workers have access to safe and potable water by doing the following

- Ensure provision of safe drinking water where possible. Where water supply is available, provide tap drinking water. Water storage tank or bottles may be used where water supply is not available. The water storage tanks should be covered to prevent any contamination or pollution. If neither of the option is available, the contractor should select the boreholes from (approved by the competent authority) which safe water will be supplied to the worker camps or site.
- Ensure water quality monitoring of the boreholes is conducted, and the quality needs to be complied with MBS and WHO limit.
- The contractor shall have the responsibility to purify drinking water whenever it does not meet water drinking standards. Contractor should also ensure that the drinking water point is clearly marked in order to avoid confusion between the drinking water supply with other water supplies or other liquids.
- Ensure that water that is unfit to drink should be conspicuously indicated by notices prohibiting workers from drinking it.

Accommodation rooms

The contractor shall ensure the following conditions are adhered at campsite:

- Ensure camp site should have rooms that are well spaced and offers comfort.
- Ensure that the roofs are well constructed and free from leakages. The floor of the rooms/compartments should be constructed with easily cleanable materials.
- Ensure rooms cleaning at regular intervals is required to keep the rooms/compartments in good hygienic condition. The room should be well ventilated and with provision of artificial and natural light.
- Ensure that workers accommodation is provided with sanitary facilities, washing and shower facilities; recreational activities
- Ensure are separated by gender and sharing of rooms should be prohibited by any means. As per international standards more than eight (8) workers should not share a same room/dormitory. The contractor will also ensure that there is store room where workers can put their clothes and other personal belongings.
- Ensure fire detection facilities or alarm system are installed and functional
- Ensure facilities for obtaining or preparing food and drink at construction site are provided

Lighting

All parts of the site that are in use should, as far as possible, be arranged so that natural light is available for people to see to do their work and move about the site safely. If natural light is not adequate artificial light should be used. The contractor should ensure any artificial lighting does not change the apparent colour or visibility of any safety signs or other safety-related items such as fire extinguishers. This may cause accident or fail to recognize material for use. Where emergency routes need artificial light, provide emergency lighting that comes on if the primary lighting fails. Emergency routes such the passageways that people must follow in an emergency to escape from danger should be kept well-lit while there are workers on the site.

Raw material Storage, Waste Disposal and labelling

The contractor of the project should plan how the site will be kept tidy and how housekeeping will be actively managed. The following health and safety aspects at workplace need to be followed and planned for before commencement of project:

- Ensure walkways free of tripping hazards such as trailing cables, building materials and waste. There is need to ensure that all flammable waste materials are cleared away regularly to reduce fire risks;
- Follow the information on Material Safety Data Sheet in order to rightly store the chemicals and dispose of the waste after use;
- Keep inside floor areas clean and dry;
- The contractor should designate storage areas for materials, waste, flammable substances (e.g. foam plastics, flammable liquids and gases such as propane) and hazardous substances;
- The contractor should ensure storage of hazardous/flammable substances: is securely fenced, ventilated, separated from other parts of the site, not near emergency exits, accessible to fire fighters, properly marked/signed and with two escapes routes
- Storage of Highly flammable substances at the construction site should be avoid, if not possible should not exceed 50L and stored in a well-ventilated area
- Do not store materials where they obstruct access routes or where they could interfere with emergency escape;
- Keep all storage areas tidy, whether in the main compound or on the site itself;
- The contractor needs to decide on how the waste stream will be managed to ensure it is timely and effective. The contractor will take the responsibility of collecting waste and ensure are disposed of according to national requirements and international best practice as outlined in the ESMP;
- Ensure hazardous wastes are stored in separate receptacles with proper labelling; and
- Ensure piping systems that contain hazardous substances are labelled with the direction of flow and contents of the pipe, or colour coded whenever the pipe passing through a wall or floor is interrupted by a valve or junction device.

Emergency and Response Plan and Procedure

The contractor should plan emergency procedures before work begins and put general precautions in place from the start of work. Some emergencies may require evacuation of the site or part of the site, while others might involve the rescue of an injured person. The procedure make provision for first aid to when a worker is injured before referred to hospital for further treatment. When planning emergency procedure, the contractor should consider:

- the type of work being done on site such as excavation works;

- the plant and equipment being used which may obstruct emergency route;
- the number of people likely to be present on the site at any one time help to determine escape route;
- the physical and chemical properties of substances or materials on or likely to be on the site;
- Arrangements for treating and recovering injured people are available; and the communication system during emergency.
- Safety message to be used e.g. get out and stay out
- Ensure assembly point is designated and clearly marked
- Conducting emergency drill to test overall effectiveness of the procedures
- Emergency procedures need to be proportionate to risk

Traffic Management Plan

The contractor should use the traffic management plan developed for this project to guide traffic at the construction site are along public roads, or construction works are to be implemented in the public road boundaries to control movement of traffic. The plan will focus on Avoidance of incidents and accidents while construction vehicles public roads. The contractor should consult traffic police and relevant authority regarding traffic management with the construction area.

Fire

At most sites, the most obvious emergency is fire. At construction site fire may rise due to the presence of combustible substances such as solids, liquids and gases. However, many fire incidents can be prevented by careful planning. The contractor should take into consideration the following to prevent the occurrences of fire:

- Ensure that there is good housekeeping and site tidiness
- Ensure that site rules are adhered to by all workers and visitors such as avoiding smoking in non-smoking area
- Ensure that flammable substances, solid, liquid and/ or gases should always be stored separately
- Obtain storage permit for keeping flammables and explosive goods such as fuel

- Restrict work activities involving potential ignition to take place near to any inflammable object within work site, for example use water-based or low-solvent adhesives and paint
- Keep the quantity of flammables at the workplace to a minimum
- Always keep and carry flammable liquids in suitable closed containers
- Check the site at lunch time and at the end of the day to see that all plant and equipment that could cause a fire is turned off
- Ensure that right fire extinguisher is be placed at the right place e.g. water extinguisher for fire burning combustible material such as wood, paper and clothes
- Ensure that fire and emergency alarm systems that are both audible and visible are in place.
- Ensure that fire risk assessment at the campsite is conducted, fire hazards and associated risks identified and control measure (preventive and mitigate actions) to reduce the risks proposed
- Ensure safe means of escape from buildings are provided, well-marked and not obstructed
- Ensure safe assembly point is provided at campsite and free from obstruction

First Aid

First aid can save lives, reduce pain and help an injured person make a quicker recovery. The minimum provision for all sites is:

- A first aid box with enough equipment to cope with the number of workers on site. Ensure that first aid facilities/equipment available and readily accessible including portable equipment for resuscitation and transportation of any causalities.
- An appointed person to take charge of first-aid arrangements;
- Information telling workers the name of the appointed person or first aider and where to find them.
- Ensure workers are aware regarding the identity of first aider, the location of first-aid kits and first aid room and reporting of all injuries and cases of ill-health

The First aid kit should consist of the following:

- Adhesive tape
- Bandages,

- Pair of disposable gloves,
- Scissors,
- Skin rash cream, and antiseptic cream,
- Sticky tape and digital thermometer.
- Tweezers and safety pins,
- Wound cleaning agents.

Remote site should have written emergency procedures in place for dealing with cases of trauma or serious illness up to the point at which patient care can be transferred to an appropriate medical facility. The number of qualified first aiders needed depends on the risk of injury and ill health on site. The first-aid arrangements should cover shift working, night and weekend working where this is carried out. This may mean appointing or training several people to ensure adequate cover.

Personal Protective Equipment

Accidents, noise, hand vibration syndrome and musculoskeletal disorders due to back muscle strain and injuries are some of occupational health risk, which most of the control measures do not always eliminate the risk. Therefore, there is need to ensure that personal protective equipment is provided to workers. The contractor should ensure workers are provided with PPE only where there is a health and safety risk that cannot be adequately controlled by other means. Depending on the nature of activities, workers may be provided the following PPE categories:

Personal Protective Equipment for Site Personnel

Protective Headwear:

- Where there is the exposure of overhead danger from falling small objects, protective headwear must be worn
- Protective headwear will be issued to the required employees.
- Employees are responsible for using their hard hats while working.
- Also, employees must notify their supervisor about a damaged or lost hardhat immediately
- It is recommended to use the double chin strap headwear

Protective Eyewear:

- When there is an exposure to the eyes from flying objects, glare or liquids, protective eyewear is required.
- Protective eyewear is an approved safety eye protector or safety goggle, which meets the standards.

Disposable Dust Masks:

- When there is the potential of exposure to airborne dust or particles, disposable dust masks are required. However, for particulate matter ($PM_{2.5}$) highly efficient masks such as N95, KN95 or FFP2 are recommended.

Protective Gloves:

- When the hands are exposed to a hazard, protective gloves are required. Protective gloves are construction type work gloves and chemical resistive gloves.
- Construction type work gloves are required for, but not limited to, employees that may cut, pinch, hit or burn their hands.
- Chemical resistive gloves are required for, but not limited to, employees that may spill hazardous chemicals or corrosive material onto their hands.

Snake Gaiter:

- In situation where the workers will be working in remote areas and exposed to animal bites such as snakes, or insects it is recommended that workers are provided with snake gaiters.

- The snake gaiter should be of water resistant and one size fit all (adjustable)

Back Supports:

When employees are exposed to heavy lifting or repetitive lifting, back support devices are required. The contractor should also ensure that the following are taken into consideration when providing PPE to the workers:

- Ensure PPE is appropriate for the risks and for the working environment
- Take account of the user's health, ergonomics, fit factors and be compatible with other items of PPE required to be worn
- Ensure PPE adequately control the risk presented by the hazard without increasing overall risk experienced by the worker.
- Be supplied free of charge if supplied for work-related health-and-safety reasons
- Ensure PPE comply with relevant legislation

Accident and Incident Reporting and Investigation

Occurrence of any accident/injury within the work site, including occupational health and diseases, is required to be reported to the Healthy and Safety Officer and properly documented. For fatality and serious injuries accidents or dangerous occurrence should be reported to the client with 24hrs. The Healthy and Safety Officer should investigate using root-cause analysis (RCA) the reported accidents, incidents or dangerous occurrences in order to avoid recurrences. Investigation shall be carried out by coordinated team at worksite in order to:

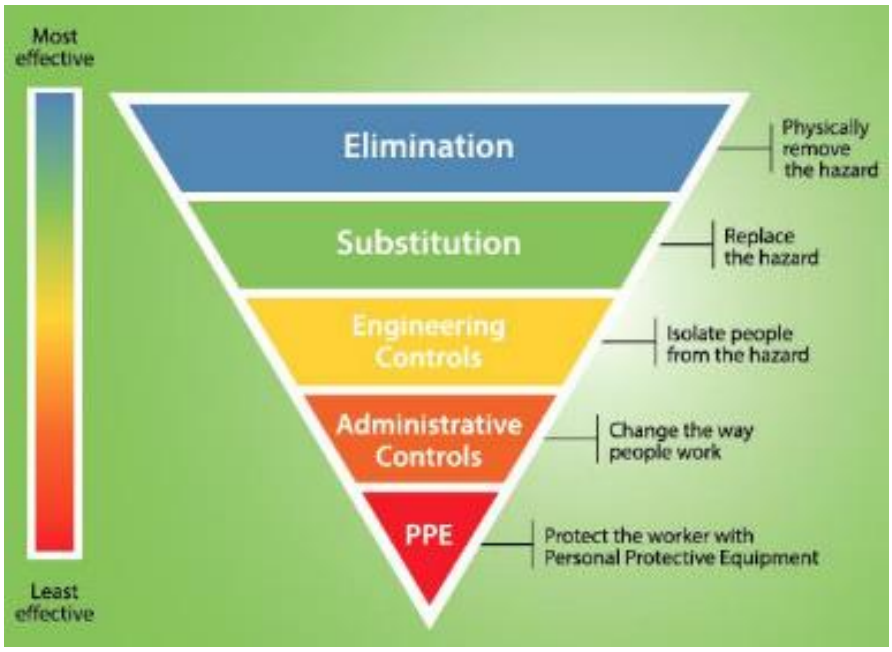
- Find out root causes that led to accident or incident occurring;
- To analyse what exactly happened, and what failings led to the accident
- Analyse the accident responsiveness and if there were better practices that could have saved the worker after the incident
- Assess the capacity of contractors and supervision engineers to implement EHS measures
- Prepare a report outlining the circumstances of the serious injury or accident and the corrective action, if any, undertaken to prevent a recurrence of the serious injury or accident;
- Ensure the incident is properly documented in records; and
- Ensure that a copy of the report is readily available for inspection by an officer

Risk Assessment

Contractor shall ensure that workplace health and safety risk assessment is undertaken for all activities where there is a potential for harm. Risk assessment shall consider the following steps for any activity that will be carried out

- Hazard identification
- Identify People who are at risk for example workers, visitors or suppliers of materials
- Evaluation of risk by analysing the likelihood of occurrences and its impacts
- Selecting risk control measures by following the hierarchy order.
    - ✓ In considering options for controlling the identified risks, the hierarchy of controls helps to ensure that the most effective controls are implemented
    - ✓ The contractor should aim at eliminating, substitution or isolation of the risk other than relying on personal protective equipment which is the last most effective control.
- Review the process and documentation regarding all health and safety performance

Depending on the timeframe of the project, however, the contractor should continuously review to monitor and improve control measures and find safer ways of doing things. All findings need to be documented in the safety files.



Hierarchy of OHS Control (Source: Trinity Consultants)

Communication

Contractor shall ensure that there is proper communication among all people that may be directly or indirectly affected by the project activities. The contractor should develop communication policy defining internal and external communication procedures. Use different methods i.e. verbal, written and graphic to ensue effective communication. Ensure communication equipment provided to ensure good communication for workers working in remote areas. For internal communication, the contractor should among others include the following ways:

- Health Safety weekly meetings and compilation of minutes.
- Tool box talks with workers before work starts to ensure workers are reminded about safety issues

For external communication the contractor will consider the following ways:

- Setting management for handling queries on health and safety management from local communities, journalists, business community, neighbour's, local representatives, and any other external parties during the time of emergencies.

Conclusion

The plan has focused on how health and safety issues should be managed during project implementation. Therefore, for the contractor to be assured that health and safety issues will be effectively managed there is need to implement health and safety programs. Some of the programs this plan has identified include, safe access to working site, safety induction and training, sanitation facilities, traffic management, personal protective equipment, risk assessment and communication.

Contractors Health and Safety Management Plan Acknowledgement Form

PART 1: CONTRACTOR INFORMATION	
NAME	
ADDRESS	
PHONE	FAX
EMAIL ADDRESS	
PART 2: DESCRIPTION OF WORK	

NATURE OF WORK:
MAIN CONTRACTOR ACKNOWLEDGEMENT Indicate if you are assuming prime contractor responsibility for this project □ YES □ NO
SUB-CONTRACTOR ACKNOWLEDGEMENT Indicate if you are a sub-contractor for this project □ YES □ NO
WORKSITE:
WORK PERFORMED FOR(CLIENT):

PART 3: CHECKLIST OF CONTRACTORS HEALTH & SAFETY RESPONSIBILITIES	
Contractor for Livingstonia and Mzuzu Technical College your review and signature of this document is necessary prior to commencement of the work. The items in this checklist are in addition to any specific health and safety requirements that are identified in the HSMP Please complete this form by reading and initialling each item in the checklist and then by signing the acknowledgement at the bottom of the document.	
□	**LTC & MTC Health and Safety Policy and Contractor Commitments** – I acknowledge that I have been made aware of and will follow the client Health and Safety Policy and its commitments.
□	**Compliance to Legislation**– I am aware of and will comply with all applicable legislation that relates to Health and Safety for the contracted work performed.
□	**Awareness and Competence** – I acknowledge that I am responsible to ensure that all personnel are aware of applicable occupational health and safety requirements and responsibilities, and that all personnel are competent to perform their work
I have received and understand the information in the Contractor's Health and Safety Management Plan and I understand that it is my responsibility to comply with these requirements and communicate this information to all onsite personnel that are engaged in carrying out the work or providing material to the site.	

MAINCONTRACTOR REPRESENTATIVE (SIGNATURE)
SUB-CONTRACTOR REPRESENTATIVE (PLEASE PRINT)
DATE OF ACKNOWLEDGEMENT
PART 4: DISTRIBUTION OF FORM
Forward a copy of the signed Contractor's Health and Safety Responsibilities Acknowledgement Form to the Project Manager. Retain original of the Form with contract documents.

Human and Safety Performance Declaration

Contractor's Name: ……

Joint Venture Member's or Sub consultant's: **……**

RFP No. and title: Reference No: ……..

Human and Safety Declaration
We: ☐ (a) have not been subject to disqualification by the African Development Bank or Government of Malawi for non-compliance with Human and Safety obligations ☐ (b) are subject to disqualification by the Bank for non-compliance with Human and Safety obligations ☐ (c) had been subject to disqualification by the Bank for non-compliance with Human and Safety obligations. An arbitral award on the disqualification case has been made in our favour.
[If (c) above is applicable, attach evidence of an arbitral award reversing the findings on the issues underlying the disqualification.]

Sign: …….

Date: ……..

Appendix 5: Gender Based Violence (GBV) Management Plan

a. Introduction

Gender Based Violence Management Plan outlines how the project will put in place the necessary procedures and mechanisms to address Gender-Based Violence risks and how to address any GBV complaint cases that may arise during project implementation at Mzuzu and Livingstonia Technical Colleges.

Gender Based Violence includes sexual exploitation, sexual abuse and sexual harassment.

i. *Sexual exploitation:* This is any action or attempt to abuse position of vulnerability, differential power or trust for sexual purposes including but not limited to; monetary benefits, socially or politically from the sexual exploitation of another gender during project implementation.
ii. *Sexual abuse:* This is an action or physical intrusion threat of a sexual nature whether by force or under unequal or coercive conditions.
iii. *Sexual harassment:* This is any unwelcomed sexual advances, request for sexual favours, and other verbal or physical conduct of a sexual nature.

b. Sexual Exploitation, Abuse and Harassment Management Plan

This plan outlines measures which the contractor shall employee to prevent and manage SEA/SH at workplace. The contractor should assess the risks that related to SEA/SH and identify and implement prevention and mitigation measures to address those risks; all these shall be documented.

c. Code of Conduct

The contractor shall ensure that the code of conduct that includes provisions for addressing SEA/SH and include prohibitions against sexual activity with anyone under the age of 18 at workplace has been developed and communicated to all workers and those that may be affected by the project. The following will need to be implemented for the success of code of conduct:

- Ensure requirements in Code of Conduct are clearly understood by all workers signing it.
- Ensure that the Code of Conduct is signed by all those with a physical presence at the project site.
- Ensure that all staff are trained on the behaviour obligations under the Code of Conduct.
- Disseminate conduct (including visual illustrations) at the workplace and discuss with employees.
- Ensure the code of conduct address Sexually Transmitted Diseases (STDs), and prevention of Workplace Sexual Harassment (WSH), Sexual Exploitation and Abuse (SEA), Gender-Based Violence (GBV).
- Ensure that there is a team that will implement the Prevention of Sexual Exploitation, Abuse and Harassment at Workplace procedure.
- Ensure that SEAH prevention and response action plan are prepared before commencement of the construction works.
- Ensure that the code of conduct include sanctions that may be applied if an employee is confirmed as a SEA/SH perpetrator; the sanctions need to be proportional to the violation.
- Ensure that code of conduct be a part of the employment contracts.

d. Training and Awareness

Training and awareness raising is a strong step toward behaviour change. In order to properly address sexual exploitation, abuse and harassment at workplace, the contractor should ensure that all workers, managers and junior staff are trained and sensitized on the issues. The training and sanitization should also target sub-contractors and suppliers including their workers. The contractor can incorporate Sexual Exploitation, Abuse and Harassment training into the regular Occupational Health and Safety toolbox talk with workers, or it can be a standalone training.

The contractor should ensure that training on SEA/SH is thorough and proportional to the SEA/SH associated risk. During project implementation, the contractor should ensure that SEA/SH issues have been communicated to the communities surrounding the project area so that they can learn about the roles and responsibilities of different key stakeholders involved in the project. The processes for reporting allegations of SEA/SH, and the corresponding accountability structures also need to be communicated to the communities. Training of both the communities surrounding the project area and contractor workers allow them to understand the risks of SEA/SH, as well as appropriate mitigation and response measures that have put in place. The contractor should continuously deliver an ongoing basis induction and training on preventing and managing SEA/SH.

At minimum, the contractor will ensure that through training and communication workers and surrounding communities understand the following:

- The meaning of Sexual Exploitation, Abuse and Harassment and how their project can aggravate SEA/SH risks.
- SEA/SH allegation reporting mechanism, accountability structures, and treatment procedures within the workplace and for community members to report cases related to project staff.
- Services available for survivors of GBV.

e. Working Spaces and Safety Facilities

The contractor should ensure that health and safety facilities should not promote SEA/SH. The contractor should assess the health and safety facilities in order to ensure that:

- There are separate, safe and easily accessible facilities for women and men working on the site.
- Locker rooms and/or latrines should be located in separate areas, well-lit and include the ability to be locked from the inside.
- There is visibly display signs around the project site (if applicable) that signal to workers and the community that the project site is an area where SEA/SH is prohibited.
- As appropriate, ensure public spaces around the project grounds are well-lit.
- If workers are accommodated, the facilities that are provided need to consider a safe space for men and women, for example, separate accommodation and wash facilities.

f. Reporting Mechanism and Service Provision

To ensure that SEA/SH conduct is prevented and properly managed at worksite, the contractor should ensure that there is proper mechanism of reporting. The contractor should ensure that:

- There is an ethical and safe process of receiving, investigating and addressing all allegations of SEA/SH among workers or surrounding communities.
- There is procedure on how the information will be provided to employees and the community on reporting cases of SEA/SH.
- There is more than one channel of reporting SEA/SH at workplace, for instance the use of whistle-blower.
- There is procedure of keeping survivor information anonymously.
- There should be proactive and ongoing awareness raising of the reporting mechanism and how to access it.
- The investigation and response procedures following a report should be clear, and essential services for survivors should be in place. For example, GBV services, health services, and psychosocial support.
- Workers' GRM has been prepared which includes procedure for handling SEAH related allegations.
- The GRM should include processes to refer complaints to the project General Manager.
- There is a contact person/expert for SEAH aspects; he/she should be trained on how to collect SEA/SH cases confidentially and empathetically.
- All SEAH related incidents or allegations are reported immediately (within 24hrs) to the supervision engineer.

g. Confidentiality

The contractor should ensure that the team handling SEA/SH complaints are professional and ethical. It is essential that the confidentiality and safety of survivors be protected by not revealing the information to the third party without the owner's consent. The contractor should ensure that the information collected should not be more than the following related to the SEA/SH allegation:

- The nature of the complaint (what the complainant says in her/his own words without direct questioning);
- If, to the best of the survivor's knowledge, the perpetrator was associated with the project;
- If possible, the age and sex of the survivor; and
- If possible, information on whether the survivor was referred to services

Legislations Related to Gender Based Violence (GBV)

This section describes legislations applicable to Gender Based Violence issues of the proposed construction projects at Mzuzu and Livingstonia Technical College (LTC).

a. The National Gender Policy (2015)

Gender mainstreaming into socio-economic development plans is one of the enablers for sustainable development worldwide. The Sustainable Development Goals (SDGs - II) recognizes the importance of gender and women empowerment in socio-economic development. The National Gender Policy provides guidelines for mainstreaming gender in various sectors of the economy to reduce gender inequalities and enhance participation of women, men and the youth for sustainable and equitable development, as well as poverty eradication in the country. According to the policy, persistent gender inequalities and under-representation of women in decision making positions at all levels, necessitated development and implementation of the gender policy in order to address such gender imbalances and other related issues.

The implementation of the projects shall therefore mainstream gender related issues to ensure that beneficial impacts and adverse impacts affecting women and girls are appropriately enhanced and mitigated against, respectively. The project has to integrate consideration of the needs of both males, females and other vulnerable groups in project activities. The potential considerations could be equal employment opportunities to both male and female during the implementation of the project in order to enhance income for both. In addition, membership for various committees at all levels of the project must advocate for 50:50 representation for both sexes.

b. National HIV and AIDS Policy (2012)

The policy seeks to address HIV and AIDS issues that have affected socio-economic development especially in the area where the project will be carried out. Economic growth is negatively affected by issues around HIV and AIDs and this includes sectors such as agriculture and tourism. Transmission of HIV and AIDS has been prevalent in cases where there have been migration and an increase in disposable income both of which may result from the proposed construction works at Colleges during project implementation. The proposed project shall therefore address the issues of HIV and AIDS and deter transmission by working with relevant stakeholders such as district health officials, faith leaders and local health officials to sensitize communities and project beneficiaries on prevention measures. Further, Information, Education and Communication (IEC) materials on HIV and AIDS should be utilized.

c. The National Gender Equality Act (2013)

The Gender Equality Act of 2013 promotes gender equality, equal integration, influence, empowerment, dignity and opportunities for men and women in all functions of the society. It prohibits and provides redress for sexual discrimination, harmful practices and sexual harassment. Part IV of the Act also provides quotas in terms of employment opportunities such that an appointing or recruiting authority in the public service shall appoint not less than 40% and no more than 60% of either sex in any department in the public service.

Therefore, when employing people for the implementation of the project activities, the Contractor and the Client will have to ensure that the provisions of this Act are complied with to ensure gender equality in all spheres of socio-economic development. It also emphasizes non-discrimination in labour practices and opportunities, including non-discrimination of physically challenged persons among the categories of vulnerable groups.

d. The Employment Act (1999)

The Employment Act of 1999 reinforces and regulates 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. Relevant to the proposed SAVE project is the set of minimum wage, fair labour practices, non-discrimination, equal remuneration, and prohibition of employment of children. When employing people for the implementation of the project activities, the developer will ensure that the provisions of this Act are complied with.

Therefore, the implementation of the project shall ensure fairness among employees, prohibit any form of discrimination for example bias towards men, equal pay or wage for equal work among employees. It will also emphasize non-discrimination in labour practices and opportunities, including non-discrimination of physically challenged persons among the categories of vulnerable groups.

Conclusion

Ensuring that SEA/SH will be well managed or prevented at the workplace, it the responsibility of the project contractor to implement programs that will reduce SEA/SH risk. The contractor should ensure that there is code of conduct put in place and signed by all workers. The contractor should also ensure that all workers and surrounding communities where the project is implemented are sensitized of SEA/SH and associated risks. Putting in place reporting

system is also crucial. The contractor should ensure that the information provided by the survivor is kept confidential.

Appendix 6: Waste Management Plan (WMP)

a. Introduction

The Waste Management Plan (WMP) addresses the management of all solid and liquid waste, including hazardous and non-hazardous waste, produced as a result of project activities within the project impact area

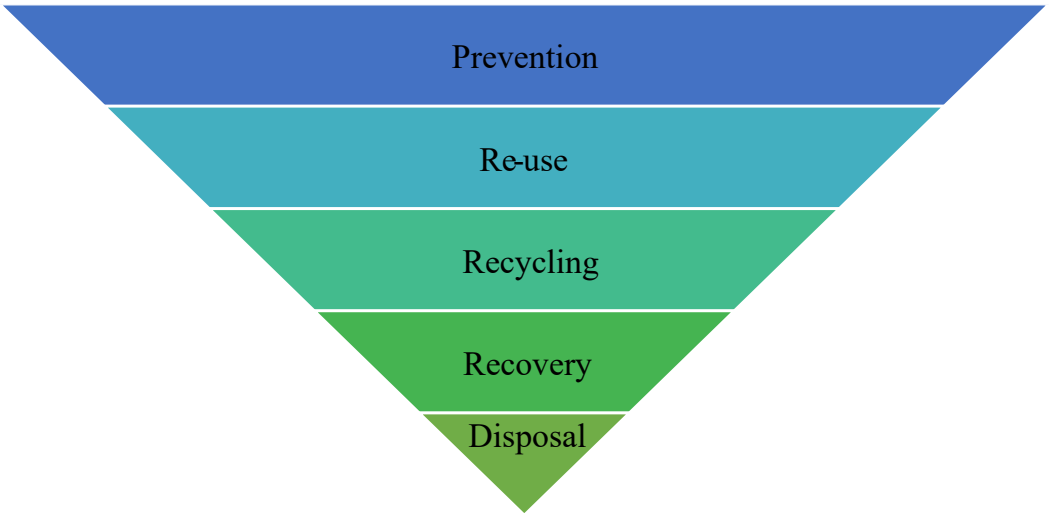
The WMP covers the construction phase of the project. This report constitutes minimum requirements and general guidance which may be customized by the contractor to meet contract requirement and project content during the construction phase of the project.

b. Purpose

The WMP aims to provide guidelines on waste management from generation, storage, collection and disposal practices in accordance with the requirements of the Government of Malawi and World Bank best practices, to avoid deterioration of the natural environment and negative impacts on the health and safety of communities in the Project Area.

c. Waste Management Options - Waste Hierarchy

The management of waste during the construction phase of the project will be guided by Waste Hierarchy Framework in the figure below. The framework gives waste management priorities ranked in terms of what's best for the environment giving top priority to waste prevention, followed by re-use, recycling, recovery and finally disposal.



Waste Management Hierarchy

Within the context of this project, these waste management priorities are described in more detail below:

i. Prevention

The Contractor should ensure there is minimal wastage. This could be achieved through reduction of construction mistakes, ordering the right quantities of materials, getting the right-size materials for the job, proper storage of materials, trying out new building methods and choosing building products with minimal packaging include few ways on prevention on operational phase

Contractor(s) should be committed to avoiding the generation of waste and not using hazardous materials. Where the use of hazardous materials is unavoidable, efforts should be made to identify replacement materials that are non-hazardous.

ii. Re-use

Contractor(s) should be required to prepare a maintenance management plan which seeks to ensure that all equipment is regularly checked and maintained and refurbished or repaired for use as opposed to acquiring new equipment. In addition, Contractor(s) should seek to sell and buy used items, donating them for free or exchanging them.

iii. Recycling and recovery

Contractor(s) should seek to turn waste into a new substance or product, such as composting of organic wastes to a standard that meets quality controls. This compost could be sold or given

to farming communities around the construction and operations sites to facilitate improvements in soil conditions and hence their production levels. Contractor(s) can also use demolition waste as a construction material like aggregate for concrete. In addition, construction and demolition waste can be used as a fill material within the project area.

iv. Disposal

Disposal is deemed the last resort and must occur in an environmentally responsible manner. Disposal results in waste going to landfill or to incineration without energy recovery and is the least preferred environmental option. However, when wastes must go for disposal, this must occur at a suitably designed sanitary waste disposal site.

d. Waste Categories Generated in the Project

Solid waste generation in the Project will generally include:

- Biodegradable waste (food and kitchen waste, green waste such as vegetables, leaves and fruits)
- Recyclable material (paper, glass, bottles, cans, metals, plastics, etc.); and
- Inert waste (construction and demolition waste such as wood, steel, concrete, rubble and dirt)
- Liquid waste (wastewater, oil, lubricants, solvents and paints)

e. Solid Waste Management at the Project Sites

All Waste Generators within Project sites will be required to segregate waste at source to ensure the value of the wastes are optimised through recovery, reuse and recycling. By providing an enabling environment the success rate of correct waste practices being implemented are increased. Segregation should be by all generators and into three main waste streams:

- Wet (biodegradable);
- Dry (plastic, paper, metal and wood); and
- Hazardous wastes (empty containers of oil, lubricants, solvents paints and cleaning agents).

Collection of the segregated waste is to be undertaken by an authorised waste collector. As a minimum wet and dry wastes should be segregated (2-bin system) by the waste generators, see Figure below. Source segregation of waste optimises waste processing and treatment

technologies. The bio-degradable waste should be processed, treated and disposed of through composting within the project areas.

Example of waste separate of inorganic and organic wastes at source

Construction and demolition waste should be stored separately. Opportunities to repurpose this waste as secondary aggregate to the construction industry should be investigated to ensure this waste is either utilised in the Project Sites or is sold as a product to the construction industry. No construction or demolition waste should be disposed of to landfill. No hazardous wastes shall be permitted to be disposed of outside the boundary of the Project Sites unless being transported to a sanitary landfill. . In case of transportation to a landfill site, it will be contractor's responsibility to ensure that the waste collector which will be transporting the waste for disposal is licensed to do so. In addition, the Contractor(s) will need to provide evidence in writing from the receiving disposal site of its capacity to recycle or dispose of the waste in an environmentally sound manner. Proof of safe disposal should be provided to the contractor by the waste collector, such as a waste disposal ticket issued, and date stamped by the sanitary landfill.

The dry waste such as paper and plastic and cardboard and glass are to be recycled. The Contractor(s) must provide a site with a covered storage area for recyclable waste. The size of the area provided should be suitable for the bulk storage of up to 7 days of waste generation.

f. Liquid Waste Management in the Project Sites

In both institutions, there are existing septic tanks which were established to accommodate new developments, hence these new projects will connect to existing septic tank for wastewater

storage and management. The Contractor(s) shall also provide mobile toilet for collection of human excreta at the construction sites. When the fill up, the mobile toilets shall be emptied by a licensed/registered specialist service provider for discharge into the septic tanks.

No hazardous liquid wastes such as oil, lubricants, solvents and paints shall be permitted to be disposed of outside the boundary of the Project Sites unless collected by a licensed specialist service provider for proper disposal. The Contractor(s) should ensure that the specialist service provide proof of capacity to manage liquid hazardous waste and proof of safe disposal of the different batches of the waste collected from the construction sites.

g. Waste Management Monitoring

Inspections

Site inspections must be performed on a regular basis by the Health, Safety and Environment (HSE) personnel from each College and District Council. Inspections will ensure that all commitments in this Waste Management Plans are being enforced and that specific waste management elements are verified.

Data Collection

Implementation of the waste hierarchy principles requires that destinations and quantities of residual matters are monitored. A register of waste material should be maintained to ensure the measurement of eliminated waste and of residual matter sent for reuse, recycling and reclamation.

Waste Audit

Bi-annually, a waste audit should be performed, on all waste data collected, to identify waste streams and fate and develop ways to reduce waste production.

Performance Indicators

Measurement is an important tool in improving performance, and performance indicators will help the Contractor(s), in both colleges and District Councils define and measure progress towards their goals. The results reflect current conditions and allow orientation and coordination of further actions towards sustainability.

Environmental Audit Results

Environmental auditing is a key process in the implementation of the Environmental and Social Management Plan (ESMP), of which the WMP forms a part. The findings of each audit should be registered in a database, where corrective and/or preventive actions are prescribed, responsibilities assigned to people, deadlines established, and necessary resources mobilised. In compliance with the procedure, audit reports should categorise findings as being either "major", "minor" or "observation". The number of findings shall be decreasing every year until the ultimate goal of zero major findings is achieved.

Percentage Waste Generated

During the operational phase, the quantities and types of waste produced should be tracked for each waste generators categories, and activities examined to identify waste reduction opportunities. Specific reduction target ratios should be determined, and the rate of waste production is required to reduce annually relative to production volumes.

Waste collection Percentage

The percentage of volume of waste collected in relation to waste generated shall be evaluated bi-annually to appraise waste collection performance,

R*esponsibilities*

The roles and responsibilities inherent to the Waste Management Plan are presented in Table below

Roles and Responsibilities

Entity	**Responsibilities**
Rumphi District Council	- Enforce the Waste Management Plan. - Contractually obligate the Waste Generators to meet the requirements of the Waste Management Plan. - Manage the Solid Waste Management Area or appoint an appropriate contractor.

Entity	Responsibilities
Contractors	- Provide a minimum of two garbage receptacles to allow for wet and dry waste segregation. An additional bin for hazardous waste is highly recommended. - Develop a site-specific Waste Management Plan for the activities the Contractor is undertaking. - Site-specific Waste Management Plan must be aligned with the full site waste management plan and must be approved by Developers and District Councils prior to work commencing. - Educate all members of staff on the waste hierarchy. - Educate all members of staff on site-specific Waste Management Plan - Education is to be provided to each staff member before commencement of work, and regular refresher sessions are to be undertaken in the form of toolbox talks or training sessions throughout the contract period.

Record Keeping

Data on waste production and disposal should be gathered continually via logbooks and registers. Records should be maintained on site and made available to the authorities and any other party contracted to audit or assess the waste management practices on site. The data should include the final destination of each waste stream, and where disposal has occurred, proof of safe disposal will be required, such as a date-stamped waste disposal ticket issued by a sanitary landfill. A cost should be paid for the safe disposal of waste. Evidence of waste disposal should also be maintained.

Review Process: The WMP is to be reviewed and updated on an annual basis.

Appendix 7: E-Waste Management Plan (EWMP)

1. Introduction

This E-Waste Management Plan (EWMP) outlines a systematic framework for managing electronic waste generated at Mzuzu and Livingstonia Technical Colleges in Malawi. E-waste refers to discarded electrical and electronic equipment (EEE) that has reached the end of its useful life. The project is expected to generate e-waste from items such as computers, printers, televisions, mobile phones, and a variety of other electrical devices.

E-waste presents significant risks because it often contains heavy metals and other hazardous substances used in manufacturing, including mercury, brominated flame retardants, and

cadmium. If not properly managed during dismantling or recycling, these substances can cause serious harm to human health and the environment.

This plan is designed to address these risks and is aligned with

i. **National E-waste Management Policy 2024**: guides inadequate funding for e-waste management interventions; a poor governance system; and the coordination and management of e-waste management-related programmes
ii. **Malawi's Environmental Management Act (2017):** provides the legal framework for sustainable environmental management and pollution control. Under the Act, the project ensures legal compliance, minimises environmental and health risks.
iii. **Malawi E-Waste Management Guidelines (2020)** – providing national guidance on the safe collection, storage, transportation, treatment, and disposal of electronic waste in compliance with environmental regulations.
iv. Malawi's Occupational Safety, Health and Welfare Act (OSHWA) 1997,
v. **World Bank Environmental and Social Standard 3 (ESS3): Resource Efficiency and Pollution Prevention and Management** – ensuring that e-waste management practices minimise pollution, promote recycling, and prevent adverse impacts on human health and the environment.
vi. **Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal** – setting international obligations for handling and preventing the unsafe movement of hazardous waste, including e-waste.
vii. **Occupational Safety and Health (OSH) Standards** – ensuring worker protection during the collection, handling, and dismantling of e-waste.
viii. **Circular Economy Principles** – promoting repair, refurbishment, and material recovery to extend the life of electronic products and reduce waste generation.

The EWMP ensures safe disposal, recycling, and minimal environmental harm while promoting cost-effective and sustainable e-waste practices.

2. Objectives

i. Minimise e-waste by avoiding, repairing, reusing, and recycling.
ii. Protect human health and environmental quality from hazardous e-waste.
iii. Prevent pollution of air, water, soil, and ecosystems.
iv. Ensure legal compliance with Malawi's e-waste regulations and international standards.
v. Track e-waste from generation to final disposal.
vi. Promote efficient collection, sorting, and storage.
vii. Ensure hazardous waste is handled only by licensed recyclers.

3. Types of E-Waste in ICT Labs

Category	Examples	Hazardous Components
IT Equipment	Desktops, laptops, servers, UPS systems	Lead, mercury, cadmium
Peripherals	Printers, scanners, projectors	Toner (carcinogenic), flame retardants
Networking Devices	Routers, switches, modems	Brominated flame retardants

Storage Media	Hard drives, USBs, CDs/DVDs	Rare metals, toxic coatings
Batteries	Li-ion, NiMH, lead-acid	Heavy metals, corrosive electrolytes
Cables & Adapters	Power cords, chargers	PVC (releases dioxins when burned)
Packaging Waste	Cardboard, Styrofoam, plastic	Non-biodegradable pollutants

4. E-Waste Handling & Disposal Procedures

4.1 Segregation at Source

Color-coded bins for easy identification:

- Red = Hazardous e-waste (batteries, CRTs, toner)
- Blue = Repairable/reusable items
- Green = Non-hazardous waste (cables, plastic casings)

4.2 Storage Guidelines

Designated storage area: Dry, ventilated, and secure.

Inventory log: Records of e-waste type, quantity, and condition.

Safety measures: PPE (gloves, masks) for handlers; spill containment kits.

4.3 Collection & Transport

i. Scheduled collections (biannually or when bins are full).
ii. Licensed transporters only (registered with Malawi's Environmental Protection Authority and Environmental Affairs Department).
iii. Sealed, labeled containers to prevent leaks/damage.

4.4 Reuse & Repair

i. Refurbishment program: Donate functional devices to schools/community centers.
ii. Spare parts harvesting: Extract usable components (RAM, HDDs) before disposal.

4.5 Recycling & Final Disposal

i. Approved recyclers: Must comply with Basel Convention standards.

ii. Batteries: Separately collected for specialized recycling.

iii. Non-recyclables: Sent to licensed hazardous waste facilities.

4.6 Record Keeping & Reporting

i. Waste log: Tracks type, quantity, disposal method, and recycler details.

ii. Annual report: Submitted to college management and Environmental Affairs Dept.

5. Awareness & Capacity Building

i. Training sessions for ICT staff on safe e-waste handling.

ii. Student awareness campaigns (posters, workshops).

iii. Incentives for departments with best e-waste practices.

6. Monitoring & Evaluation

Annual audits to assess:

i. E-waste generation vs. recycling rates.
ii. Compliance with storage/disposal rules.
iii. Effectiveness of training programs.
iv. Corrective actions for non-compliance.

7. Conclusion

This EWMP ensures environmentally sound e-waste management and Malawi's digital sustainability goals. By adopting reuse, recycling, and safe disposal, the colleges minimise ecological harm and comply with national and international e-waste standards.

Appendix 8: Code of Conduct (CoC) for Project Workers

The code of conduct aims at preventing social risks within the context of the project. The social risks that may arise include: GBV, VAC, HIV/AIDS, Occupational Health and Safety. The contractors who may be engaged under the project will be required to develop and implement a code of conduct that will commit them to create and maintain an environment which prevents social risks. The contractor will be required to communicate clearly to all those engaged on the project the behaviours which guard against any form of abuse and exploitation in order to prevent social risks. A code of conduct should provide a set of values, rules, standards, and principles outlining what employers expect from staff within an organization. For this project, the contractor shall ensure that the code of conduct that includes provisions for addressing issues surrounding local artisans and prohibitions against engaging in activities that will harm the environment like poor waste management and use of sanitary facilities around the project sites, sexual abuse and harassment and engaging in theft of construction materials in the course of conducting their businesses during project implementation. The code of conduct must also include prohibition against child labour as articulated in Child Protection Act. The following will need to be implemented for the success of code of conduct:

- Ensure requirements in Code of Conduct are clearly understood by all local artisans signing it.

- Ensure that the Code of Conduct is signed by all local artisans that will be involved in project implementation directly or indirectly.
- Ensure that all local artisans are well trained on the behaviour obligations under the Code of Conduct.
- Disseminate conduct (including visual illustrations) at their designated business places around the project sites.
- Ensure the code of conduct address issues of environment protection, child labour, sexual abuse and harassment and Gender-Based Violence (GBV).
- Ensure that there is a team that will be responsible for implementation of code of conduct for local artisans during project implementation.
- Ensure that the code of conduct should include sanctions that may be applied if local artisan is confirmed as perpetrator of prohibitions outlined in the code of conduct; the sanctions need to be proportional to the violation.
- Ensure that the code of conduct be a part of the contracts for local people.

Appendix 9: Labour Management Plan (LMP)

a. Introduction

This Labour Management Plan (LMP) has been adopted from the main project LMP and acts as a safeguard to address labour related issues to arise in course of implementation of construction works at. The LMP identifies the main labour requirements and risks associated with the program implementation and helps in determining the resources necessary to address program labour issues. The LMP is a living document reviewed and updated throughout the project.

The exact number of people to be employed is not yet known. However, it is recommended that the ratio of the men to women employed by the project should be 40:60 or vice versa. As per Employment Act (1999), the project should set minimum wage, practice fair labour practices, non-discrimination, equal remuneration, and prohibition of employment of children. When employing people for the implementation of the project activities, the contractor should ensure that the provisions of this Act are complied with. In the event that a workers' camp will be constructed, the contractor should ensure that there are adequate welfare facilities such as first aid facilities, kitchen, sanitation and a camp lay out must be provided.

b. Objectives of the Labour Management Plan

The main objective of LMP is to ensure that all labour issues are properly managed including Occupational Safety and Health issues throughout the project. The Malawi Government encourages the adherence of sound worker-management relationships, fair treatment of workers, promotion of gender equality and protection from Gender-Based Violence (GBV) and provision of safe and healthy working conditions. It is for this reason that this LMP is proposed for the project. The specific objectives of the Labour Management Plan are:

- To promote appropriate labour practices which include non-discrimination and equal employment opportunity to all eligible community members;
- To promote safety and health at work;
- To protect project workers, including vulnerable workers such as women, students, persons with disabilities, migrant workers, contracted workers and community workers.
- To prevent the use of all forms of forced labour and child labour;
- To support the principles of freedom of association and collective bargaining of program workers in a manner consistent with national law; and
- To provide project workers with accessible means to raise workplace grievances.

c. Anticipated Labour Use in the Project

Users of the LMP

This LMP applies in to all project workers whether full-time, part-time, temporary, seasonal or migrant workers and it is applicable to the project in the following manners:

1. People employed or engaged directly by PIU to work specifically in relation to the project.
2. People employed or engaged by contractors to perform work related to core function of the project, regardless of location.
3. People employed or engaged by the primary suppliers under this project.

All the workers will be informed about Grievance Redress Mechanism which will be used to ensure that all workers have ability to express their concerns with the assurance of expedited and satisfactory settlement of disputes that may arise during project implementation. The contractor is expected to develop a code of conduct which will be provided to all workers. This will commit them to create and maintain an environment which prevents social risks.

Characteristics of Project Workers

It is planned that during the course of the project, at least 30% women will be employed. The project will employee both skilled and semi-skilled personnel and these will include;

Direct Project Workers (Government workers)

During the implementation of the project, government workers will be involved on either full-time or part-time basis. Civil servants and PIU staff are expected to work on full-time basis throughout the project in order to coordinate the project while the rest of the teams will be working on part-time bases when need be. Government workers from Ministries of Education, Labour and Gender will be involved in various capacities during school operation e.g., advisory to complement efforts of workers from the participating institutions.

Contracted Workers and Short-term Consultants

Different contractors may be engaged for specific purposes to undertake different specific assignments. The contracted workers and short-term consultants will be guided by specific contractual agreements between them and the Ministry of Education. Local people surround the project impact area should be given priority for both skilled and unskilled labour; while ensuring there is no risk of child labour (all workers shall be above 18 years old). In the case where skilled workers are not available in the project impact area, workers from nearby communities or other part of the country or other country will be contracted during the project. Short time Consultants and Artisans will also be engaged during operation phase in assignments.

Primary supply workers

All primary suppliers will be allowed to provide directly to the project goods or materials essential for the core functions of the project at a standard stipulated by Project's procurement team. As part of the environmental and social assessment, any new supplier will be investigated in regard to compliance with taxes, certification, licensing, and Public Liability Certificate.

d. Potential Key Labour Risks

During environmental and social assessment process, it has been noted that project workers, surrounding communities, students and staff from the college may be exposed to health and safety risks. Some potential key labour risks that may arise during the projects are;

- Occupational Safety and Health risks during construction and operation;
- Noncompliance with labour laws and regulations by the contractors;
- Gender Based Violence GBV
- Violence against Children; (Child labour, Defilement, Child Marriage)
- Risk of contracting diseases such as COVID-19, Cholera, HIV and AIDS and STIs

- Risk of exposure to hazardous materials and wastes
- Risk of excess exposure to noise and vibrations
- Discrimination and exclusion of vulnerable groups;
- Labour conflicts and work conditions.

These risks will be analysed using information gathered from the study for development of the ESMP and mitigation measures will be incorporated for the identified risks into the environmental and social management plan for the sub-project. Table below presents a summary of the possible mitigation measures for the potential identified risk.

Table 1: Possible Mitigation Measures for the Potential Labour Risks

Item	Potential Risks	Mitigation measures
1	Occupational Safety and Health Risks during construction	• Provide and enforce use of PPEs to workers. • Provision of regular OHS training including safe work practices and emergency procedures to all workers. • Provide appropriately first-aid stations at the work place. • Use of warning signs in areas with high risk of safety and different dust control methods around project impact area. • Use of Standard Operating Procedures to avoid risks. • Provision of user-friendly firefighting equipment. • Double insulates all electrical equipment and marking of all buried electrical wiring prior to any excavation work. • Manage outdoor work and temperature-related stress by monitoring weather forecasts to provide advance warning of extreme weather. • Facilitate the formation of Occupational safety, Health Welfare Committee at the construction site.
2	Risk of contracting HIV and AIDS and other STIs -Risk extended to both workforce and local community	• Sensitization on issues of HIV and AIDS and other STIs. • Provide sexual related information and condoms to the workers, students and community in project impact area.
3	Risk of Contracting COVID-19	• Raise awareness on COVID-19 best practices for construction sites to workers, learners and staff • Ensure all offices at workplace are well ventilated and all people are face masked.

Item	Potential Risks	Mitigation measures
4	Risk of other communicable diseases. Cholera and Malaria, flu, cough, TB to workforce, learners and staff	• Sensitization on issues of communicable diseases. • Encourage workers and communities to go for voluntary screening/ medical check-up/testing; • Provide Information, Education and Communication materials on different communicable diseases • Provide adequate supplies of potable drinking water • Provide clean eating areas. • Provide adequate lavatory facilities. • Eliminate unusable impounded water. • Ensure all rooms at workplace are well ventilated.
5	Non-compliance with labour laws and regulations by Contractors	• Contractors should sign a Code of Conduct before commencement of construction works. • Sensitize workers on labour related issues and regulations.
6	Increased risk of influx of migrant workers – Competition over local resources	• Engage all non-skilled labour force from surrounding communities to minimize the risk of migrant workers and associated negative impacts.
7	Gender Based Violence	• Sensitize workers, staff and surrounding communities on dangers and prevention of Gender Based Violence. • Provide equal employment opportunities. • Prepare, adopt and implement worker's code of conduct.
	Sexual Harassment and Rape	• Community sensitization on issues of Sexual harassment. • Community sensitization on issues of GRM existence and implement a Workplace Policy on Sexual Harassment

Item	Potential Risks	Mitigation measures
8	Violence against Children	• Sensitization on issues of violence against children. • Employ people that are aged 18 and above; and • Restrict workers from buying merchandise from children
	Child labour	• Community sensitization on issues of Child labour. • Not engaging students in construction related activities.
	Child marriage	• Community sensitization on issues of Child marriage • Put in place child marriage reporting mechanisms.
9	Sexual Exploitation and Abuse – Both for workforce and local communities, particularly under aged girls	• Contractor shall have GBV/SEA Action plan. • Carry out community sensitization, women and girl's empowerment and implement workers code of conduct.
10	Discrimination and exclusion of vulnerable groups;	• Implement a deliberate work policy for gender equality. • Develop deliberate mechanism to monitor participation of vulnerable groups in all activities.
11	Labour disputes and conditions of employment.	• Establishment of Grievance Redress Mechanism (GRM), and Development of LMP.
12	Increased competition over resources due to influx of labour	• Employ more locals
13	Risk of exposure to hazardous materials and wastes	• Avoiding and minimize the use and release of hazardous materials. • Preventing uncontrolled releases of hazardous materials to the environment e.g. paint, oils and etc.

Item	Potential Risks	Mitigation measures
		• Conducting hazard communication and training programs
14	Risk of exposure to excess noise and vibrations	• Ensure exposure to noise by workers should not exceed 85 dB (A) for a duration of more than 8 hours per day without hearing protection. • Use of low vibration and noise production equipment. • Install vibration dampening pads or devices, • Limit duration of vibration exposure per individual worker

e. Responsibilities and Reporting OHS Incidents and Accidents

Immediate reporting of OHS significant events and accidents is an integral part of the project implementation as per Environmental and Social Commitment Plan (ESCP) requirement of the project. Ministry of Labour, Ministry of Education and the PIU have the responsibility for reporting Incidents and accidents as well as regular reporting of the project as per project ESCP. With respect to reporting incidents and accidents, the following procedures have to be followed;

- Promptly notify the Association of any incident or accident related to the Project which has, or is likely to have impact to the surrounding environment and people living in project impact area.
- Provide sufficient detail regarding the incident or accident, indicating immediate measures taken or that are planned to be taken to address it, and any information provided by any contractor and supervising entity, as appropriate.
- Subsequently, as per the Authorities request, prepare a report on the incident or accident and propose any measures to prevent its recurrence.
- Notify the Bank within 48 hours after learning of the incident or accident with the submission of any required subsequent report within a timeframe acceptable to the Authorities, as requested.

Other than incident/accident-based reporting, regular reporting of OHS issues also has to be undertaken. This can be done through preparing and submitting regular monitoring reports to the Association on the environmental, social, health and safety (ESHS) performance of the Project.

This should be done in tandem with reporting of other aspects of the project e.g. status of implementation of the project, status of preparation and implementation of E&S documents required under the ESCP, stakeholder engagement activities, functioning of the grievance mechanism(s) etc.

f. Age of Employment

The Malawi Employment Act (2000) and International Labour Organisation Convention (138) sets the minimum age of persons to enter into employment as 18 years. However, dispute Section 21 of the Employment Act, which allows children between the ages of 14 and18 to participate in light work so long as it does not interfere with the child's education or harm the child's health or physical, mental, spiritual, moral or social development. Children under the age of 18 will **NOT** be employed to work in different sub-project activities because the activities are not regarded as light work. National Identity card will be used to verify the age of workers. The following procedure will be followed if a child is employed:

- Underage workers identified will be removed; and
- The culprits of child labour shall be reported to relevant authorities where child labour issues are handled e.g.to the Labour Office.

All these conditions will be included in the codes of Conduct which will be signed by Contractors and all artisans to ensure that the conditions are not only enforceable but are also legally binding them on prohibition and negative impact of child and forced labour.

v. COVID 19 Construction Site Prevention

Coronavirus Disease 2019 (COVID -19) is an acute respiratory disease caused by a novel Coronavirus (SARS-CoV-2), transmitted in most instances through respiratory droplets, direct contact with cases and also through contaminated surfaces or objects. COVID 19 has previously had a big effect the various development projects including the construction industry. The Implementation of construction work during the COVID-19 Pandemic has marked substantial changes on the way projects are being executed. The contractor should commit to prevent the spread of corona virus by implementing the preventive measures as recommended by the World Health Organization (WHO) as well as the government of Republic of Malawi. A comprehensive risk assessment should be done to identify the hazards inherent to the construction and office work to be done by the contractor, identify the people who are/will (be) at high risk of being affected,

evaluate the risks considering the currently existing controls. The plan should among others to address the aspects listed below:

- What to do if a member of staff or the public with suspected COVID-19 has recently been in your workplace
- What to do when individuals in the workplace have had contact with a confirmed case of COVID-19
- Procedure for cleaning offices and public spaces where there are suspected or confirmed cases of COVID-19
- How to organize meetings or events
- Rules for those returning from international travels
- Strategy on safe sharing of office space and welfare facilities
- PPE usage and hand washing facilities.

vi. Child Protection Management Plan

The overarching goal of the present National Plan of Action (NPA) for Vulnerable Children in Malawi is: To facilitate the care, protection and development of orphans and vulnerable children in a coordinated manner in order to provide them with an environment in which they realize their full rights and potentials" Like in many countries, children in Malawi are also facing neglect, exploitation, being used as labour, abuse and violence.

The objective of this child protection plan is to:

- Ensure that each child in the household around the project area is safe and prevented from suffering harm;
- Promote the child's welfare, health and development;
- Provided it is in the best interests of the child, to support the family and wider family members to safeguard and promote the welfare of their child.

The most important outcomes of child protection are to prevent violence, abuse and exploitation, by establishing or supporting child protection system. The Child Protection Plan must make clear to the child, family, and all relevant professionals the exact nature of the concerns which resulted in the child requiring the plan; The Child Protection Plan should set out what work needs to be done, why, when and by whom. The social experts from the social welfare department should ensure that the parents understand:

- The evidence of the child suffering significant harm, or likely significant harm, which resulted in the child becoming the subject of a child protection plan;
- What needs to change;
- What is expected of them in the plan to safeguard the child?

a. Contents of the plan

i. identify things likely to cause harm to the child
ii. identify how the child can be protected from those things
iii. ensure the child is kept safe, well cared for and is prevented from suffering further harm
iv. support the family or carer so that they are able to keep the child safe and cared for
v. state what is expected of parents or carers, children's services and other agencies.

Appendix 10: Traffic Management Plan

The contractor shall be required to set up traffic management plan during construction phase of this project. Most likely during the construction phase some areas will be heavily affected by temporary traffic disruptions as the roads may be shut down for that particular period of construction. As such, to avoid inconveniencing the road users and the general public and potential accidents, Work Zone Traffic Management Plans which include safety are of paramount importance and should be formulated and implemented by the contractor.

Considering the nature of the project, the following may be the overall objectives of the Traffic Management Plan:

- To make the safety of the public a priority at all times,
- To ensure that all road users including pedestrians, cyclists, and motorcyclists and motorists using the adjacent roads are safe always,
- To ensure that traffic is routed conveniently and within minimum inconvenience around the construction site,
- To make sure that the safety of all on-site workers within the construction site is assured.

The main features of the Work Zone Traffic Management Plan may include the following, but not limited to these areas:

a. Presence of a Site Road Map:

i The contractor is obligated to make sure that there is always a clear site layout plan and the site road map highlighting the areas where major traffic load will be envisaged.

ii The Contractor shall always provide all drivers with a map of the roads authorized for the execution of the works.

iii The Traffic Management Plan must demarcate public vehicle and pedestrian routes from site vehicles and site worker routes. The plan should further indicate areas for loading, unloading, parking, and exit routes.

b. Pedestrian Safety:

i. The contractor must make sure that there will be uninterrupted movement of pedestrians. If need be, make sure they are told in advance and there is an explanation to such.

The storage and loading of construction materials should be away from the areas of frequent pedestrian activity like community foot paths, access to any public place or residential area, markets etc.

ii. During the construction activities, the roads in the vicinity of the project site shall be kept clean all the times to secure unhindered pedestrian movement.

iii. The trenches excavated for installation of sewage pipeline and construction of manholes should be protected by warning tapes, danger flags and other danger signage to warn public and prevent general access.

c. Traffic Safety and Control:

i. There should be specific indication in site layout plan about general traffic control in the project area, and specific work sites that may require specific traffic control.
ii. The contract is supposed to install road message signs (sign posting) to warn possible traffic congestion at work area.
iii. If possible, the contractor should allocate time slots and schedules for construction vehicles to avoid haphazard way of operating with the heavy construction vehicles. And further, all demolition and excavation will be adhering to the allocated time slots to avoid traffic congestion.
iv. Road closures of short durations must be done where possible only during non-peak hours, for example during afternoon.
v. The road closures must be initiated in a manner that allows the traffic to slow down at least 500 m ahead of such closures.
vi. In cases of road closures, alternative traffic route should be provided to control traffic congestion and public inconvenience.
vii. All detour must include following requisites:
    - The nearby community members must be informed prior to detouring the road by the contractor. Tentative timeline of such detours must also be provided to the community members.
    - Location of access roads /detours shall be done in consultation with the local community especially in important and sensitive environments such as school crossing, markets etc.
    - Traffic divergent should be demarcated through appropriate informatorily road signs. Such detours should also have adequate safety measures such as temporary signalling system, warning signs and regulatory signs, humps.

d. General Traffic Accident Prevention Measures:

All the drivers employed by the Contractor should have valid driving license.

i. All the drivers must be fully sensitized about the speed limits and the need for strict compliance to the safety rules.
ii. Regular speed monitoring of construction vehicles respective to the guidelines need to be conducted.

iii. All traffic related issues should be recorded on daily basis. Action should be taken to avoid any disturbances to the public immediately by the Project Contractor. When road accidents it has to be reported to the relevant authority.

In view of the Traffic Management Plan, some of the warning signs (symbols or text) during construction are shown below but not limited to these:

- Provision of stop-go flagmen shall be deployed to ensure the safe interaction of pedestrian and vehicles;
- Ensure “men working” signs be placed 200 meters before the area of which works are being conducted. Similarly, “Road Narrows" and "No Overtaking "signs;
- Ensure speed Limit" signs shall be placed 150 meters before the area of which works are being conducted. (The maximum speed limit is (50Km/hr.); and
- Ensure delineator traffic Cones used to indicate the areas along in which work is being conducted to effectively protect road users from the hazards arising from construction activities

Appendix 11: Environmental Social Commitment Plan (ESCP)

An Environmental and Social Commitment Plan (ESCP) sets out material measures and actions to be carried out or caused to be carried out by the Recipient, including the timeframes of the actions and measures, institutional, staffing, training, monitoring, reporting arrangement and grievance management. The Contractor should refer to the World Bank website through the following link:

https://thedocs.worldbank.org/.../General-ESCP-E...DOC.

Appendix 12: Storm Water Management Plan

A Storm Water Management Plan (SWMP) is a detailed plan that describes or outlines the strategies to be followed by DCE management for managing, treating and directing runoff around the newly constructed buildings. The aim of a SWMP is to minimize the adverse impacts of storm water runoff around the building and immediate surroundings on the biophysical and social environment, while protecting public health and safety. An effective SWMP will maintain the integrity of the water resources, habitats around the project area and reduce the risk of property damage from flooding.

Proposed Contents of the Storm Water Management Plan

The SWMP should:

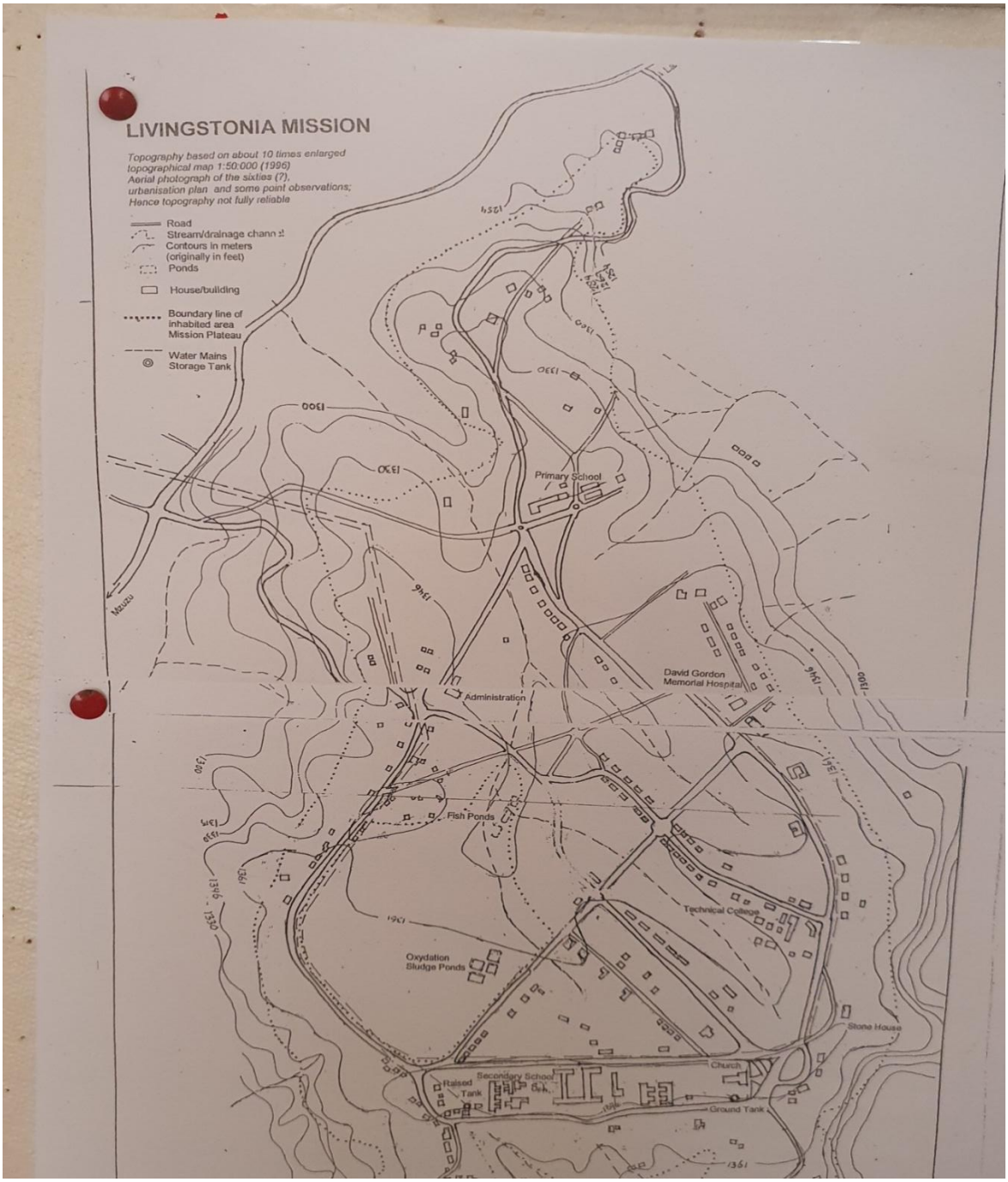
- provide details of every aspect of a worksite, from the facilities' name and date of the project to any equipment being used and potential pollutant sources.
- outline active controls or BMPs that will be used to control storm water runoff and reduce erosion/sedimentation. Some of the features which the contractor may consider installing at and around project area are:
  - permeable pavements
  - drainage ditches
  - sand filters
  - vegetated filter strips,
  - Rain barrels and cisterns (containers that capture and store storm water for non-potable beneficial reuse, such as irrigation, toilet flushing or general cleaning of premises
  - Vegetated swales (open & gently sloping channels designed to convey and treat storm water runoff
  - Bioretention Areas/Rain Gardens (vegetated depression in a landscape that collects, treats, and recharges storm water into the ground
  - Curbs and Gutters

Appendix 13: Detailed Architectural Designs

Please note that These are attached as separate files

Appendix 14: Title Deed of Livingstonia Technical College – NOT AVAILABLE

Management was only able to provide this map which only shows boundaries of Livingstonia land.

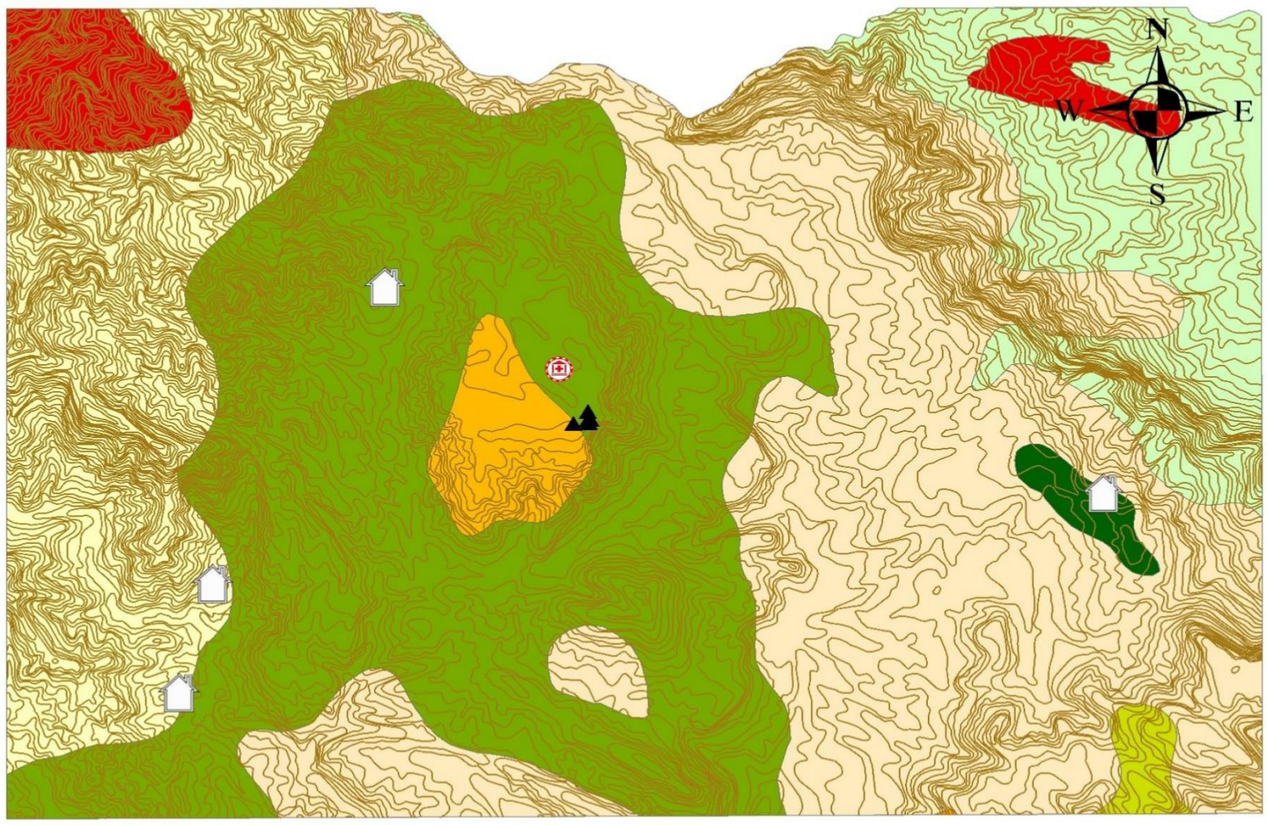


Appendix 15: Topographic Maps of Livingstonia and Mzuzu Technical Colleges

Please note when printing that this is on A# paper

a. Topographic Map of Livingstonia Technical College (1:50,000)

MAP OF LTC SHOWING PROJECT PROPOSED SITES



1:50,000

Legend

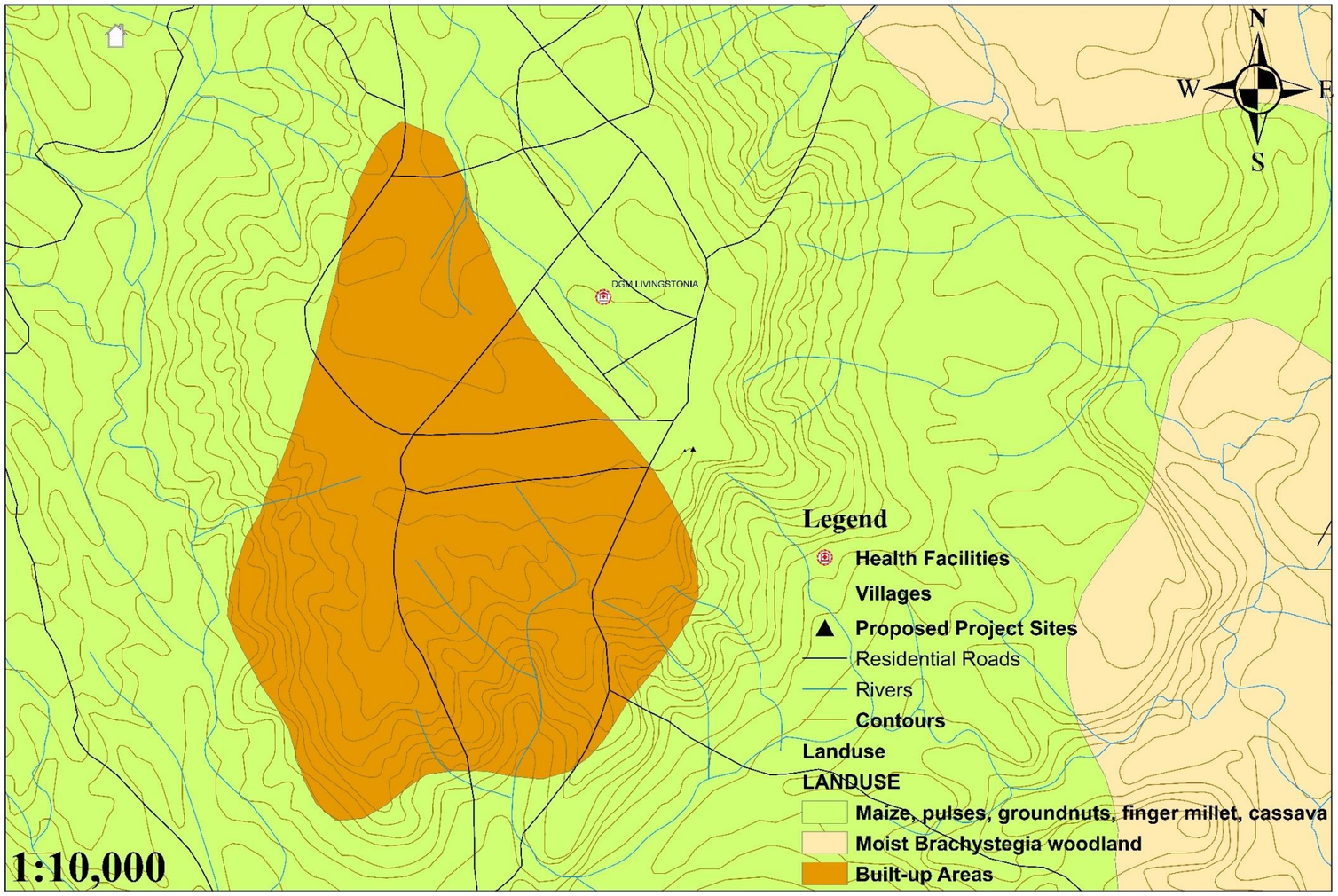
- Health Facilities
- Villages
- ▲ Proposed Project Sites
- Contours

Landuse

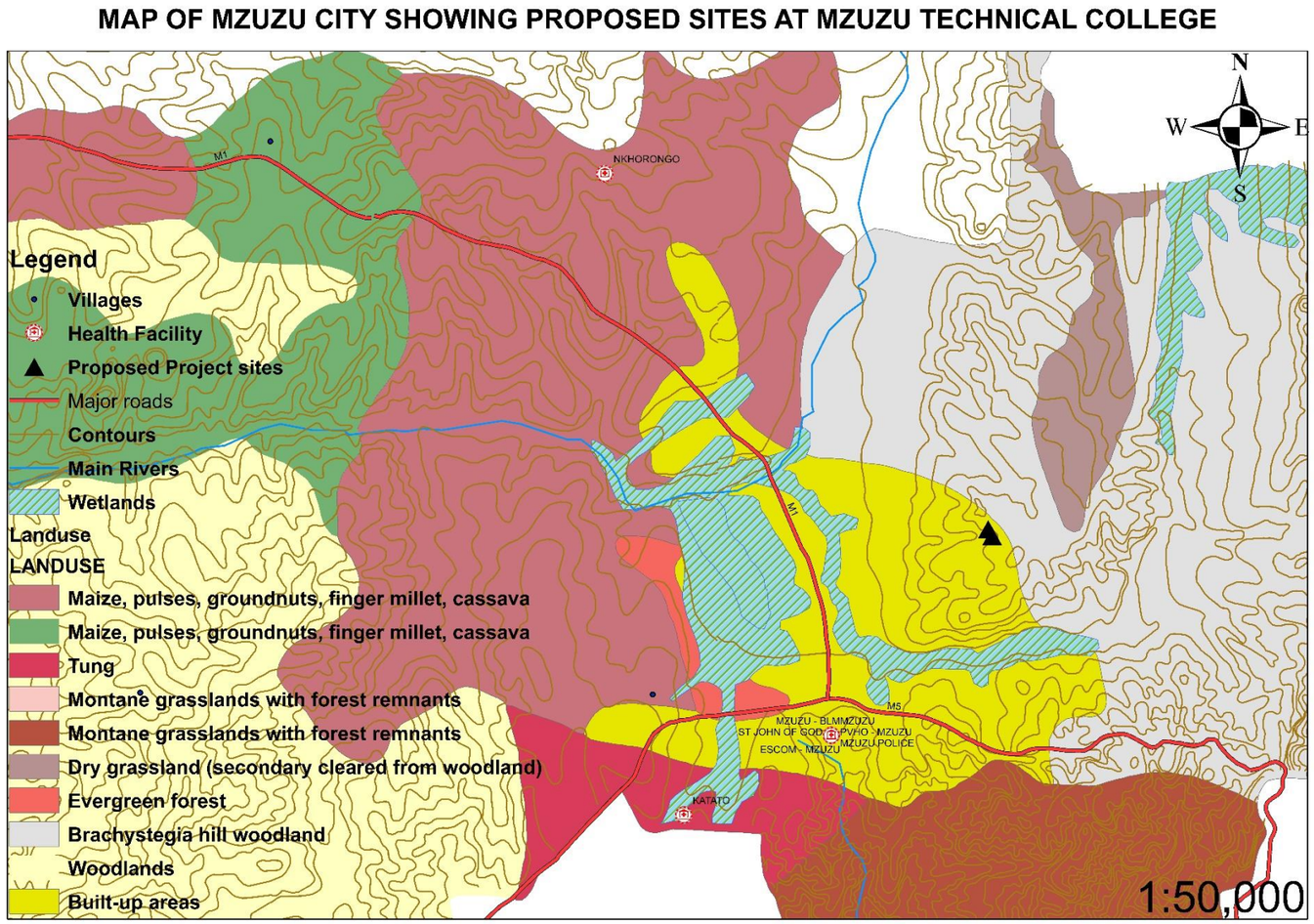
LANDUSE

- Rainfed Cultivation
- Maize, pulses, groundnuts, finger millet, cassava
- Cassava, maize, banana
- Maize, pulses, groundnuts, cotton, cassava
- Montane grasslands with forest remnants
- Montane grasslands with forest remnants
- Moist Brachystegia woodland
- Moist Brachystegia woodland
- Moist Brachystegia woodland
- Moist Brachystegia woodland
- Brachystegia hill woodland
- Brachystegia hill woodland
- Built-up areas

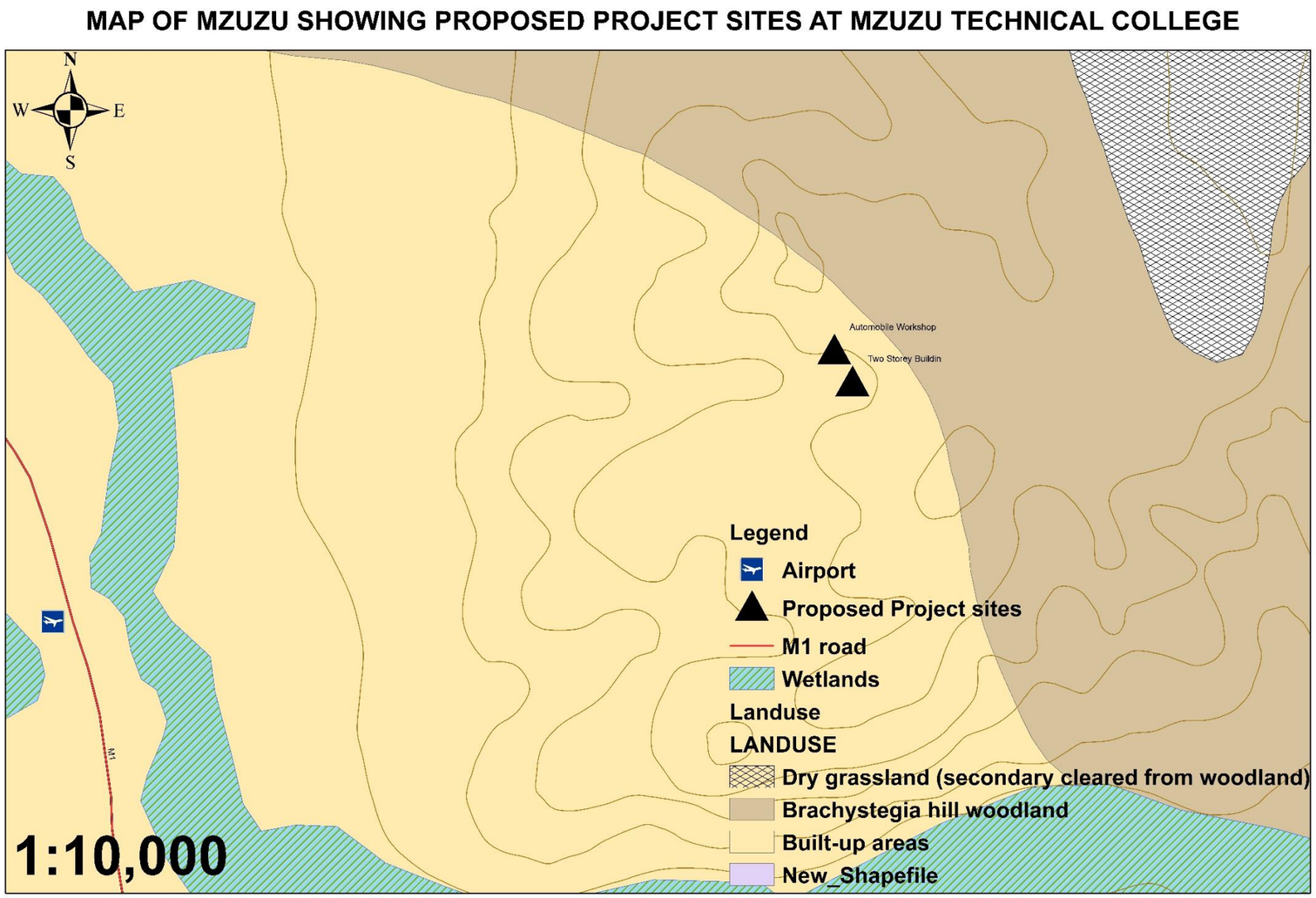
b. Topographic Map of Livingstonia Technical College (1:10,000)



c. **Topographic Map of Mzuzu Technical College (1:50,000)**



d. Topographic Map of Mzuzu Technical College (1:10,000)



s

Appendix 16: Examples of Application Forms for Permits and Licenses

Please double click on the first page of the application form

PP/F001

Malawi Government

PHYSICAL PLANNING ACT

APPLICATION FOR DEVELOPMENT PERMISSION

(*Section 46(1) (b)*)

This form should be completed in For Official Use Only *quadruple* and sent to:

The Commissioner for Planning* Physical Planning Committee*

File No: .....

Application No:

Location/

Plot No:

Payment Received GR. NO.:

Date Received:

.....

.....

.....

.....

.....

(Delete whichever is not applicable)*

I/WE hereby apply for permission to carry out the development described in this application and on the attached plans and drawings.

Signed: Date:

.....

.....

SIGNED BY REGISTERED PHYSICAL PLANNER:

.....

Name of

LIQUID FUELS AND GAS (PRODUCTION AND SUPPLY) ACT

(Cap. 50:03)

LIQUID FUELS AND GAS (PRODUCTION AND SUPPLY)

REGULATIONS 2008 **(reg. 28)**

FIRST SCHEDULE , PART IV

APPLICATION FOR LICENCE TO STORE LIQUID FUELS AND GAS

SECTION A FORM LFG 4

PARTICULARS OF APPLICANT

A.1 Full Name of Applicant ……...

……

A.2 Address of applicant, or in the case of a body corporate, the registered office

……

……

A.3 Telephone Number of Applicant ……..……. ……..……. A.4 Fax Number of Applicant ……..……. ……

A.5 E-mail of Applicant ……..

A.6 Contact Person

FORM 1A

NATIONAL CONSTRUCTION INDUSTRY ACT

(CAP. 53:05)

APPLICATION FORM FOR PERMANENT REGISTRATION OF

BUILDING, CIVIL, ELECTRICAL AND SPECIALIST CONTRACTORS

To: The Chief Executive Officer
National Construction Industry Council (NCIC)
Private Bag A 146
LILONGWE
Tel: (+265)887829505
Email: ncic@ncic.mw Website: www.ncic.mw

Category of the construction industry for which this application is submitted (*please tick)*:

Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
	50M	100M	200M	500M	1Bn	5Bn	10Bn	Unlimited
Building Category								
Civil Category								
Electrical Category								

Note: M = Million; Bn = Billion

Specialized Category	**Micro**	**Small**	**Medium**	**Large**
	50M 193	100M	500M	Unlimited
Area of specialization *e.g. Borehole drilling, Painting, Mechanical Services, Structural Steel Fabrication, etc)*				

GOVERNMENT OF MALAWI
OCCUPATIONAL SAFETY HEALTH AND

WELFARE ACT

APPLICATION FOR A REGISTRATION

OF A WORKPLACE
(Section 9 of the Act)

For Official use only

1. Region……..…..
2. Received……..…...
3. Cert. Issued……Date……
4. No. of Cert…….
5. Fees received…… Gr. No…….

FORM LAB/W/1

PARTICULARS TO BE SUBMITTED BY OCCUPIERS OR INTENDING OCCUPIERS OF WORKPLACES

I hereby apply for the registration or renewal of the premises, of which particulars are given below, as workplace.

1. The workplace

   (a) Name of workplace_____

   (b) Postal address of workplace .....

   _____Telephone No._____

   (c) Date of Occupation_____

2. The owner or Occupier

   .....

   .....

   (a) Name(s) of Occupier (i)

   (ii)

   (iii) _____

   (b) Postal address of occupier_____

   .....

(c) Physical address of Occupier .....

.....

_____Email Address

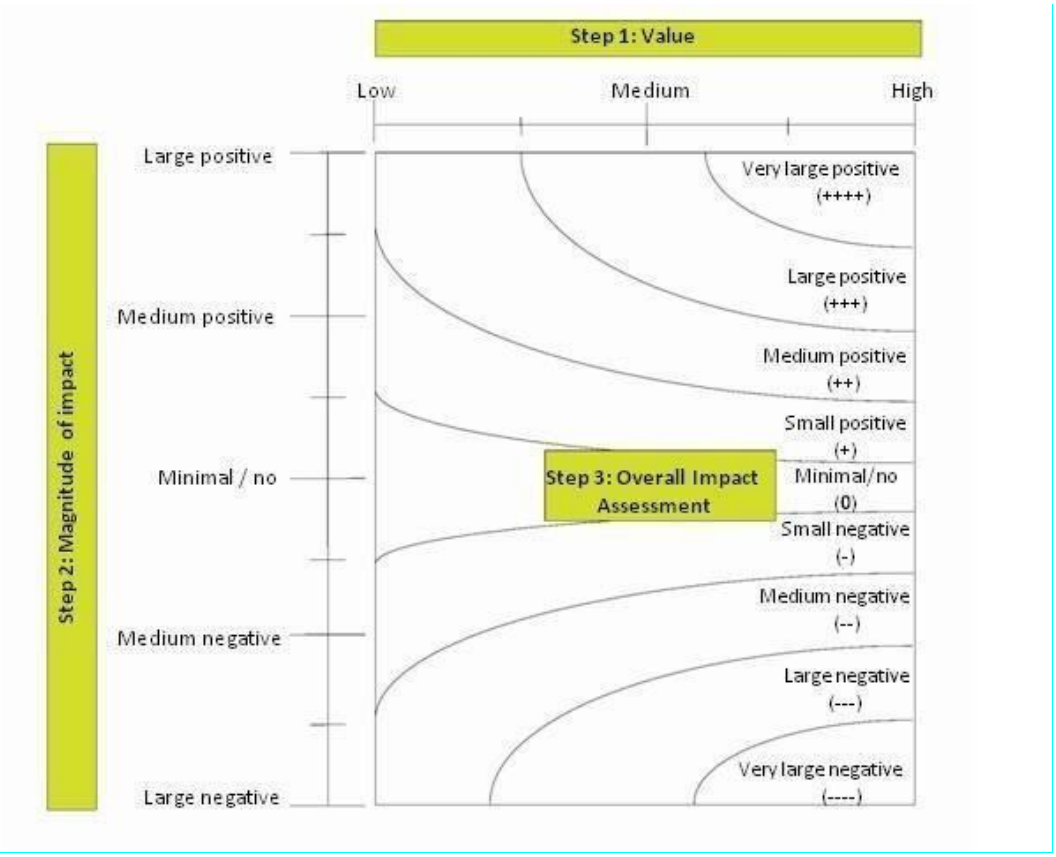
Appendix 17: Three-Step Methodology

The identified impacts were rated from very large negative to very large positive impacts. The overall analysis of impacts using the three-step procedure, is based on standard environmental assessment approaches described below. The advantage of this method is that is simple and allows for a systematic approach to impact assessment.

Rating	Description
Very Large positive (+)	A very beneficial impact may be sufficient by itself to justify the implementation of the project. The impact may result in permanent positive change
Large positive (+)	A beneficial impact which may help to justify the implementation of the project. These impacts would be considered by society as constituting a major and usually a long-term positive change to the (natural and / social) environment.
Medium positive (+)	A positive impact. These impacts will usually result in positive medium to long-term effects on the natural and / social environment.
Small positive (+)	A small positive impact. The impact will result in medium to short term effects on the natural and / social environment.
Minimal/No Impact	No or insignificant impact
mall negative (-)	An acceptable negative impact for which mitigation is desirable. The impact by itself is insufficient even in combination with other low impacts to prevent the development from being approved. These impacts will result in negative medium to short term effects on the natural and / social environment.
Medium negative (-)	A minor negative impact requires mitigation. The impact is insufficient by itself to prevent the implementation of the project but which in conjunction with other impacts may prevent its implementation. These impacts will usually result in negative medium to long-term effect on the natural and / social environment.

Rating	Description
Large negative (-)	A moderate negative impact may prevent the implementation of the project. These impacts would be considered as constituting a major and usually a long-term change to the (natural and / social) environment and result in severe changes.
Very large negative (--)	A major negative impact may be sufficient by itself to prevent implementation of the project. The impact may result in permanent change. Very often these impacts are immitigable and usually result in very severe effects. The impacts are likely to be irreversible and/or irreplaceable.

Environmental impacts are a combination of location and the characteristics of a given project. In keeping with this understanding, the environmental impact assessment is conducted according to a **"3-Step Methodology"** which is based on three steps presented in the diagram and description below. The advantage of this method in contrast to other methods is that is rather simple and intuitive yet allows for a systematic approach to impact assessment.



Step 1: Description of baseline situation and where possible ascribing a value to the project area (s) according to a set of criteria (presence of rare species, human disturbance etc.).

Step 2: An assessment of the magnitude of project impacts according to another set of criteria (duration, extent, reversibility etc.)

Step 3: Magnitude of impacts is combined with value in order to arrive at an impact assessment.

Criteria for Value

In short, the methodology implies that the environmental values of the expected impact are combined with the magnitude of the impacts to give the overall impact assessment. A standard set of criteria is employed to determine the value of the impact zone and the magnitude of impacts.

Environmental Criteria are used to determine the value of terrestrial and aquatic environments are:

- Conservation value of species
- Biodiversity values
- Ecological function of species
- Ecological function of habitats

Social Criteria

The concept of environmental value of an area cannot be directly applied to socio-economic issues. Yet it is important to describe and assess the conditions of local communities in order to allow for an assessment on how a given project will affect these communities. To determine the socio-economic conditions of affected communities a set of socio-economic indicators will be employed. The indicators are:

- Availability and dependency of natural resources
- Ability to cope with natural hazards
- Socio-economic status
- Public health situation
- Cultural flexibility – capacity to adjust to changes
- Capacity of local infrastructure and public institutions

Magnitude

Information on nature and extent of the project will be obtained from engineers. In order to assess magnitude of impact for the selected option the following criteria will be used:

- Size of affected area
- Number of people displaced (magnitude of socio-economic impacts only)
- Duration and reversibility of effect
- Probability of the impact arising

Overall Impact

Since the objective is to optimise the proposed alternative in terms of coming up with mitigation measures, the focus will be on values of uniform sub areas (e.g. biodiversity, vegetation, animals) within the project area. A summary of specific impacts on terrestrial ecology, aquatic ecology and the socio-economic environment is then be provided.

Appendix 18: Attendance Register for National Stakeholders

LIVINGSTONIA TECHNICAL COLLEGE – SAVE PROJECT

DESC CONSULTATION

NO.	NAME OF OFFICER	DESIGNATION
1	Kokiri Banda	AFO
2	Phillip Kondowe	AWRO
3	Gift Nyirenda	EDO
4	FRANK MFUNE	DPD
5	Joyce Chirwita	LACOA
6	Hastings Makonokaye	EMO
7	Bridget Zipale	ADSO
8	Anastazia Mwangulu	Intern - ENV
9	Thandiwe Chirwa	DPW
10	George Kapululu	SIE
11	Robert Chidotho	DCDO

DISTRICT COMMISSIONER
RUMPHI DISTRICT COUNCIL
14 APR 2021
P.O. BOX 224
RUMPHI.

DISTRICT COMMISSIONER
MZIMBA DISTRICT COUNCIL
14 APR 2025
P.O. BOX 132
MZIMBA, MALAWI

PROJECT: Construction of Workshop, ICT lab, Store Room, Server Room Studio

PURPOSE: DESC

DATE: 14/04/2025

NAME	POSITION	ORGANIZATION	PHONE NUMBER	EMAIL	MORNING	AFTERNOON
James Pelani	EDO	Environment	[redacted]	jame2pelani@yahoo.com		
Don A. Kamndi	Rep.	CSO	[redacted]		✓	
Themba Jere	Planning officer	Agriculture	[redacted]	thembajere@gmail	✓	
Tamandani [illegible]	Extension	Agriculture	[redacted]	[illegible]@gmail	✓	
Samuel Kalumbi	Extension	Agriculture	[redacted]	samuelkalumbi4	✓	
Gerald Bulukutu	Extension	Agriculture	[redacted]	bulukutugerald2173@gmail.com	✓	
Sharon Mwagalimba	ACDO	Com Dev	[redacted]	mwagalimbasharon@gmail.com	✓	
Mervis Mkhalipi	FAO	Agriculture	[redacted]	mkhalipi13@gmail.com	✓	
Bertha Mwamlima	PO	Agriculture	[redacted]	bertha191@gmail.com	✓	
Dennis Kawonga	Extension	Agriculture	[redacted]	denniskawonga92@gmail.com	✓	
David Ngoma	AO legumes	Agriculture	[redacted]	ngoma.david@yahoo.com	✓	
Henry Limbani	G.O	MoE	[redacted]	[illegible]@gmail.com	✓	
Mwiza Ngoma	FNO	Agriculture	[redacted]	mwizangoma35@gmail.com	✓	
Kingsley Jere	SG	Mzilitha	[redacted]	kingsleyjere@gmail.com	✓	
Ruth Kajambala	Lands officer	MDC	[redacted]	ruthkajambala@gmail.com	✓	
Awonzi Simkonda	Fisheries Off	MDC	[redacted]	[illegible]@gmail.com	✓	
Stephen Nyirenda	Forestry Off	Forestry	[redacted]	stephennyirenda29@gmail.com	✓	

Appendix 19: Attendance Register for Staff, Students and Local communities

SKILLS FOR A VIBRANT ECONOMY (SAVE) PROJECT.

THE WORLD BANK

Institution; Mzuzu Technical College

REGISTER

MEETING NAME: 2 Storey BUILDING STAKEHOLDER ENGAGEMENT MEETING - STUDENTS VENUE MZUZU TECH. COLLEGE DATE 14/4/25

NO.	NAME	DESIGNATION	INSTITUTION	CONTACT DETAILS (EMAIL)	SIGNATURE
1	Selina James	Student	Mzuzu Tech	[redacted]	S. James
2	Maxwel Chipeta	Acc Student	Mzuzu Tech		
3	Chawanangwa Gondwe	CE. Student	MTC		
4	Zondiwe Kamanga	Student	Mzuzu TC		Z. Kamanga
5	Takondwa Kabaghe	Student	MTC		
6	Austin Zima	Student	MTC		
7	Acren Hawa	Student	MTC		A. Hawa
8	Rabecca Adnsen	Student	MTC		R. Adnsen
9	Doreen Gama	Student	MTC		D. Gama
10	Adeim Nthala	Student	MTC		
11	Neckeson Chana	Student	MTC		
12	Afusaghe Gondwe	Student	MTC		
13	Esteny Nglambi	Student	Mzuzu		E. Nglambi
14	Violet Chirambo	Student	Mzuzu		V. Chirambo
15					

1

SKILLS FOR A VIBRANT ECONOMY (SAVE) PROJECT.

THE WORLD BANK

Institution; MZUZU TECHNICAL COLLEGE

REGISTER

MEETING NAME: TWO STOREY BUILDING STAKEHOLDER MEETING WITH COMMUNITY LEADERS VENUE MZUZU TECHNICAL DATE 14/4/25

NO.	NAME	DESIGNATION	INSTITUTION	CONTACT DETAILS (EMAIL)	SIGNATURE
1	Meckson Mwalwanda	Blockleader	Zolozolo	[redacted]	[signature]
2	Joe Mlowoka	B/Leader	Zolozolo		[signature]
3	David Harawa	Blockleader	Zolozolo		[signature]
4	Symon Chirwa	Block leader	Zolozolo		[signature]
5	Ipiana Simkonda	~~Zo~~ B/Leader	Zolozolo		[signature]
6	Joseph Nhlata	B/Leader	Zolozolo East		[signature]
7					
8					
9					
10					
11					
12					
13					
14					
15					

1

SKILLS FOR A VIBRANT ECONOMY (SAVE) PROJECT.

THE WORLD BANK

Institution; Mzuzu Technical College

REGISTER

MEETING NAME: TWO STOREY BUILDING STAKEHOLDER MEETING - MEMBERS OF STAFF VENUE MZUZU TECHNICAL COLLEGE DATE 14/4/25

NO.	NAME	DESIGNATION	INSTITUTION	CONTACT DETAILS (EMAIL)	SIGNATURE
1	Kondwani Sosola	ESS	MTC	[redacted]	
2	Pamela Chirwa	HOD	MTC		
3	Vincent Mumuli	M&E	MTC		
4	Emmanuel Azalia	INSTRUCTOR	MTC		
5	Melise Chikalu	Secretary	MTC		
6	Modester Tapikla Phiri	Secretary	MTC		
7	Julius Phiri	Principal	MTC		
8	Tsala Banda	Messenger	MTC		
9	Precious Kalete	Instructor	MTC		
10	James Pelani	EDO	Mzuzu DC		
11					
12					
13					
14					
15					

1

Livingstonia List of consultation (Community Members, Staff, and Students)

SKILLS FOR A VIBRANT ECONOMY (SAVE) PROJECT

MINISTRY OF EDUCATION AND MINISTRY OF LABOUR

THE WORLD BANK

IBRD · IDA | WORLD BANK GROUP

LIVINGSTONIA TECHNIAL COLLEGE- REGISTER

MeetingName: STAFF ENGAGEMENT ICT LAB CONSTRUCTION MEETING DATE: 08/04/2025

	Name	Designation	Institution	Phone No	Signature
1	Darius Muwungulu	Team leader	Lvtech	[redacted]	
2	Levie Maulana	Procument	11		
3	Beatrice Chimombo	Coordinator	11		
4	Escollen Yakobe Mbele	ESS	11		
5	Paul Ndovie	Monitoring	11		
6	Isaac Ndovie	Communication	11		
7	Aaron Ngwerewete	member	11		
8	Margret Mzembe	finance	11		
9	Fredrick Mfundawanga	member	11		
10	Ngabuto Muntholi	member	11		
11	Junia Nzomera	member	11		
12	Tionge Msiska	member	11		
13	Harrington Mwafulirwe	Gender	11		
14	Stern Mushali	member	11		
15	Jane Msiska	member			

SKILLS FOR A VIBRANT ECONOMY (SAVE) PROJECT

MINISTRY OF EDUCATION AND MINISTRY OF LABOUR

THE WORLD BANK

LIVINGSTONIA TECHNIAL COLLEGE REGISTER

MeetingName STAKE HONDER ENGAGEMENT ICT LAB DATE: 8/04/2025

CONSTRUCTION MEETING

	Name	Designation	Institution	Phone No	Signature
1	E. Gobede Mtonga	Vice Principal	Livingstonia	[redacted]	
2	Rex E.A.C Longwe	Reverend	Livingstonia		
3	GIFT MYIRENDA	D.E.O	Rumphi		
4	ANTHONY MKANDAKIND	officer Incharge	Chitipa		
5	LONEX MUNTHALI	Area Deve. Chairman	Livingstonia		
6	Mac Lewis Salala	Chief	Livingstonia		
7					
8					
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SKILLS FOR A VIBRANT ECONOMY (SAVE) PROJECT

MINISTRY OF EDUCATION AND MINISTRY OF LABOUR

THE WORLD BANK

LIVINGSTONIA TECHNIAL COLLEGE- REGISTER

MeetingName Student Engagement ICT Lab Construction Meeting DATE: 8/04/2025

	Name	Designation	Institution	Phone No	Signature
1	Martha Nyirenda	Student	Livingstonia	[redacted]	M Nyirenda
2	Grace Kangoma	"	"		Kangoma
3	Rita Mateyo	"	"		Mateyo
4	Lucia Manuel Mhundira	"	"		Mhundira
5	Happy Kaliya	"	"		Kaliya
6	Faith Jeremiah	"	"		F. Jeremiah
7	upendo Mwambene	"	"		Mwambene
8	Bertha Njeleza	"	"		Njeleza
9	Esther Mangani	"	"		Mangani
10	Mthimbiko Mwakinde	"	"		Mwakinde
11	Rachael Mgula	"	"		R Mgula
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Appendix 20: DESC Consultative Meeting Minutes

Rumphi DESC Consultative meeting, 14th April 2025

NO	DEPT	DEPT/ORG	ISSUE RAISED	RESPONSE
	Labour	Labour Office	We are concerned about labour issues related to the project.	Labour issues will follow labour laws. It is advised to hire unskilled workers from the nearby communities.
	Public Works	District Works Office	This is a good project for the district, but we are worried about how the project's negative effects will be managed.	We mentioned in the presentation that these effects will be addressed in the Environmental and Social Management Plan (ESMP).
	Health	District Environmental Sub-Committee (DESC)	We suggest building pavements near the hostel because there are none in that area. Will you add them?	We noted this and will recommend adding pavements. This supports what we already observed.
	Forestry	Forestry Office	Please consider health and safety when using gas. This will help the project succeed and stay useful after completion.	Gas has been recommended, but the type is not yet clear. Your suggestion to use biogas will be considered.
	Irrigation	Irrigation Department	Please replace planks with concrete. Also, involve construction engineers to check the design and structure.	We agree and will recommend involving engineers in the ESMP.
	Aquaculture	Aquaculture Office	The ESMP should show how many trees will be cut. Cutting too many trees could lead to floods.	Once we have the design, we will include this in the ESMP. We will also plan for soil conservation.
		Community/Stakeholder Input	Information is not being shared well. Please come and give us updates. It will help	That's why we want to define your roles. We also want to set how often monitoring should happen.

			us monitor the project better.	
	Fisheries	Fisheries Department	Rumphi is important for fish farming. Please involve fisheries students from Livingstonia Technical College in future.	I will see how to include this in the ESMP.
	Education	Education Office	When will the project start?	Construction is planned to start in December 2023.
	Water	Water Department	How will you convince people to use concrete instead of wood?	Concrete is more durable and will last longer. That will convince people to use it.
		Livingstonia Technical College	The college needs more clean water. The current system is owned by the Synod. Will you use that system or create a new one?	Water now comes from the mission, but staff at the college suggest asking Northern Region Water Board to add more water.
		Synod/Mission	How is the mission involved in this project?	I haven't seen the Synod involved yet. I will contact them to find out how they are taking part in the project.

Minutes of the meeting with Mbelwa DESC members at Mbelwa District Council starting from 10:40hrs

Background of the proposed project

The consultant began her presentation by asking DESC members what they know about the SAVE project? Members answered that they don't know anything about the SAVE project and some thought it was the Save the Children Project. Then the consultant explained the SAVE (Skills for A Vibrant Economy project. she further said that she called for the meeting to meet DESC members because Mzuzu Technical College in Mzuzu City IS in Mbelwa District Council. Therefore, there was need to get vews, opinions and comments from DESC members regarding the Mzuzu Technical College SAVE project.

Members asked questions and gave comments regarding the presentation on Mzuzu Technical College SAVE project.

Stakeholder roles to play

After the discussion time the consultant asked members to indicate what role they would want to play in the ESMP. The consultant said that she would not want to impose the responsibility on particular ministries or departments because experience shows that members don't show commitment but this time she wanted those members who feel would play a role in the monitoring of the ESMP should indicate their role.

Major Issues raised

M'mbelwa DC DESC Consultative Meeting for Mzuzu Technical College (14th April 2025

NO	MBELWA DISTRICT COUNCIL OFFICE	DEPT	ISSUE RAISED	HOW THE ISSUE WAS HANDLED
1	Lands Office	Lands	How will you dispose of waste from the old building?	The Environmental and Social Management Plan (ESMP) will cover all project stages and impacts. Materials like old ceilings will be assessed to decide whether they should be reused or disposed of. The College will be involved in discussing all possible solutions.
2	Youth Office	Youth	This is a big project. How much money will be spent on Mzuzu Technical College?	The full budget is not yet available because the design is still being worked on. We expect the detailed designs to be ready by next week. From past experience, we know that using burnt bricks is not allowed for such projects.
3	EDO	Environment	Mzuzu Technical College has few trees. Are there plans to plant more trees to improve the environment?	We will recommend tree planting as a way to improve the environment. The Forestry Office will assess the soil and give advice on which trees are best for the area.

4	Health Office	Health	Have environmental risks like gas emissions or radiation from the 50 new computers been considered?	All environmental risks will be assessed. High-tech risks such as radiation will be included in the ESMP. We will also develop supporting plans such as a Waste Management Plan and a Traffic Management Plan to go along with the main ESMP.
5	Agriculture	Extension	Have you considered noise pollution during construction? Can work be done while students are on holiday instead?	Noise issues were also raised by students. This will be included in the ESMP. We'll talk to the Ministry of Education and the College to see if there are extra rooms where classes can continue. Most equipment is not in use currently, so it may not cause serious disruptions.
6	Labour Office	Labour	During construction, please consider: - Sexual harassment - Migrant workers - HIV awareness - No child labour - Clear contracts - Health concerns like cholera and handwashing facilities	The ESMP will follow Malawi and World Bank laws and standards. We will hold awareness workshops before construction starts. A temporary market area will be given to women who sell food. We have a Health and Safety Plan, and there is already a Grievance Redress Committee in place.
7	Forestry	Labour	Since the project may take time, have you planned for: - Safety - Noise - Dust	These concerns will be handled in the ESMP. The plan follows Malawi and World Bank standards, which include strong measures for safety, noise control, and dust management.

Appendix 21: Issues raised by LTC Members of Staff, Student Representatives,

NO	DEPT	DEPT\ORG	ISSUE RAISED	RESPONSE
Livingstonia Community Members				

NO	DEPT	DEPT\ORG	ISSUE RAISED	RESPONSE
1			How long will the project take since the project is ending next year	The project will take 9 Months to construct, and it will end within the project implementation period
			will the additional structures not increase the water problems that is already there? as you are expanding, consider the availability of water	The Institution should guide the project on where to get water for construction, for example rivers or shallow wells
			On labour, what have you prepared? We see contractors coming with their labourers from far. For example, coming from Mzuzu City. What have you prepared on this project	Most of the time contractors come to the project area with their own labourers, the ones they have worked with on previous projects. As I have already said this is World Bank project, they will use World Bank and Malawi regulations. The contractor is supposed to submit a list of workers. Priority has to go to people from the local area. It is your role to monitor people employed in the project to see whether the qualifications and skills required are found in the area.
			What type of bricks would you use considering the environment?	All other materials that are not environmentally friendly are not welcome. These days they do go for concrete bricks – environmentally friendly materials.
			We don't want any politics in this project; selection of contractor should be transparent; we have seen another World Bank funded project constructing	Normally, that is an experience that certain contractors are favoured by politicians. I will not be able to say anything on that. What is important is contractor capability and experience. I think Malawi government has learnt from cyclone Freddy etc. Structures falling down, destroyed and

NO	DEPT	DEPT\ORG	ISSUE RAISED	RESPONSE
			CBCCs being suspended; how sure should we be that this will not happen in this project?	every Malawian has seen this. So many Malawians are angry with substandard work. That is why we are asking you to indicate your role on the project because in the ESMP I will make recommendations for a contractor that has what we call Contractor Environmental Management Plan.
			We have seen many projects being carried out without considering constructing drainage systems; What plans do you have so that after the construction works on this project the drainage system is taken care of?	World Bank is very strict on the drainage system; we have a section of Waste Management and a section of storm water management system so all drain water flow into proper channel. There is no problem for storm water go into rivers but waste water we don't want to go into the rivers. to protect people and the environment.
			What will the contractor do for the area, as a corporate social responsibility?	On this, I have to ask because I don't think the contractor will be in a position to do a corporate social responsibility activity. This is a government project and I am not sure if the contractor will be asked to do other things other than the subscribed work. I have to ask or consult.
Livingstonia Technical College Instructors and Health Personnel				
			There have been changes in terms of designs. what are you doing to prevent further changes	I think at the end of the meeting you have to share us information about the new changes.
			On the issue of renovating the boys'	During our consultation with community members two people asked why we are

NO	DEPT	DEPT\ORG	ISSUE RAISED	RESPONSE
			hostel using concrete, the issue is not history because if we use wooden planks, as time goes, it will rot again and we don't have money for renovations. This is our chance to have a permanent or long-time floor.	bringing in tiles instead of wood that has been used. They say this is a national monument, so why do you want to change from use of wooden planks? The answer is simple we want durable and sustainable development, hence the use of concrete.
			We have water problems here at Livingstonia and the problem can only be sorted out if the Mission surrendered manning the water system to the water board.	We also had a question on water, during our consultation with members from the community they were asking 'will the additional structures not increase the water problems that is already there?' as you are expanding, consider availability of water. So, I will make recommendations as well in ESMP about finding new water source for the college.
			PIU is the one identifying the contractor, so we have nothing to say	Livingstonia Technical College and Mzuzu Technical College have one contractor
			We need timely information from designer so that we priorities.	Once the designer has finished the design, they will give us the drawings.
Livingstonia Technical College Students Union				
			We are looking forward to the fulfilment of the project because it has been burdened from the beginning of our	

NO	DEPT	DEPT\ORG	ISSUE RAISED	RESPONSE
			courses to now; a few come and stay at this college. We hope in future will have more students coming and staying here.	
			I hope in two- or three-years' time Livingstonia will be a very good place. I hope the place will look nice.	
			Consider us, there are construction courses here and some of us are finishing our studies in July and we want the contractor to involve us in the project.	Recommendation will be made on employment issues, to follow Malawi labour laws of employment to consider local representative and you will be considered as local because you were here.
			Just a comment: you are transparent here and we expect transparency during the whole project period.	This is noted
			When do you think the construction work will commence?	According to what the principal said by December, 2023 the project will commences.

Appendix 22: Issues raised by MTC Students

Background of the project

The consultant began by asking the members (students0 whether they know the meaning of ESIA or ESMP. She elaborated that whenever a project takes place (any project) it is liable of bringing some changes and the change can be anxiety etc. These changes might be positive impacts or negative impacts to the environment. Because of these changes there is need to consult potential affected people to hear whether they welcome the proposed project or not? Ask them what they think would be their potential benefits or potential disadvantages. The students said they don't know what ESIA or ESMP is. After explaining what ESIA or ESMP mean, the consultant continued her presentation on SAVE project.

Discussion

This was time for members to ask questions and present their comments regarding the proposed project. Members expressed gratitude for the proposed project because the coming in of the proposed additional courses will increase number of courses offered at the Mzuzu Technical College.

Role to play

The consultant explained to members that there is need to indicate what role stakeholders would want to play in the proposed project so that it is not imposed on them. Only those who want to play a role in the project will be contacted and therefore will be committed to see suggested recommendations in the ESMP being implemented.

Closing

After absorbing all issues regarding the proposed project then the meeting closed at 17:20hrs

Major issues raised

No.	Mzuzu Technical College students	Issue raised	How the issue was handled
1	Student	We welcome the project because, we get distracted during rainy seasons because of the damaged ceiling, so the rehabilitation on the ceiling is very much welcome	Noted.

2	Student	We want to know; what arrangements are put in place for us to continue learning during the time construction works will be taking place.	The school need to provide an alternative room for learning during the time of construction
3	Student	We very much welcome the ICT Centre; there are no materials in the existing ICT laboratory. Our expectation is that the coming in of the ICT Centre will bring us the much needed equipment for our practicals.	Noted.
4	Student	The 2-storey building will uplift the face of Mzuzu Technical College.	Noted.
5	Student	The coming in of fabricating and welding courses will increase course choices. It is also an answer to those whose dream is to study fabricating and welding.	Noted.
6	Student	Every time new security guards are employed, we hear of them dating girls here. Therefore, we anticipate it happening with men working on the proposed construction project.	We recommend sensitization meetings or trainings before, during and construction work.

7	Student	We welcome the project. I came here in 2020 and have never seen any development project taking place. Most equipment are outdated, not functioning, so bringing in of new equipment will make us relevant to the corporate world – we will have hands on experience.	Noted
8	Student	Mzuzu Technical College is porous, there is no fence here, hence compromising on security	The contractor should be made aware that the college is porous for him to get prepared on security management plan.
9	Staff	There are so many projects which need to be financed. Will the project support the other projects?	The project has a budget limitation and cannot support the other projects
10		The project should use stronger materials	
11		How will the water and electricity bills be solved	There will be an agreement between the institution and the contractor

12		PIU is the one identifying the contractor, so we have nothing to say	You will be consulted on other issues but not in the procurement processes
13		We need timely information from the designer so that we can prioritise.	You will be informed when the contractor will start working

Appendix 23: Minutes of Consultations with Community Representatives from Zolozolo East Ward which is closest to Mzuzu Technical College.

The consultations with the Ward Councillor and Block Leaders who represented the communities around Mzuzu Technical College (MTC) were held virtually. Below are minutes of the consultations:

Ward Councillor

- I represent the community but was not officially communicated to. What I can say is that as a community, we welcome the development project. Once the construction of the buildings are completed, it will uplift the face of Mzuzu as a city and the technical college.
- As leaders, we have an opportunity to have one child get educated at the College half the fees, therefore the coming in of other programs will give our children an opportunity to study more courses.
- He also stated that he would wish to be included in the Grievance Redress Committee because some issues which may arise from the project will need input from the councilor.
- In terms of the role to be played, he indicated that since they are eyes of the community, he would may be of help where security issues are concerned because once the contractors bring in their materials some people might want to steal from them (contractors).

Block Leader

- He stated that the community welcomes the project, despite not receiving official communication from the college.
- He was advised that there is need to enforce security because Mzuzu Technical College is porous, in terms of security; yes there are security guards but there is no fence.
- This is an opportunity for our children to get employment at the construction project

Block Leader

- He said that he very much welcomes the project even though he had not been officially informed about the project.
- He stated that there are several benefits from the project such as:
  - Increase in student intake with the coming of new courses
  - Lifting the face of Mzuzu City in general and the college in particular.

- He stated that the block is usually given an opportunity to have one child get educated at the college at half the fees. He stated that with the improvement he hopes and expects that the number will be increased.

Major issues raised

No.	Mzuzu Zolozolo East Ward		Issue raised	How the issue was raised
1	Ward Councillor		I was not officially communicated to. I represent the community and what I can say is that we welcome the development project. Once the construction of the buildings is completed, it will uplift the face of Mzuzu as a city and the technical college in particular.	Comment noted
2	Ward Councillor		Leaders are given an opportunity to have one child as a beneficiary by paying half the fee. Therefore coming in of extra courses will make our children access more courses.	Comment noted
3	Ward Councillor		I wish ward councilors were included in the Grievance Redress Mechanism Committee because some problems that arise at the college might need our input.	Comment noted

4	Ward Councillor		We are eyes in our community and we may be of help where security issues are concerned because once the contractors bring in their materials some people might want to steal from them (contractors).	Comment noted
5	East Ward Blockleader		Though information was not officially documented, we welcome the development project. My advice is that there is need to enforce security because Mzuzu Technical College is porous, in terms of security; yes there are security guards but a fence is vital.	Noted
6	East Ward Blockleader		This is an opportunity for our children to get employment at the construction project	Noted
7	Community Member		I very much welcome the project even though I was not officially informed about the project. There are several benefits we will get from the project: - Students intake will rise with the coming of new courses - We are given an opportunity to have	

			one child get educated at the college at half the fees therefore I expect more children to benefit.	

Appendix 24: Minutes of the Meeting with Mbelwa DESC Members at Mbelwa/Mzimba District Council

Background of the proposed project

The consultant began her presentation by asking DESC members what they know about the SAVE project? Members answered that they don't know anything about the SAVE project and some thought it was the Save the Children Project. Then the consultant explained the SAVE

(Skills for A Vibrant Economy project. she further said that she called for the meeting to meet DESC members because Mzuzu Technical College in Mzuzu City IS in Mbelwa District Council. Therefore, there was need to get views, opinions and comments from DESC members regarding the Mzuzu Technical College SAVE project.

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Stakeholder roles to play

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Major Issues raised

No	MBELWA DISTRICT COUNCIL	Dept	Issue raised	How the issue was handles
1	Ruth Kasambara	Lands	How are you going to dispose of waste from the old building?	To develop the ESMP, all stages and impacts will be identified, where old ceiling etc will be assessed to see all impacts and come up with measures. We will see whether they will be disposed of or reused. We will constantly be liasing with the College administration to

				see whether there will be other alternatives. All ideas will be put together.
2	C. Chirwa	Youth	This is a big project; how much will be spent on Mzuzu Technical College?	Total budget for the project is not yet out. The design is not ready but am promised that by next week all detailed designs will be out. Through experience, we know that use of burnt bricks is prohibited
3	Rodgers Nkhono	Agriculture	There are few trees at Mzuzu Technical College, are there plans to increase the number of trees to beautify the place (Mzuzu Technical College)?	Best practices will be recommended on what to plant. Forestry department should come in and look at the soils and recommend what type of trees will be suitable.
4	Bestilo Nkhwazi	Health	On the provision of 50 computers, have you considered environmental issues. issues of gasses produced or issues of radiation?	We will assess all impacts; if there is anything we are scared of is hi-tech e.g., radiation etc, only key impacts

				will come in the ESMP. We will have subsidiary plans to a bigger ESMP, such as Traffic Management Plan, Waste Management plan etc.
5	Jordan	Irrigation	Have you considered noise pollution – if the project is implemented while students are on campus. Any plans for construction work to be done while students are on holiday?	The issue of noise was also raised by students and it will come up in the management plan. I need to check with Ministry of Education and Mzuzu Technical College whether they have alternatives rooms for classes to continue. In any case most equipment are not working so would not require more room.
6	Russel Mhone	labour	During construction, consider the following: - issues of sexual harassment should be included; - Migrant workers, - HIV, - Recruitment (no child labour),	The ESMP will be in conformity with Malawi and World Bank laws. Before commencement of the project will

			- Contract agreement - Issues on Cholera, handwashing points etc	have sensitization workshops. A temporary market will be allocated to women selling food stuffs etc. We are aware of communicable diseases and there are health and safety management plan. The Grievance Redress Management Committee is existing.
7	Russel Mhone	Labour	The project might take longer have you considered issues on Safety Noise Dust	The ESMP will be in conformity with Malawi and World Bank laws, meaning all these issues will be taken care of.

Appendix 25: Minutes of National Stakeholder Consultative Meeting held in Lilongwe

Self-introductions were made

The meeting started at 9:52am with a prayer then the chairperson welcome members to the meeting. He advised the consultant that every time she is inviting people to a meeting all issues need to be clear in the invitation letters, especially issues on logistics. He said this seeing that majority of the invited members did not turn up.

The national consultative meeting was organized by the SAVE Project Consultant to present to the relevant ministries what she has found after going around the institutions in which she is developing the ESMP for and to get views, opinions and comments from the stakeholders at national level. Therefore, the consultative meeting started with the consultant giving a presentation then she welcomed comments and questions from the participants.

Major Issues\concerns raised

NO.	PARTICIPANT/ DEPARTMENT	ISSUE RAISED	HOW THE RAISED ISSUE WAS ADDRESSED
1	PIU	In-depth consultation with Ministry of Labour, Malawi Environmental Protection Agency and PIU (Project Implementation Unit)	Noted by the consultant
2	Ministry of Gender	The following were recommended to be outlined in the ESMP A. Issues of gender B. HIV C. Child Labour D. Girls getting pregnant by construction workers E. Conflicts between community members and contractor and his workers F. Safety issues (children coming close to construction site) G. GRM to be inclusive	Recommendations taken into consideration by the consultant
3	Consultant	Emerging social risks. There is need for sensitisation meetings to be conducted so that men, women, boys and girls are told of these issues for some people working on the projects might believe in these. Therefore all people need to be informed	Comment noted

4	Consultant	Environmental policy. The consultant noted that institutions don't have environment policy to guide their activities.	Comment noted