MALAWI

MALAWI GOVERNMENT
MINISTRY OF HEALTH

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SKILLS FOR A VIBRANT ECONOMY (SAVE) PROJECT

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN FOR CONSTRUCTION AND OPERATION OF A 120-BED GIRLS' HOSTEL AT LILONGWE TECHNICAL COLLEGE IN LILONGWE CITY, MALAWI.

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Executive Summary

This is an Environmental and Social Management Plan (ESMP) for constructing and operating a 120-bed girls' hostel at Lilongwe Technical College in Lilongwe City, Malawi. This ESMP supports the environmental and social due diligence for activities financed by the World Bank under the Skills for a Vibrant Economy (SAVE) Project which has moderate risks according to World Bank categorization. The Government of Malawi is implementing the SAVE project through the Ministry of Education and the Ministry of Labour and Vocational Training, with funding from the World Bank. The overall project aims to improve access to market-relevant skills programs in priority areas of the economy, ensuring equity in skills training with the empowerment of women and girls and vulnerable youth through targeted skills in priority areas of the economy and creating a conducive policy environment & strengthening systems and institutional capacity for skills development. The construction of the girls' hostel eliminates barriers to education, these hostels will provide more space for females and security hence empowering young women by enabling them to achieve their full potential.

The proposed site is located within the Lilongwe Technical College campus, an operational institution with an estimated student population of 1,200. The campus is in Lilongwe City along the Lilongwe to Blantyre (M1) road on the eastern side. The college is surrounded by a commercial area locally known as the Biwi Triangle to the east and the residential areas of Mwenyekondo and Falls Estate in the other directions. The site is currently unused and is bordered by the girls' hostels on the southern side, the access road to the administration block on the eastern side, and the students' common room on the western side.

Central to the plan are two proposed hostel blocks. The first block is strategically positioned towards the northwest of the site. Adjacent towards the southeast, is the second proposed hostel block. A well-placed staircase and ramp facilitate vertical circulation. The staircase measures approximately 2.80 meters by 5.00 meters, while the ramp, designed for accessibility, measures approximately 4.85 meters in length. The hostel's rooms are designed to ensure privacy and personal space, crucial for a conducive study and rest environment. The communal toilets and shower areas, each measuring approximately 4.10 meters by 2.40 meters, are centrally located within the hostels. Accessibility is a key consideration in the design, with assisted facilities such as an assisted bath and toilet near the housekeeper's room. The project costs are estimated to be MK2,100,000,000, and the expected construction duration is 12 months. The construction works will require a workforce of not less than 140 people.

The project will have an impact on the environment and people hence the 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. The ESMP preparation involved desk studies, site inspections, stakeholder consultations, and documentation.

Desk studies reviewed project documents, various national legislations, ESF, and the WB EHS guidelines. A site visit on 3rd to 4th April 2025 assessed environmental, social, health, and economic factors, focusing on identifying potential impacts and ensuring compliance with national and international standards. A management and monitoring plan has been provided in this report with an implementation budget of MK39,025,000. The mitigation measures for the risks and impacts shall be aligned with the WB ESF and EHS guidelines as well as GIIPS. The anticipated impacts from the project have been summarised in the subsections below.

Positive Impacts:

- Creation of Employment Opportunities (architects, engineers, and other experts)
- Improved Project Compliance with National Environmental and Social Legislation
- Creation of Local Employment Opportunities
- Availability of Market for Construction Materials and Services, and Other Trades
- Skill Transfer
- Enhanced Educational Environment
- Increased Access to Education
- Promotion of Gender Equality
- Local Economic Development

Negative Impacts:

- Disruption of the Provision of Education Services
- Increased Risks of GBV, SEA, and Defilement
- Community Health and Safety Risks
- Traffic Congestion and Potential Accidents to the Community
- Increased Incidences of Child Labour
- Temporary Air Quality Deterioration
- Elevated Noise Levels
- Occupational Health Risks On-site Affecting Workers
- Discriminatory Working Conditions
- Infectious Disease Impact (spread of STIs, HIV and AIDS, and Covid-19)
- Generation of Solid Wastes, Spills, and Effluent
- Increase in Electricity Consumption
- Increase in Water Consumption
- Increased Soil Erosion and Sedimentation due to Earthworks and Site Clearing
- Risk of Soil and Water Contamination
- Increased Traffic Disruptions
- Health and Safety Risks Due to Fire Hazards
- Increased Generation of Solid Waste
- Increased Risk to STIs, HIV and AIDS

- Increased Demand for Power
- Increased Demand for Water
- Community Health and Safety Risks
- Increased dust emission
- Increased risk of traffic disruption
- Increased risk of community health and safety
- Water pollution risks
- Increased risk of stormwater runoff
- Increased risk of exposure to hazardous material
- Risk of fires or accidents electrical faults,

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List of Acronyms

AIDS	Acquired immunodeficiency syndrome.
CoC	Codes of conduct
COVID-19	Coronavirus Disease 2019
dB	Decibel
DESC	District Environment Sub-Committee
EMA	Environmental Management Act.
ESCP	Environmental and Social Commitment Plan
ESF	Environmental and social framework.
ESMF	Environmental and social management framework.
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standards
GBV	Gender-based violence
GRM	Grievance Redress Committee
GVH	Group Village Headman
HIV	Human immunodeficiency virus
LMP	Labour Management Procedures
MEPA	Malawi Environment Protection Authority
MoE	Ministry of Education
LTC	Lilongwe Technical College
OSH	Occupational Safety and Health
PDO	Project Development Objective
PPE	Personal Protective Equipment
SAVE	Skills for a Vibrant Economy Project
SEA	Sexual Exploitation Abuse
SEP	Stakeholder Engagement Plan
SH	Sexual Harassment
STI	Sexually Transmitted Infection
TA	Traditional Authority
TEVETA	Technical, Entrepreneurial and Vocational Education and Training Authority
WMP	Waste Management Plan

Chapter One: Introduction

This Environmental and Social Management Plan (ESMP) supports the environmental and social due diligence requirements for activities of construction of the Girls' Hostel financed by the World Bank under the Skills for a Vibrant Economy (SAVE) Project. SAVE 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 and creating a conducive policy environment and strengthening systems and institutional capacity for skills development, which will centre on: technical, entrepreneurial, and vocational education and training and higher education reforms, student loans, industrial links, digital technology and safeguards, capacity building, and technical assistance among other systemic issues. The project involves constructing and operating a 120-bed girls' hostel at Lilongwe Technical College in Lilongwe City, Malawi. This responds to the challenge of accommodation for female students which the college has been facing. The lack of adequate accommodation presents a significant barrier to higher enrolment, retention, and academic success. Many female students at the college, particularly from rural and underserved areas, face challenges in accessing safe, affordable, and accessible housing near the college, hence affecting their enrolment, security, and performance. The new hostels will improve female students' accommodation and thereby contribute towards women's empowerment by ensuring increased participation in skills training programs for female students. The initiative is part of the Skills for a Vibrant Economy Project (SAVE), funded by the World Bank. The implementation of project activities will be carried out by the Ministry of Education and the Ministry of Labour and Vocational Training. Generally, the project activities will have moderate risks according to the World Bank Categorization.

The Environmental and Social Management Plan (ESMP) aligns with the World Bank Environmental and Social Framework (ESF) by ensuring that construction projects, of a girls' hostel, adhere to international best practices in managing environmental and social risks. This report provides a structured approach to identifying, mitigating, and monitoring potential impacts, ensuring compliance with the World Bank's Environmental, Social Standards (ESSs) EHS guidelines, Malawi's national policies on gender equality, educational access, and Environment Management Act (2017) and its associated environmental and social management regulation of Malawi. The objective of the ESMP is to assess and mitigate potential negative environmental and social risks and impacts of the project consistent with the Environmental and Social Standards (ESSs) 1, 2, 3, 4, and 10 of the World Bank ESF and national requirements. Adhering to the standards ensures that the project remains socially inclusive, environmentally sustainable, and economically advantageous, by reducing risks such as environmental degradation, displacement, and labor exploitation while enhancing benefits like job creation, improved infrastructure, and community involvement, the project fosters long-term success and delivers a positive impact on both people and the environment. More specifically, the ESMP aims to (a) assess the potential

environmental and social risks and impacts of the proposed project, and propose mitigation measures aligned with the World Bank's Environmental and Social Framework (ESF), Environmental, Health, and Safety (EHS) Guidelines and Good International Industry Practices (GIIPs) ; (b) establish procedures for the environmental and social screening, review, approval, and implementation of activities;(c) specify appropriate roles and responsibilities, and outline the necessary reporting procedures, for managing and monitoring environmental and social issues related to the activities; (d) identify the staffing requirements, as well as the training and capacity building needed to implement the provisions of the ESMP successfully; (e) address mechanisms for public consultation and disclosure of project documents as well as redress of possible grievances; (f) establish the budget requirements for implementation of the ESMP; and (g) Encourage practices that align with sustainable development goals and foster long-term benefits for the environmental and community throughout the construction, operation and decommissioning phases. Compliance with E&S standards will ensure that the project minimizes risks and maximizes benefits for the community and environment by avoidance, minimization, remediation, and offsetting the impacts.

The ESMP preparation involved desk studies, site inspections, stakeholder consultations, and documentation. Desk studies reviewed project documents, various national legislations, and the World Bank ESF. The study team conducted field surveys in the project sites between 3rd to 4th April 2025. It assessed environmental, social, health, and economic factors, identifying potential impacts and ensuring compliance with national and international standards. Focus Group Discussions were held with academic and support staff, male and female students.

This ESMP should be read together with other plans prepared for the project, including the Environment and Social Management Framework (ESMF), Stakeholder Engagement Plan (SEP), Labour Management Plan (LMP) and the Environmental and Social Commitment Plan (ESCP). Furthermore, the contractor's ESMP and specific tools will enhance the implementation of this ESMP. The C-ESMP outlines the contractor's responsibilities in ensuring that environmental and social risks are properly managed during project implementation. The contractor plays a crucial role in aligning construction activities with the Environmental and Social Management Plan (ESMP) and the World Bank Environmental and Social Framework (ESF). specific tools include the Labour Management Plan (LMP), Gender), Gender Based Violence Management Plan (GBVMP), Child Protection Management Plan (CPMP), and Traffic Management Plan (TMP).) and Contractors ESMP (C-ESMP). Furthermore, the Contractor's ESMP will be accompanied by specific tools including Worker's Grievance Redress Mechanism (WGRM), Code of Conduct (CoC), COVID-19 construction Sites Prevention Guidelines, Community, Grievance Redress Mechanism (GRM), Waste Management Plan (WMP), and Occupational Health and Safety Management Plan (OHSMP)).

Chapter Two: Project Description

2.1 Project Description

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 project aims to improve access to market-relevant skills programs in priority areas of the economy, ensuring equity in skills training with the empowerment of women and girls and vulnerable youth through targeted skills in priority areas of the economy and creating a conducive policy environment & strengthening systems and institutional capacity for skills development, which will centre on TEVET and Higher Education Reforms, Student loans, Industrial links, Digital technology and Safeguards, Capacity Building, and Technical Assistance among other systemic issues. The project consists of four components which are:

- Component 1: Supporting Increased Access to Skills Development Programs in Higher Education.
- Component 2: Supporting Increase in Access to TEVET Skills Development.
- Component 3: Tertiary Education System Strengthening, Project Management, M&E and Communication.
- Component 4: Contingent Emergency Response.

The construction of a girls' hostel at Lilongwe Technical falls under component 1, Increased Access to Skills Development Programs in Higher Education.

2.2 Project Location

The proposed site is located within the Lilongwe Technical College campus, an operational institution with an estimated student population 1,200. The campus is in Lilongwe City along the Lilongwe to Blantyre (M1) road on the eastern side (see map in Annex 1; A1.1). The college is surrounded by a commercial area locally known as the Biwi Triangle to the east and the residential areas of Mwenyekondo and Falls Estate in the other directions (see map in Annex 1; A1.2). The college has an existing brick fence that marks its boundary and serves as a security measure; the main vehicle entrance is on the campus's eastern side. The proposed construction site for the hostel covers an area of 2,000 square metres and is located at the centre of the campus. The site is currently unused and is bordered by the girls' hostels on the southern side, the access road to the administration block on the eastern side, and the students' common room on the western side. The site has 4 scattered trees with Kapinga cover, however these trees. There are no rivers nearby.

2.3 Nature of the Project

The site plan for the hostels is presented in Annex 2. The design ensures that the new structures will seamlessly blend into the college environment, providing a conducive living space for the students. Central to the plan are two proposed hostel blocks. The first block, designated as the N.I.C Block, is strategically positioned towards the northwest of the site. Adjacent to the N.I.C

Block, towards the southeast, is the second proposed hostel block. Both structures are positioned to maximise space utilisation and provide easy access to campus amenities.

Vertical circulation is facilitated by a well-placed staircase and ramp. The staircase measures approximately 2.80 meters by 5.00 meters, while the ramp, designed for accessibility, measures approximately 4.85 meters in length. These features ensure that all areas of the hostel are easily accessible to all students, including those with mobility issues. Common areas, including corridors and entry points, are designed to facilitate smooth movement throughout the hostel. The corridors are typically around 2.
0 meters wide, providing ample space for students to pass each other comfortably.

The hostel's rooms are designed to ensure privacy and personal space, crucial for a conducive study and rest environment. The communal toilets and shower areas, each measuring approximately 4.10 meters by 2.40 meters, are centrally located within the hostels. The building will have a total of 10 toilets and 8 shower room, the first floor will have 5 toilets and 4 shower rooms the rest will be on the first floor and on each floor there will be 1 disability friendly toilet. These facilities are strategically placed to be easily accessible from all rooms, ensuring convenience for all residents. Accessibility is a key consideration in the design, with assisted facilities such as an assisted bath and toilet near the housekeeper's room. The assisted bath measures approximately 2.80 meters by 2.30 meters, while the assisted toilet measures approximately 2.80 meters by 1.80 meters. These facilities ensure that students with disabilities access necessary amenities, promoting an inclusive living environment. The building will have 2 rooms self-contained for disability students. The showers and toilets will be installed with low-flow faucets to reduce water consumption. Furthermore, all toilets will be dual-flush toilets, which save up to 50% of water per flush. For energy efficiency, the hostel will be installed with LED lighting and motion-sensor lighting, which consumes up to 80% less energy than traditional bulbs.The housekeeper's room, measuring approximately 3.60 meters by 2.80 meters, is located near the assisted facilities. Health and well-being are further prioritized with the inclusion of a sick bay. The sick bay, measuring approximately 5.00 meters by 4.10 meters, includes a separate waiting area of approximately 3.20 meters by 2.00 meters. Laundry facilities are centrally located for easy access. A spacious laundry room measures approximately 7.80 meters by 3.60 meters. This room is designed to handle the laundry needs of the entire hostel, ensuring that students have convenient access to washing facilities. Adjacent to the laundry room is a storage room measuring approximately 3.60 meters by 2.80 meters, providing additional space for storing cleaning supplies and other essentials.

2.4 Project Cost, Duration and Estimated Number of Employees

The project costs are estimated to be MK2,100,000,000.00, of which MK39,025,000 will be used to implement the ESMP.The expected construction duration is 12 months. The construction works will require not less than 140 people, with the roles depicted in Table 2-1. There will be no

campsite, only a site office, and no onsite or near-site accommodation for workers. Local workers will come from within the location of the site hence will be accommodated in their homes. However, suitable off-site accommodation for migrant workers will be provided by the contractor to ensure their health, safety, and well-being. This could be a house rented by contractor for the experts or contractor Identifying location where experts will find their own accommodation. As the actual approach will have to be negotiated with the contractor, the C-ESMP will fully cover risks that may come with the proposed approach to accomodation. Proper planning and management of worker accommodations will be implemented to enhance productivity, prevent social conflicts, and ensure compliance with labour laws and international standards, including the World Bank Environmental, Health, and Safety (EHS) Guidelines. Additionally, the project encourages hiring contractors from areas near the project site to minimise the impact on workers' accommodations.

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	45-60	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	45-60	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	35-50	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	7 - 12	Includes Security Personnel, Administrative Staff, and Drivers/Operators. Responsible for site security, administrative tasks, documentation, and operating construction vehicles and machinery.

2.5 Construction Material

Table 2-2 provides estimates based on standard practices and the assumed size and scope of the project. Considering local material availability and specific project requirements, the estimated materials and quantities are not final and can change.

Table 2-2: Estimated construction material and its usage

Material	Estimated Qty	Usage	Source of Material	Mode of Transportation
Concrete	500 m^3	Foundation, structural framework, floors, and columns.	Local supplier	Road truck
Reinforcing Steel	50 tons	Reinforcement for concrete structures, beams, and columns.	Local Supplier	Road truck
Bricks/Blocks	100,000 units	Construction of walls, partitions, and structural components.	Local supplier	Road truck
Cement	1,000 bags	Concrete, mortar for brickwork, plastering, and rendering.	Supplier from Lilongwe City	Road truck
Sand	600 m^3	Concrete mix, mortar, plastering, and rendering.	Local supplier	Road truck
Gravel/Aggregate	400 m^3	Concrete mix for foundation, floors, and structural components.	Local supplier	Road truck
Plasterboard/ Drywall	5,000 m^2	Internal walls and ceilings.	Local supplier	Road truck
Insulation Material	1,000 m^2	Thermal and acoustic insulation for walls, ceilings, and floors.	Local supplier	Road truck
Roofing Sheets	2,500 m^2	Roofing for the building.	Local supplier	Road truck
Tiles	3,000 m^2	Flooring in different areas.	Local supplier and imported ensuring compliance with Malawian standards and regulations	Road truck
Paint	2,000 litres	Painting walls, ceilings, and external surfaces.	Local supplier	Road truck
Glass Panels	500 m^2	Windows, doors, and partitions.	Local supplier	Road truck
Doors	150 units	Internal and external doors for various rooms and entrances.	Local supplier and imported ensuring compliance with Malawian standards and regulations	Road truck

Material	Estimated Qty	Usage	Source of Material	Mode of Transportation
Windows	200 units	Installation in various rooms for natural light and ventilation.	Local supplier and imported ensuring compliance with Malawian standards and regulations	Road truck
Plumbing Pipes	1,000 m	Water supply and drainage systems.	Local supplier and imported ensuring compliance with Malawian standards and regulations	Road truck
Electrical Wiring	10,000 m	Electrical installations including lighting, power outlets, and equipment connections.	Local supplier	Road truck
Sanitary Fixtures	200 units	Installation of sinks, toilets, faucets, and other plumbing fixtures.	Local supplier	Road truck
Furniture and Fixtures	Various	Furnishing rooms, offices, laboratories, and common areas with necessary furniture and fixtures.	Local supplier	Road truck
Water	500,000 litres	Mixing concrete, plastering, brickwork, cleaning, and general construction activities.	Nearest river	Water bowser
Energy	200,000 kWh	Powering construction equipment, lighting, HVAC installation, and other electrical needs during construction.	ESCOM	Connect from existing lines

2.6 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. The non-hazardous waste will be disposed of at the Blantyre city dumpsite at Area 38. This dumpsite is located 10 kilometres north-east of the College.

Table 2-3: Estimated waste types and quantities

Type of Waste	Description	Estimated Qty
Concrete Waste	Excess concrete and slurry from mixing	10 cubic meters
Steel Waste	Scrap reinforcing steel and metal offcuts	2 tons
Brick/Block Waste	Broken bricks and blocks from construction	5,000 units
Cement Bags	Empty cement bags	1,000 bags
Sand and Gravel Waste	Excess sand and gravel	5 cubic meters
Plasterboard/Drywall Waste	Offcuts and damaged boards	500 square meters
Insulation Material Waste	Offcuts and unused insulation materials	200 square meters
Roofing Waste	Scrap roofing sheets and offcuts	250 square meters
Tile Waste	Broken or unused tiles	300 square meters
Paint Waste	Excess paint and empty cans	100 liters, 200 cans
Glass Waste	Broken glass panels	50 square meters
Wood Waste	Timber offcuts and damaged wood	3 cubic meters
Plastic Waste	Packaging materials and plastic offcuts	500 kg
Electrical Wiring Waste	Scrap wiring and cables	500 meters
Plumbing Waste	Excess piping and fixtures	200 meters
General Construction Debris	Mixed waste including packaging, small materials	10 cubic meters
Wastewater	wastewater and slurry	176 to 352 cubic metres

Chapter Three: Legal Framework

This chapter gives a review of the legal framework pertaining to the proposed project and indicates its implications for the project. Reference has been made to relevant Malawian legislation but also to the World Bank Environmental and Social Framework. Furthermore, the chapter provides an account of all regulatory licenses and approvals that must be obtained for the proposed project to ensure that they are in line with sound environmental management practices and follow relevant existing legislation.

3.1 Relevant Malawi Legislative Framework

Table 3-1 provides a brief description of the key legislative requirements that the project will have to abide by during the construction and operation phases.

Table 3-1: Key National Legislative Requirements

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 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	Project activities will integrate environmental and social management and protection 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 develop for mitigating potential impacts	The proposed construction project at Lilongwe 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	The Forestry Act addresses the management of indigenous forests on customary land, private land, forest

Legislation	Description	Relevance to project Activities
	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 proposed construction project at Lilongwe Technical College is largely modified as it is an existing school campus. The actual sites for the facilities are being used for the cultivation of crops. 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 water's properties, making it less fit for use or hazardous to public health, safety, animals, or plant	The activities of the construction project at Lilongwe Technical College will require water and have the potential to pollute the water resources surrounding the Project 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	Lilongwe Technical College is on private land that belong to the catholic church who own the college. In addition, the proposed

Legislation	Description	Relevance to project Activities
	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.	construction activities will be developed on this private 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 government authority or the Commissioner, depending on the jurisdiction.	The implication of this Act is that the proposed project will have to ensure that the plans are approved by Lilongwe district Council before commencing construction activities.
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 Lilongwe 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.

Legislation	Description	Relevance to project Activities
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 Lilongwe 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.
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 equalise 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	The project will not tolerate any form of discrimination against persons with disabilities and will promote equal employment opportunities for persons with disabilities.

Legislation	Description	Relevance to project Activities
	premises, provision of services, and employment opportunities based on disability.	
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	The proposed construction project at Lilongwe 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
	is liable to a fine and imprisonment specified under subsection (2).	
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 the promotion of education where the 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 emphasized.	The proposed construction project at Nami Technical College will assist in removing the barriers by increasing intake and providing a 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 mouth and nose when coughing or sneezing, avoiding touching the face, eating	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
	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.	
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 recognizes 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 Lilongwe 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 World Bank Environmental and Social Framework

The World Bank Environmental and Social Framework sets out the World Bank's commitment to sustainable development through a Bank Policy and a set of Environmental and Social Standards designed to support Borrowers' projects to end extreme poverty and promote shared prosperity. The Environmental and Social Standards, and EHS guidelines including environmental guidelines, Occupational Health and Safety (OHS) Guidelines, Community Health and Safety Guidelines, and Construction and Infrastructure-Specific EHS guidelines set out the requirements for Borrowers relating to the identification and assessment of environmental and social risks and impacts associated with projects supported by the Bank through Investment Project Financing. The Bank believes that the application of these standards, by focusing on the identification and management of environmental and social risks, will support Borrowers in their goal to reduce poverty and sustainably increase prosperity for the benefit of the environment and their citizens. The Environmental and Social Standards that apply to the project are given in Table 3-2.

Table 3-2: Relevance of WB Environmental and Social Standards to the project

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 disadvantaged or vulnerable, and they are not disadvantaged in sharing development benefits and opportunities. *The proposed construction project at Lilongwe Technical College 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 Labour Management Plan, Waste Management Plan, Health and Safety Plan, Traffic Management Plan, Children Protection Management Plan, Gender-Based Violence Management Plan (GBVMP) 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 pursuing 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 full-time, part-time, temporary, seasonal, and migrant workers. *The construction project at Lilongwe Technical College shall use the Labour Management Plan for the SAVE Project that guides the 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 prepared LMP and GRM which are essential tools for safeguarding labour rights, improving working conditions, and ensuring the overall success of this project through a fair and responsible approach to workforce management*
ESS 3 – Recourse and Efficiency, Pollution	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 the generation of hazardous and non-hazardous waste. Minimise and manage the risks and impacts

Environmental & Social Standards	Main requirements and conducted activities to meet them
Prevention and Management	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 Lilongwe 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 special protection from possible accidents. The project has ensured that the ESMP documents has provided mitigation measures to ensure community safety. This ESMP has prepared 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 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 Committee (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 Four: Environmental and Social Setting

This chapter provides an overview of the project's existing environment, which is related to the proposed areas' physical, biological, socio-economic, and structural aspects. It also forms part of baseline information within the project area that might be used for future planning.

4.1 Physical Environment

4.1.1 Topography and Landscape Features of the Project Area

Lilongwe Technical College lies at an altitude of 1130 metres, and its topography is generally flat. The project site is part of the Lilongwe geology, which is characterised by various gneisses, granulite, and schist, including important developments of pegmatite rocks that underlie the Lilongwe plain. All these are assigned to the Malawi Basement Complex.

4.1.2 Soils in the Project Area

The project area has clay, loamy, reddish-brown soils that are less exposed to erosion risk due to their deep sublayer, which encourages runoff infiltration. Erosion surfaces were not present in the proposed project site. In general, Lilongwe Soil Catena is representative of the ferruginous soil pattern covering the central part of the Lilongwe plain.

4.1.3 Weather Characteristics

In general, weather information is critical because it guides proper planning and timing of project works. According to weather-and-climate.com, the monthly mean high temperatures range from 25^{o}C in July to about 31^{o}C in October and November. The project site, just like the whole Lilongwe District experiences low temperatures in May, June and July, and experiences hot temperatures in October and November. The mean low temperatures range from 13^{o}C in July to 20^{o}C in November and December. The monthly rainfall for the project site area has been obtained from weather-and-climate.com and the data shows that rainfall ranges from about 0mm to 286mm, with most of the rainfall falling in December to March. Lilongwe experiences dry spells in the months of May, June, July, August, September, and October. On average, January is the wettest month with 286 mm of precipitation, August is the driest month with 0 mm of rainfall, and annual rainfall is 1010 mm. The cool south-easterly winds sometimes bring light rains in April and early May.

4.2 Biological Environment

The project site is within the college campus which has an already built environment. As such there are no notable flora and fauna species that will be impacted by the project.

4.3 Socio-Economic Environment

4.3.1 Population

Lilongwe Technical College has a campus that has an anticipated population of 1200 people which includes staff and students and it is approximated that out of this population, 450 are female. This

population includes people that are based on campus and others that are present during the day but reside off campus.

4.3.2 Health

The major health facility that is used by the project area is Bwaila Hospital which is located 4 kilometres to the north of the campus. It was not possible to get information on which diseases are common on campus from the Hospital as they do not keep this information. However, during FGDs the most prevalent diseases on the campus include malaria, bacterial infections, and upper respiratory tract infection.

According to the 2015-16 Malawi Demographic and Health Survey (2015-16 MDHS), prevalence of HIV in Lilongwe City has declined in the past decade from 25% to 14.6%. However, large number of people are still getting infected. There is evidence of complications due to TB prevalence. Over 60% of TB patients tend to be HIV positive. Data from the District Health Office shows that HIV infection reports at various health centres among people aged 15-49 is quite high.

Through the OHS assessment of potential OHS risks due to construction activities, especially with noise, dust, and machinery operation, the proposed project poses a number of health risks to the workers, nearby residents, students, staff and the surrounding community. The main potential health impacts include physical injuries and accidents, and respiratory diseases from dust inhalation.

4.3.3 Water Supply

Lilongwe Water Board supplies portable water to the campus, and the water supply from the Board was said to be very reliable. During construction, the project will be storing water during off-peak hours in a 10,000-litre tank which will located at the sites. Some construction water will be pumped from the Lilongwe River which is within 2 km from the project site. During the operation, the building will be connected to Lilongwe Water Board. The building will be installed with water conservation faucets. The increase in water bills will be covered by tuition by the additional number of students.

4.3.4 Power Supply

Electricity Supply Corporation of Malawi supplies electricity to the project area. According to a brief survey conducted during public consultations, the supply to the campus is very reliable, and they rarely experience blackouts. Lilongwe Technical College uses electricity for all its energy requirements, including cooking, lighting, and powering devices and appliances in the offices, classrooms, and hostels. There will be a solar power backup system to ensure uninterrupted operations, especially during unstable power supply to avoid delays, safety risks, and financial losses.

4.3.5 Communication

Telecom Network Malawi Limited (TNM), Airtel, Access and Malawi Telecom Limited (MTL) are the area's main providers of telephone services.

4.3.6 Security

Security in Lilongwe is provided by both public and private institutions. Crime at Lilongwe Technical College is rated as low, with petty theft being the common type.Apart from the Malawi Police Service which provides security at Falls Estate, the project has put in place measures to beef up security, such as involving community policing to secure the project's assets. The project will deploy trained guards to patrol the site, verify identities, and respond to incidents. Other measures include fencing and barriers, gated entry points, security lighting, lock and secure equipment and signage and warning signs.

4.3.7 Waste Management

Solid waste management is under the jurisdiction of Lilongwe City Council. The council has partly privatized the collection and disposal of solid waste. the main types of waste generated at the college include food waste, papers, plastics and glass materials, wood chips and cuttings from the workshops. , the waste is collected by a private waste collector who disposes of at the Area 38/2 dump site. Liquid waste is managed through septic tanks built strategically around campus areas. Hazardous materials such as chemicals, paint, and fuel will managed of according to MEPA guidance and managed and disposed of properly, as required by the ESF and EHS guidelines such as the provision of secondary containment, drip trays or other overflow and drip containment measures, for hazardous materials containers at connection points or other possible overflow points.

Chapter Five: Assessment of Environmental and Social Impacts

The project implementation cycle includes the phases of mobilisation, construction, finishing, and demobilisation. During mobilisation, the contractor will develop project documents, set up temporary structures, recruit a workforce, obtain permits, and procure materials. The construction phase involves foundation work, structural framework, walls, partitions, roofing, and plumbing and electrical installations. The finishing phase includes painting, tiling, and installing fixtures and equipment. Demobilisation involves removing temporary facilities and construction debris.

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 3 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
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	-	-	-	-
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 pertinent environmental management measures or mitigation	Improbable	Low Probability	Probable	Highly Probability	Definite
Significance (S) is determined by combining the above criteria in the following formula:	$[S = (E + D + R + M) \times P]$ $Significance = (Extent + Duration + Reversibility + Magnitude) \times Probability$				
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**
	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**
	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 (+)**

Aspect	Impact	Nature	Significance (Before Mitigation)	Significance (After Mitigation)
	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**
	Disruption of Play Area	Negative	**High**	**Low**
Demobization phase impacts and their ratings				
Waste	Poor waste disposal	Negative	**High**	**Low**
Land	Change of scenic beauty	Negative	**Moderate**	**Low**
Pollution	Risk of pollution	Negative	**Moderate**	**Low**
Resources	Resource strain	Negative	**Moderate**	**Low**
Social	Loss of Livelihood	Negative	**High**	**Low**
Operation phase impacts and their ratings				
Waste	Poor 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, specifically planning, construction and operation.

5.4.1 Planning and Design Phase Positive Impacts

The activities in this phase will include planning and designing 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 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 employ 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 to 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 Operation Phase Positive Impacts

5.4.3.1 Enhanced Educational Environment

Building a 120-bed, two-storey girls' hostel at Lilongwe Technical College will significantly enhance the educational environment by providing safe, comfortable, and convenient accommodation for female students. This contributes to a more focused academic experience, as students can better concentrate on their studies without the distractions and challenges of commuting long distances.

5.4.3.2 Increased Access to Education

By offering on-campus accommodation, the project increases access to education for girls, particularly those from rural or distant areas who might otherwise face difficulties in attending college.

5.4.3.3 Promotion of Gender Equality

The focus on constructing a girls' hostel supports gender equality by ensuring female students have equal opportunities for accommodation and education. This initiative can inspire similar projects and policies that empower women through education. Providing secure and reliable accommodation enhances the safety of female students. The hostel's design, including security measures and staff presence, ensures a safe living environment, reducing the risk of harassment and other security concerns.

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 Construction Phase Negative Impacts*

5.4.4.1 Disruption 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 construction site has the potential to create environments where gender-based violence (GBV) and sexual exploitation and abuse (SEA) may occur. These impacts can affect workers and the surrounding community, including college staff, and students. The presence of construction workers, often from different areas and backgrounds, can increase the vulnerability of local women and girls to GBV and SEA. In addition, female workers on the construction site may face sexual harassment, discrimination, or exploitation from their colleagues or supervisors.

5.4.4.4 Community Health and Safety Risks

Construction activities may affect the surrounding local population, infrastructure and their environment. The community health and safety risks are important especially in this setting because of its proximity to the nearby residential units and also since it is within the college campus with hostels, classrooms and workshops. These entities can be affected by air pollution through dust emissions, exhaust fumes, chemical emissions, water pollution through water contamination, noise pollution from construction activities, traffic and transportation risks, occupational hazards extending to the community, spread of infectious diseases like COVID-19, HIV and AIDS, cholera and many others. Fire Hazards due to the storage and use of flammable materials increase the risk of fire incidents, which could threaten workers and nearby buildings. Given that the construction works will be done at an existing college and in an area adjacent to an access road and pathway used by students and college staff, the construction activities are expected to exacerbate traffic congestion and closure of the pathway.

5.4.4.3 Traffic Congestion and Community Health and Safety Risks

Construction projects can pose significant health and safety risks to surrounding communities if not properly managed. These risks arise from physical hazards, environmental pollution, and social disruptions. Proper mitigation measures must be implemented to protect residents, workers, and the environment. Given the college's location in a densely populated area with significant commercial and transportation activity, the construction activities are expected to exacerbate traffic congestion. Increased vehicular traffic from transporting construction materials and equipment will further congest the M1 road. This congestion poses a higher risk of road accidents involving vehicles and pedestrians, including college students and staff. Additionally, the construction site may endanger individuals at Lilongwe Technical College due to falling debris and materials, Furthermore, if the site is not properly secured, it may allow unauthorised access, increasing safety risks for students and staff members. Environmental concerns such as air pollution and dust emissions could contribute to respiratory problems, including asthma. Poor waste disposal practices could also contaminate local water sources, creating serious health risks. Furthermore, the use of heavy machinery and potential blasting activities may disturb nearby residents and potentially damage the surrounding infrastructure.

The Implementation of the Traffic Management Plan, such as establishing safe pedestrian crossings, enforcing speed limits, and using warning signs, will reduce the risks. The

community health and safety risk will be addressed through secure construction sites, proper handling of materials and GBV awareness and prevention.

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 street kids in the commercial area and communities from the Mwenyekondo high-density residential area, 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 the use of 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 health of students, staff, and nearby residents.

5.4.4.6 Elevated Noise Levels

Construction machinery and equipment produce elevated noise levels, which can impair workers' hearing and disturb the college 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 Occupational Health Risks On-site Affecting Workers

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. During construction it is expected that there will be dust emission emanating from land clearing and excavation activities as well as from cutting of concrete blocks and using cement. Workers are susceptible to health risks such as respiratory infections and skin and eye irritation. Exposure to chemicals in the workplace can occur through inhalation, skin contact, ingestion or eye contact leading to health effects like headaches, skin irritation, respiratory illnesses, neurological damage, organ damage and cancer if there is chronic exposure.

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 (spread of STIs, HIV and AIDS, and Covid-19)

Interactions between workers and the communities and even amongst themselves can increase the likelihood of spreading STIs, HIV and AIDS, 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, and cleaning wastewater.

5.4.4.11 Increase in Electricity Consumption

Electricity Supply Corporation of Malawi supplies electricity to the project area. Lilongwe Technical College uses electricity for lighting, power devices, and appliances in offices, classrooms and hostels. The construction works will significantly increase electricity consumption. 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.

5.4.4.12 Increase in Water Consumption

The main water source at the college is portable water supplied by the Lilongwe Water Board. The construction works will result in a significant increase in water consumption. This increase is necessary for various construction activities, including concrete mixing, which requires large amounts of water for the foundation, walls, and other structures. This heightened water demand will lead to high water bills that the college cannot maintain. The contractor will abstract water from the Lilongwe River for construction. For portable water, the institution and the contractor will have an agreement on how the contractor will cover the bills.

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 increases soil's susceptibility to being eroded. Construction activities also expose the soils through excavation, grading and levelling activities hence the topsoil is easily eroded. The project will create impermeable surfaces like sidewalks and pavements reducing water infiltration into the soil and 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 Risk of Soil Pollution 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.

Construction sites often involve machinery that operates with chemicals, oils, and fuels, as well as materials such as cement, plastics, and metal scraps. Leakage or improper disposal of these substances can degrade soil quality, making it unsuitable for agriculture or vegetation. Leakage or spills associated with the storage and handling of construction materials, particularly hazardous substances like oils, fuels, paints, 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 the contamination of surface water and groundwater through runoff during the rainy season and infiltration into the ground. Contaminants can potentially compromise water quality for both surface and groundwater hence posing risks to human health and aquatic ecosystems dependent on these water sources.

5.4.4.15 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, 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.

5.4.5 Demobilization phase Negative Impacts

5.4.5.1 Poor waste disposal

Improper disposal of materials from demobilisation can increase the risk of accumulation of waste including hazardous substances such as chemicals, oils, or heavy metals. These hazardous wastes can seep into the soil and waterways, contaminating natural resources that are vital for biodiversity. This contamination not only harms flora and fauna but also disrupts ecosystems, potentially leading to long-term damage. which can harm ecosystems.

5.4.5.2 Risk of pollution

Dust and emissions from machinery and vehicles used during demobilisation can degrade air quality, posing respiratory risks to the workers, students and staff members and communities around

5.4.5.3 Resource strain

The process can consume significant resources, such as energy and water, impacting the energy and water supplies at the technical College.

5.4.5.4 Change of scenic beauty

Construction waste materials & temporary sanitary facilities may change the beauty of the Lilongwe Technical College and can pose safety hazards to nearby communities, including students and staff

5.4.5.5 Loss of Livelihood

Workers and communities dependent on the project may face economic challenges. for example, Workers directly employed by the project may lose their jobs, leading to financial instability, Furthermore, local businesses that relied on the project for income, such as suppliers or service providers, may also suffer losses. Programs for skills training and job placement can mitigate these impacts.

5.4.6 Operation phase Negative Impacts

5.4.6.1 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.

5.4.6.2 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.

5.4.6.3 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.

5.4.6.4 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.

5.4.6.5 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.

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. Table 5-4 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. It details all the necessary mitigation measures, their financial costs, and the institutions responsible for their implementation.

Table 5-4: Environmental and Social Management and Monitoring Plan

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
5.4.1				**Planning and Design Phase Positive Impacts**				
5.4.1.1	Creation of employment opportunities (architects, engineers, and other experts)	Maximise employment of professionals registered with relevant Malawian institutions and authorities.	Throughout the planning and design operation phase	500,000	The percentage of Malawian professionals hired	Once after the recruitment of consultants	Lilongwe Technical College (LTC); SAVE PIU	Ministry Education E)
		Give equal employment opportunities to both men and women; and			Percent of females hired			
		Provision of terms and conditions which are in line with the Employment Act of 2000.						
5.4.1.2	Improved project compliance to national environmental and social legislations	Solicit views of the public and stakeholders through consultations to ensure that	Throughout the planning and design phase	500,000	Number of consultation meetings conducted	Once before acceptance of design reports from consultants	Lilongwe Technical College (LTC); SAVE PIU	MoE

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		their concerns are considered in the Project's documents.						
		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 Protection			Availability of approvals			

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Authority, and Lilongwe District Council.						
5.4.2				**Construction phase positive impacts**				
5.4.2.1	Creation of local employment opportunities	Prioritise the employment of people (including the youth) from respective project areas;	Throughout the construction phase	200,000	Percentage of youth and women in workforce	Quarterly during the construction phase	Contractor	LTC; SAVE PIU (Social Experts)
		Ensure qualified women, youths and vulnerable people are given equal opportunities as men in terms of leadership positions and remuneration; and						
		Ensure salaries and wages to be paid to the local employees are			Percentage of workers paid above minimum wages			

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		above the minimum stipulated Government wages						
5.4.2.2	Availability of market for construction materials and services, and other trades	Promote the procurement of construction materials and supplies from approved small-scale businessmen and entrepreneurs within the projects area, while not compromising the quality;	Through construction phase	150,000		Quarterly during the construction phase	Contractor	
		Where practically possible ensure that locally produced materials are given priority over imported materials; and						

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Purchase construction materials and supplies at competitive prices to ensure local businesses and entrepreneurs are making profits.						
5.4.2.3	Skill transfer	Maximise employment of local people particularly for the unskilled labour force;	Throughout the construction phase	100,000	Percentage of locals in workforce	Quarterly during the construction phase	Contractor	LTC; SAVE PIU (Environmental and Social Experts)
		Make deliberate effort to pair skilled and unskilled workers during various construction assignments; and			Percentage of unskilled workers being trained			
		Formalise on-the-job trainings for local unskilled						

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		labour that also includes learning targets and performance monitoring.						
5.4.3				**Operation Phase Positive Impacts**				
5.4.3.1	Enhanced Educational Environment	Implement targeted recruitment strategies to ensure the participation of women.	Continuously during operation phase	Included in operational budget	Number of women students enrolled	Semi-annually	Lilongwe Technical College Management	TEVET
		Provide safe, comfortable, and convenient accommodation for female students	During design phase	Included in design budget	Availability of facilities in designs	Before construction phase	Design Consultant	Lilongwe Technical College Management; SAVE PIU
		Develop partnerships with local businesses and industries to financial support to women students.	Continuously during operation phase	Included in operational budget	Number of partnerships with local businesses and number of students placed on financial support programs	Semi-annually	Lilongwe Technical College Management	TEVETA

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
5.4.3.2	Increased Access to Education	Ensure the increase in access to education for girls, particularly those from rural or distant areas.	Continuously during operation phase	Included in operational budget	Number of female students from rural or distance areas residing on campus	Annually	Lilongwe Technical College Management	TEVETA
		Seek for scholarships for female students from rural or distant areas who might otherwise face difficulties in attending college to be residing on campus.			Number female students from rural or distance areas residing on campus on scholarships			
5.4.3.3	Promotion of Gender Equality	Ensure the Provision for secure and reliable accommodation that enhances the safety of female students	Operation Phase	Included operational budget	Number security measures included in operational phase	Before construction and annually during operation	Design consultant	Lilongwe Technical College Management; SAVE PIU

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Ensure that the hostel's design, include security measures and staff presence, to ensures a safe living environment to reducing the risk of harassment and other security concerns.	Design Phase	Included in design budget				
					Number security measures included in facility designs			
5.4.3.4	Local Economic Development	Inform local communities of employment opportunities and prioritize their employment.	Before operational phase starts	MK100,000	Number of local workers employed	Before construction begins	Contractor	Supervising Consultant; PIU E&S Expert
		Treat employees in compliance with Malawi Labour Regulations and labour and working	Ongoing during construction and operational phase	MK0	Compliance with labour regulations	Monthly		

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		conditions as per the project's Labour Management Plan.						
		Pay the same rates for workers working on similar tasks regardless of gender and origin.	Ongoing during operational phase	MK0	Pay equity records	Monthly		
5.4.4				**Construction Phase Negative Impacts**				
5.4.4.1	Disruption of the Provision of Education Services	Allocate specific areas away from classrooms for storing construction materials, ensuring these areas do not interfere with educational activities.	Before construction phase starts	MK200,000	Number of designated storage areas	Monthly	Contractor	Supervising Consultant
		Use temporary structures or secure outdoor	Before construction phase starts	MK100,000	Number of temporary structures used			

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		spaces for storage to avoid using indoor educational facilities.						
		Schedule the most disruptive construction activities during school holidays, weekends, or after school hours to minimise impact on lessons.	During construction phase	MK50,000	Compliance with schedule			
		Implement a phased construction approach to limit the extent of disruption at any given time.	During construction phase	MK100,000	Progress of phased construction			
		Use noise barriers or acoustic enclosures	During construction phase	MK300,000	Noise levels in decibels			

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		around high-noise activities to reduce the impact on nearby classrooms.						
		Implement dust suppression measures such as water spraying and covering materials to minimise dust generation.	During construction phase	MK200,000	Air quality measurements			
		Establish regular communication channels between the construction team and the college administration to coordinate activities and address concerns promptly.	Ongoing	MK50,000	Number of meetings held			College Administration

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Inform the college community about the construction schedule, potential disruptions, and mitigation measures in place.	Before construction phase starts	MK50,000	Information dissemination frequency			
								School Administration
5.4.4.2	Increased Risks of GBV, SEA, and Defilement	Develop an induction program including a code of conduct for all workers which they will be required to sign prior to starting their work.	Before the construction phase starts	MK50,000	Existence of induction program; number of signed codes of conduct	Before construction begins	Contractor	Supervising Consultant
		Ensure a copy of the code of conduct is presented to all construction	Before construction phase starts	MK50,000	Number of signed codes of conduct	Before construction begins		

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		workers and signed by each of them.						
		Implement a GBV management plan as presented in Annex 5.	During construction phase	MK250,000	Existence and implementation of GBV management plan	Before construction begins		
		Provide clear, trusted, and responsive channels for filing GBV/SEA/SH cases to the police or other relevant government authorities.	Ongoing during construction phase	MK150,000	Number of reported cases; resolution time	Monthly		
		Set up a confidential and accessible grievance mechanism for reporting GBV, SEA, and other concerns, ensuring it is well-publicised	Ongoing during construction phase	MK50,000	Existence and accessibility of GRM; number of grievances addressed	Weekly		

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		within the community and schools.						
		Provide regular training on gender sensitivity, GBV, and SEA prevention to all construction workers.	Ongoing	MK100,000	Number of training sessions conducted; participant feedback	Monthly		
		Ensure prompt investigation and resolution of reported incidents, with appropriate disciplinary actions for perpetrators.	Ongoing	MK150,000	Number of incidents investigated; resolution time	Monthly		
		Encourage the recruitment of female workers and ensure equal employment opportunities in the	Ongoing	MK100,000	Number of female workers recruited	Monthly		

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		construction project.						
		Provide a safe and supportive work environment for female employees.	Ongoing	MK100,000	Employee satisfaction surveys; number of reported incidents	Monthly		
5.4.4.3	Traffic Congestion and Potential Accidents to the Community	Develop and implement a Traffic Management Plan using guidance provided in Annex 8.	Before construction starts	MK300,000	Traffic Management Plan in place	Weekly	Contractor	Supervising Consultant; PIU E&S Expert
		Employ flaggers and traffic wardens to direct traffic during critical periods of construction.	During construction phases	MK200,000/month	Flaggers and wardens deployed during peak times	Weekly		
		Ensure safe pedestrian movement by installing well-marked crossings and signage near the site.	Before construction starts	MK250,000	Crossings and signage installed	Weekly		

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Schedule delivery of materials and heavy equipment movement during off-peak hours.	Throughout construction	MK0 (Operational cost)	Reduced traffic disruption during peak hours	Weekly		
		Erect safety barriers around the construction site to prevent unauthorized access.	Before construction starts	MK200,000	Safety barriers installed	Weekly		
		Hire transporters with valid CoF and appropriately licensed drivers.	Throughout construction	MK200,000/month	Transporters comply with CoF and licensing	Monthly		
		Ensure construction vehicles observe a 20 km/hr speed limit on the hospital campus.	Throughout construction	MK150,000	Speed limit signs installed and observed	Monthly		

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
5.4.4.4	Increased incidences of child labour	During the recruitments of the construction workers, use national identification cards to ascertain the age of the prospective workers.	Ongoing during construction phase	MK0	Compliance with labour regulations	As needed	Contractor	Supervising Consultant; PIU E&S Expert
		Ensure that all contractors and subcontractors adhere to local and international labour laws prohibiting child labour.	Ongoing during construction phase	MK0	Compliance with labour regulations	As needed		
		Strategically, erect signage, which are three metres high, with prevention of child labour messages at construction sites	Ongoing during construction phase	MK500,000	Number of erected signposts	Weekly		

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Set up an anonymous reporting system where incidents of child labour can be reported without fear of retribution.	Before commencement of construction	K200,000	Number for uptake systems in place	Weekly		
5.4.4.5	Temporary Air Quality Deterioration	Plan construction works to minimize dust, avoid windy periods	Before demolition start	MK0 (Operational cost)	Reduced dust levels during demolition	Weekly	Contractor	Supervising Consultant; PIU E&S Expert
		Wet down entire construction area periodically, wherever possible.	Throughout excavation and construction works	MK0 (Operational cost)	Regular wetting schedule maintained	Daily		
		Transport particulate materials with adequate load cover	During material transport	MK150,000	Properly covered loads observed	Weekly		
		Unload powdery materials using drop-	During material unloading	MK150,000	Minimal dust observed during unloading	Weekly		

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		height regulation equipment to minimize air contamination in line with ESS3 guidelines.						
		Regular maintenance of vehicles, avoid old vehicles emitting black smoke	Throughout construction	MK150,000	Emission levels within acceptable limits	Monthly		
5.4.4.6	Elevated noise levels from machinery and construction activities	Limit noisy construction activities only to daytime hours.	Ongoing during construction phase	MK0 (Operational cost)	Compliance with work hours; noise level readings	Daily	Contractor	Supervising Consultant; PIU E&S Expert
		Notify college community at least twenty-four hours in advance if particularly noisy activities are anticipated.	As needed during construction phase	MK0 (Operational cost)	Number of notifications sent; community feedback	As needed		
		Ensure that noise levels at the hospital do	Ongoing during	100,000	Noise level readings;	Monthly		

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		not exceed 55 dB (A) and keep noise levels for workers below 80 dB (A) in alignment with ESS3 on Pollution Prevention and Control.	construction phase		compliance with standards			
		Place stationary noise sources (e.g., the generator) away from sensitive receptors such as wards and staff houses.	During equipment setup	100,000	Placement compliance; noise level readings	As needed		
		Regular maintenance of machinery to minimize noise	Ongoing during construction phase	100,000	Noise level readings; compliance with standards	Monthly		
5.4.4.7	Occupational Health Risks On-site Affecting Workers	Develop and implement an Occupational Health and Safety Plan that aims to	Before construction phase starts	250,000.00	Existence of OH&S plan; compliance with safety protocols	Quarterly	Contractor	Supervising Consultant; PIU E&S Expert

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		avoid, minimize, and mitigate the site-specific risk of workplace accidents, in line with ESS2 on Labor and Working Conditions.						
		Provide OSH orientation training and hazard-specific training.	During induction and ongoing	50,000.00	Number of training sessions; worker awareness levels	Monthly		
		Conduct a thorough risk assessment before excavation to identify potential hazards and implement necessary safety measures.	Before excavation starts	50,000.00	Risk assessment report; implementation of safety measures			
		Install barriers and warning signs around	During excavation	150,000	Number of barriers and signs;			

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		the excavation area to prevent unauthorized access and to alert workers to potential hazards.			compliance with safety protocols			
		Use secure and stable ladders or scaffolding that meet safety standards for working at height.	During construction	100,000	Equipment inspection logs; compliance with safety standards			
		Provide personal protective equipment (PPE), including safety harnesses, helmets, and non-slip footwear to all workers working at height.	Before work at height begins	100,000	PPE availability and usage; compliance with safety standards			
5.4.4.8		Treat employees in	Ongoing during	200,000	Number of compliance	Monthly	Contractor	Supervising Consultant;

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
	Discriminatory Working Conditions	compliance with the Malawi Labour Regulations and labour and working conditions as per World Banks ESS 2.	construction phase		audits; employee feedback			PIU E&S Expert
		Implement the project as required by the projects Labour Management Plan.			Existence of Labour Management Plan; compliance audits			
		Pay the same rates for the workers working on similar tasks regardless of gender and origin.			Payroll records; employee feedback			
		Report regularly on workforce profile, labour grievances, labour incidents and			Number of reports submitted; compliance with reporting standards			

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		workforce management activities and results using World Bank templates, government requirements, and international good practice.						
		Have workers sign a code of conduct.			Number of signed codes of conduct			
		Sensitise workers to a full range of risks related to occupational health and safety, labour rights risks, public health, community safety, sexual harassment, GBV, and other risks.			Number of sensitisation sessions; worker participation			
5.4.4.9	Infectious Disease Impact (spread of STIs, HIV	Carry out monthly health education for	Ongoing; monthly	150,000	Number of health education sessions;	Monthly	Contractor	SC; PIU E&S Expert

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
	and AIDS, and Covid-19)	construction workers in liaison with health personnel using the toolbox talks.			worker participation			
		Free condoms are to be made available to all (100%) workers by placing them in the workers' toilets to ensure access and confidentiality.	Ongoing	100,000	Availability and usage of condoms	Monthly		SC; PIU E&S Expert
		Sensitise construction workers on Covid-19 prevention, including hand washing with soap, use of hand sanitizers, proper use of face masks,	Ongoing	50,000	Number of sensitisation sessions; worker compliance	Before employment starts		SC; PIU E&S Expert

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		and workspace disinfection among others.						
		Distribute information, education, and communication (IEC) materials on Covid-19, HIV and AIDS prevention, and cholera.	Ongoing	250,000	Number of IEC materials distributed; worker awareness	Monthly		SC; PIU E&S Expert
		Provide necessary PPE and other materials (e.g. cloth masks, hand sanitizers, hand-washing facilities) to help prevent construction workers from contracting and spreading Covid-19 at the workplace.	Ongoing	150,000	Availability and usage of PPE; compliance with health protocols			SC; PIU E&S Expert

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
5.4.4.10	Generation of solid wastes, spills, and effluent	Provide adequate on-site waste receptors such as colour-coded bins or skips for temporary waste storage. The use of rubbish pits should be discouraged. Implement waste segregation at source for recyclables, non-recyclables, and hazardous waste, and ensure that all waste is stored in designated containers to minimize contamination.	Before the construction phase starts	2,250,000	Number and type of waste receptors; compliance with waste management protocols	Weekly	Contractor	SC; PIU E&S Expert
		Arrange with the District Council to	Before construction phase starts	50,000	Number of waste disposal sites	Weekly		SC; PIU E&S Expert

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		identify a suitable site or sites (new or existing) for waste disposal at different project sites if possible, within 5 km radius. Ensure that waste disposal sites are licensed, and obtain permits to handle, store, transport, and dispose of hazardous waste from the Environmental Authority in advance of construction.			identified; compliance with disposal protocols			
		Obtain permits to handle, store, transport, and dispose of hazardous waste from the Environmenta	Before the construction phase starts	50,000	Number of permits obtained; compliance with hazardous waste regulations	Weekly		SC; PIU E&S Expert

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		l Authority in advance of construction.						
		Segregate and clearly label hazardous waste and store it in suitable drums or containers in secure facilities that have a banded impermeable layer.	During construction phase	100,000	Segregation and labelling compliance; condition of storage facilities	Weekly		SC; PIU E&S Expert
		Promote good housekeeping and sanitation practices at each site, including sanitary and hand-washing facilities for both males and females	Ongoing	1,050,000	Cleanliness and organization of the site; worker compliance	Monthly		SC; PIU E&S Expert
		Provide spill-control kits and materials (e.g. oil binding agents, sand,	During construction phase	100,000	Availability and usage of spill-control kits; number of spill incidents	Monthly		SC; PIU E&S Expert

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		shovels, etc.) to drivers and workers, to clean up spills, if necessary. Ensure that spill containment and clean-up procedures are followed, with workers trained in the use of spill-response equipment.						
5.4.4.11	Increased Electricity Consumption	Promote energy-efficient practices.	Ongoing during the construction phase	500,000	Percentage of energy from renewable energy sources	Monthly	Contractor	Supervising Consultant; PIU E&S Expert
		Utilize renewable energy sources such as solar panels for providing temporary power on-site, reducing reliance on diesel generators.						

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Train workers on energy-saving practices and the importance of reducing energy consumption.		300,000	Number of workers trained			
		Use of fuel-efficient vehicles and machinery.		500,000	Amount of fuel used			
		Optimise logistics to minimise transportation distances and fuel consumption.						
5.4.4.12	Increased in Water Consumption	Implement water-saving measures.	Ongoing during construction phase	300,000	Amount of water used	Monthly	Contractor	Supervising Consultant; PIU E&S Expert
		Reuse water where possible and use the river water for construction e.g. use greywater for dust suppression			Amount of non-potable water used			

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		and sanitation purposes						
					Amount of water reused			
		Monitor and minimize water wastage.			Water usage records			
5.4.4.13	Soil Erosion and Sedimentation due to earthworks and site clearing	Protect all areas susceptible to erosion by construction of storm water drains and redirecting storm water to reduce run–off water on stripped soils;	Throughout the construction phase	500,000		Throughout the construction phase	Contractor	SC; PIU E&S Expert
		Avoid deposits of loose spoils near waterways;						
		Segregate topsoil for reuse during restoration of						

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		exposed soil areas and reuse native soil to backfill trenches;						
		Compact all loose soils and surfaces within the work site; and						
		Protect soil mounds with tarps or banding around the mounds with a minimum height of 0.5 m from the ground.						
5.4.4.14	Risk of Soil and Water Contamination due to improper handling and disposal of construction	Conduct soil testing before and after construction to monitor contamination levels.	Annually	200,000		Annually	Contractor	SC; PIU E&S Expert

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
	materials, such as oils, fuels, and solvents, could lead to soil and groundwater contamination							
		Implement erosion control measures to prevent soil runoff and contamination.						
		Train site workers on proper handling and disposal of hazardous materials to minimize soil pollution.						
		Establish a contingency plan for immediate						

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		response in case of soil contamination incidents.						
5.4.4.15	Traffic Disruptions due to the movement of construction vehicles could lead to traffic congestion	The proposed development must provide adequate onsite parking, loading facilities, and manoeuvring space for the construction vehicles	Throughout construction phase					
5.4.5	**Mobilisation phase: Negative Impacts**							

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
5.4.5.1	Poor waste disposal	Separate waste into categories such as hazardous, recyclable, and non-recyclable materials. Partner with certified waste management companies to ensure safe and compliant disposal. Involve local communities in waste management efforts, such as recycling programs.	Throughout demobilization	Inclusive	Presence of segregated wastes Reports of waste disposal	Throughout demobilization	Contractor	SC; PIU E&S Expert
5.4.5.2	Change of scenic beauty	Rehabilitate affected places	After the demobilization period	Inclusive	100% rehabilitation	Throughout demobilization	Contractor	SC; PIU E&S Expert

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
5.4.5.3	Risk of pollution	Implement a waste management plan	Throughout the demobilisation stage	Inclusive	Waste management report	Throughout demobilization	Contractor	SC; PIU E&S Expert
5.4.5.4	Resource strain: increase consumption of water and energy	Prepare a rehabilitation plan and include strategies of reducing the consumption of energy and water	Before the demobilization	Inclusive	Resource efficiency report	Before demobilization	Contractor	SC; PIU E&S Expert
5.4.5.5	Loss of Livelihood	Programs to help displaced workers transition to new employment opportunities Sensitize small business owners on the when the project will phaseout .	Throughout the project	Inclusive	Training reports	Throughout the project	Contractor	SC; PIU E&S Expert
5.4.6	**Operation phase Negative Impacts**							

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
5.4.6.1	Health and safety risks due to fire hazards	An adequate number of portable fire extinguishers shall be placed at strategic locations.	Biannually during the operation phase	300,000	Percentage of operational extinguishers	Biannually during the operation phase	LTC	MoE; TEVETA
		Good housekeeping shall be maintained at all sites to reduce the fire risk.			Number of incidents			
		The design of the facilities shall strictly adhere to the fire safety standards.						
		Fire detectors and a sprinkler system shall be installed in all the buildings.			Fire detectors and sprinkler system in place			

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
5.4.6.2	Increased generation of solid waste	Provide colour coded waste receptacles for each room for organic, plastic, and glass waste;	Annually during operation phase	300,000	Availability of waste receptacles	Annually during the operation phase	LTC	MoE; TEVETA
	Availability of waste receptacles	Annually during the operation phase						
		Conduct lesson plans for learners on solid waste management;			Training records			
		Excavate a 36 cubic metre compost pits for disposal of organic waste to make compost manure that can be used			Amount of waste collected and properly disposed			

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		in the college flower beds; and						
		In consultation with Lilongwe District Council, identify a waste disposal site for non-degradable waste.						
5.4.6.3	Increased risk to STIs, HIV and AIDS	Develop and implement an HIV and AIDS policy and a prevention, treatment, care and support programme;	Annually during operation phase	500,000	Availability of prevention programme	Annually during the operation phase	LTC	MoE; TEVETA
		Sensitise staff and students on HIV and			Percentage of people sensitised			

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		AIDS prevention;						
		Free condoms shall be made available to the members of staff; and			Number of toilets with condoms made available			
		Distribution of information, education and communication (IEC) materials on STIs including HIV and AIDS.						
5.4.6.4	Increased demand for power	Reduce energy consumption associated with lighting by using of occupancy sensors, high-efficiency	Annually during operation phase	1,300,000	Amount of energy consumed	Annually during operation phase	LTC	MoE; TEVETA

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		light bulbs where possible, daylight controls (e.g. to adjust interior lighting, based on incoming daylight, using a photoelectric sensor); and						
		Encourage utilisation of building design that uses passive solar design to take advantage of natural sunlight and airflow.						
5.4.6.5	Increased demand for water	Install Water-saving equipment, including ultra-low-	Annually during the operation phase	4,300,000	The volume of water used	Annually during the operation phase	LTC	MoE; TEVETA

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		flush toilets, spray nozzles, urinals, faucet aerators, low-flow showerheads, and pressure-control valves; and						
		Post notices to encourage the sparing use of water.						
	TOTAL			22,025,000.00				

5.7 Implementation of ESMP

The ESMP shall be implemented to address all activities that have been identified to have potentially significant impacts on the environment during normal operations and upset conditions. The implementation of the project environment and social component will be overseen by different institutional arrangements. The players are indicated in ***Table 5-5***. The contractor will report to the supervision consultant who reports to the PIU and finally report to the project's steering committee.

Table 5-5: ESMP Implementation Arrangement

Responsible Party	Roles and Responsibilities
SAVE PIU (Environmental and Social Safeguards Specialists) / Lilongwe Technical College Project Team	• Provide support, oversight, and quality control to field staff working on environmental and social risk management. • Planning and implementation of ESMP. • Ensuring that the social and environmental protection and mitigation measures in the ESMP are incorporated intointo the site-specific Environmental and Social Action Plans. • Supervise and monitor the progress of contractors' activities. of contracted consulting engineers for the implementation of different components of the ESMP • GuideGuide construction teams in conducting subsequent monitoring and reporting and in undertaking corrective options. • Ensure the submission of periodic environmental and social management and monitoring reports to the World Bank. • External communications with other implementing partners, government ministries and agencies, and non-government organisations on matters of mutual interest related to environmental management under the project development. • 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. • 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. • Provision of permits related to site activities e.g. working at height, confined space, incident Investigations, • Promote improved social and environmental performance through the effective use of management systems;
MEPA	• Guiding implementers in all issues of the environment in the project • Issuing environmental permits for the project • Monitor the integration of environmental managementissues into the project implementation. • Issuing environmental certificates where necessary • Provide advise on environmental matters on the project.
Supervision Consultant	• Development of a monitoring tool or checklist based on the ESMP and guided by the project's physical layout.

Responsible Party	Roles and Responsibilities
	• 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.
The Contractor	• Customise the project ESMP and generate a Construction Environmental and Social Management Plan as a tool to guide the implementation and monitoring of indicators. File a copy with the Resident Engineer. • Procure necessary equipment for environment measurements or engage some appropriate expert personnel for the activity in specific environment quality aspects, including air quality, noise, water, and soil quality, • Monthly reporting throughout the project period.

5.8 Training and Capacity Building

The Training and Capacity Building Plan aims to equip the project implementation team with the knowledge, skills, and competencies to effectively implement and oversee the Environmental and Social Management Plan (ESMP). This plan covers the SAVE Project Implementation Unit (PIU), Supervision Consultant, and Contractor's teams. The objectives of the training and capacity-building approach are as follows:

i. Ensure all team members understand the ESMP and their roles in its implementation.
ii. Develop skills and competencies required to effectively monitor, report, and manage environmental and social impacts.
iii. Ensure all activities comply with the ESMP, World Bank guidelines, and local regulations.
iv. Foster a culture of continuous improvement in environmental and social performance.

Given the need to raise awareness among project workers and stakeholders at multiple levels, a cascading model will be implemented where information flows from the national level to the field levels as shown in ***Table 5-6***. This approach ensures that training on environmental and social risk management is integrated into the project cycle and operational procedures.

Table 5-6: Proposed Training and Capacity Building Approach

Level	Responsibility Party	Audience	Topics / Themes	Estimated Cost (MK)
SAVE project management team and contractors	PIU Experts	PIU, Project Staff, Supervising Engineers, Contractors, and Contractor Workers:	• ESF and ESF Requirements • Roles and responsibilities for environmental and social issues • Occupational health and safety • Labour	MK5,000,000

Level	Responsibility Party	Audience	Topics / Themes	Estimated Cost (MK)
			• 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	
Lilongwe Technical College and surrounding community	Environmental Specialist	Lilongwe College Staff, Students, and Local Communities, Particularly Women:	• The function of the GRM and Grievance Redress Committees • UsedESF Requirements • Roles and responsibilities for environmental and social issues • Emergency prevention, preparedness, and response arrangements to emergency situations • safety	MK2,000,000

To ensure the effectiveness of the training and capacity-building plan, regular evaluations and monitoring will be conducted. This will involve:

i. Evaluate participants' knowledge before and after training sessions.
ii. Collect feedback from participants to improve future training sessions.
iii. Regularly review monitoring reports to ensure compliance and identify areas for improvement.
iv. Conduct quarterly review meetings with all stakeholders to assess progress and address any issues.

5.9 ESMP Estimated Budget

Table 5-7 lists estimated cost items for the implementation for the ESMP, which have been included in the overall project budget.

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Table 5-7: Summary ESMP Implementation Budget

SN	Activity/Cost Item	Potential Cost (MK)
1	Training for PIU and Project Staff (venue, travel, refreshments etc.)	MK5,000,000
2	Training for supervising engineers (venue, travel, refreshments, etc.)	MK2,000,000
3	Training for contractors (venue, travel, refreshments, etc.)	MK2,000,000
4	Printing of awareness-raising materials / grievance redress materials	MK500,000
5	Personal Protective Equipment	MK4,500,000
6	Cost of obtaining clearances or permits	MK2,500,000
7	Implementation of site-specific ESMPs and other site-specific plans	MK 22,025,000
8	Travel and accommodation budget for environmental and social staff site visits	MK500,000
	Total	**MK39,025,000**

5.10 Stakeholder Engagement, Grievance Redress Mechanism, Disclosure, and Consultations

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. This ESMP will be disclosed after approval and disclosures have already been done for the SEP and the Environmental and Social Commitment Plan (ESCP) that have been prepared for this project. Key feedback on this ESMP is provided in Annex 4. The SEP and ESCP can be accessed on the following websites:

SEP - https://documents.worldbank.org/en/publication/documents-reports/documentdetail/314131616158364147/stakeholder-engagement-plan-sep-skills-for-a-vibrant-economy-project-p172627

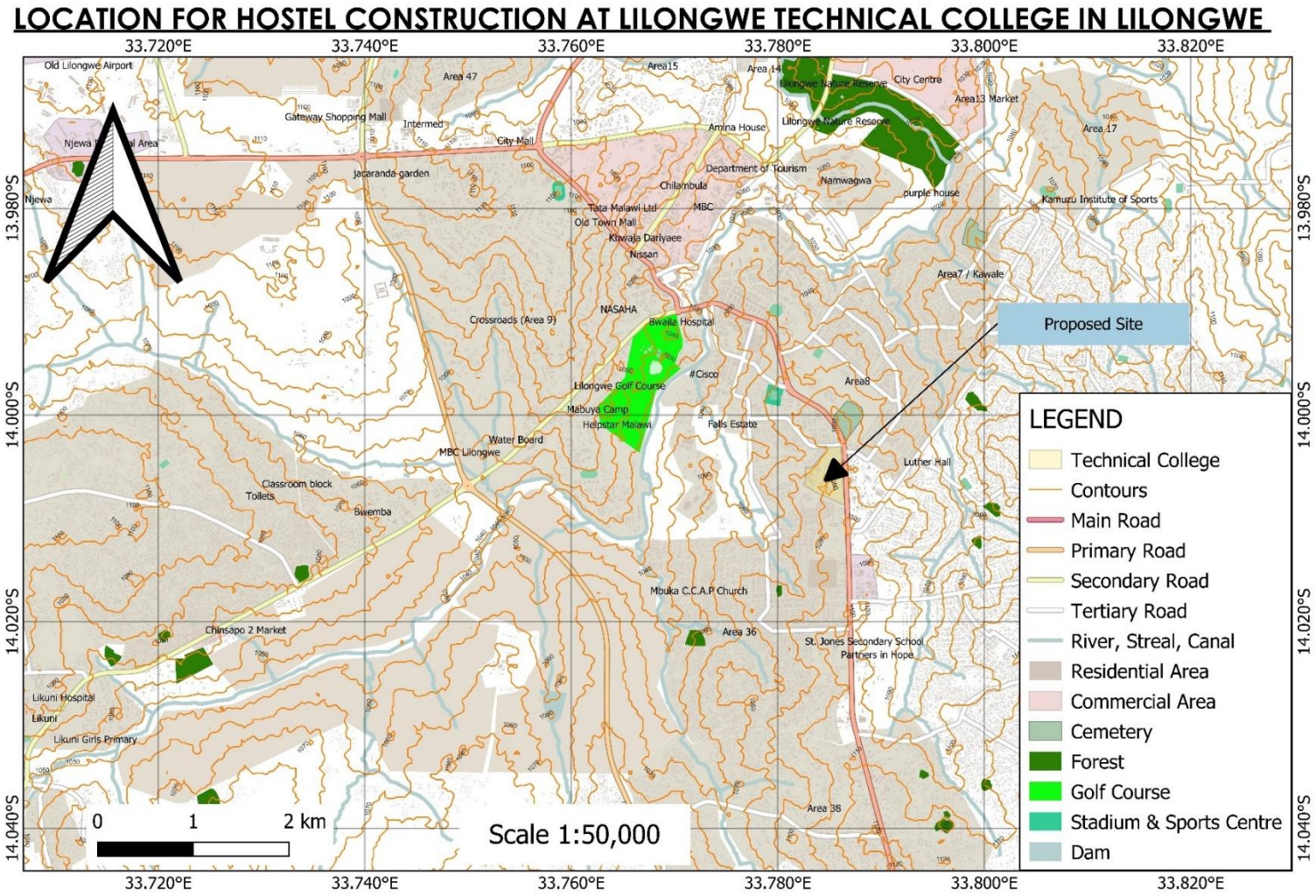
ESCP - https://documents.worldbank.org/en/publication/documents-reports/documentdetail/845931626738176878/revised-environmental-and-social-commitment-plan-escp-skills-for-a-vibrant-economy-project-p172627

During the ESMP development process, various stakeholders were consulted on the proposed project design, anticipated environmental and social risks and impacts, mitigation measures, and grievance redress mechanism. Key Informant Interviews (KII) and Focus Group Discussions were used in data collection. Key informants were purposively selected based on their knowledge of participation, and role in the project. At district level, the respective sectoral departments were consulted through the District Environmental Sub-Committee (DESC) which among others included the Environmental District Office (EDO), District Forestry Office (DFO), District Labour

Office, District Lands Office, and District Planning and Development Office (DPD). The community leaders, community members, college staff and students were also consulted during the process of development of the ESMP report. The issues that were raised from these interactions have been included in Annex 4. There will be continuous engagement with all these stakeholders through GRM and management and monitoring of the ESMP during implementation of the project.

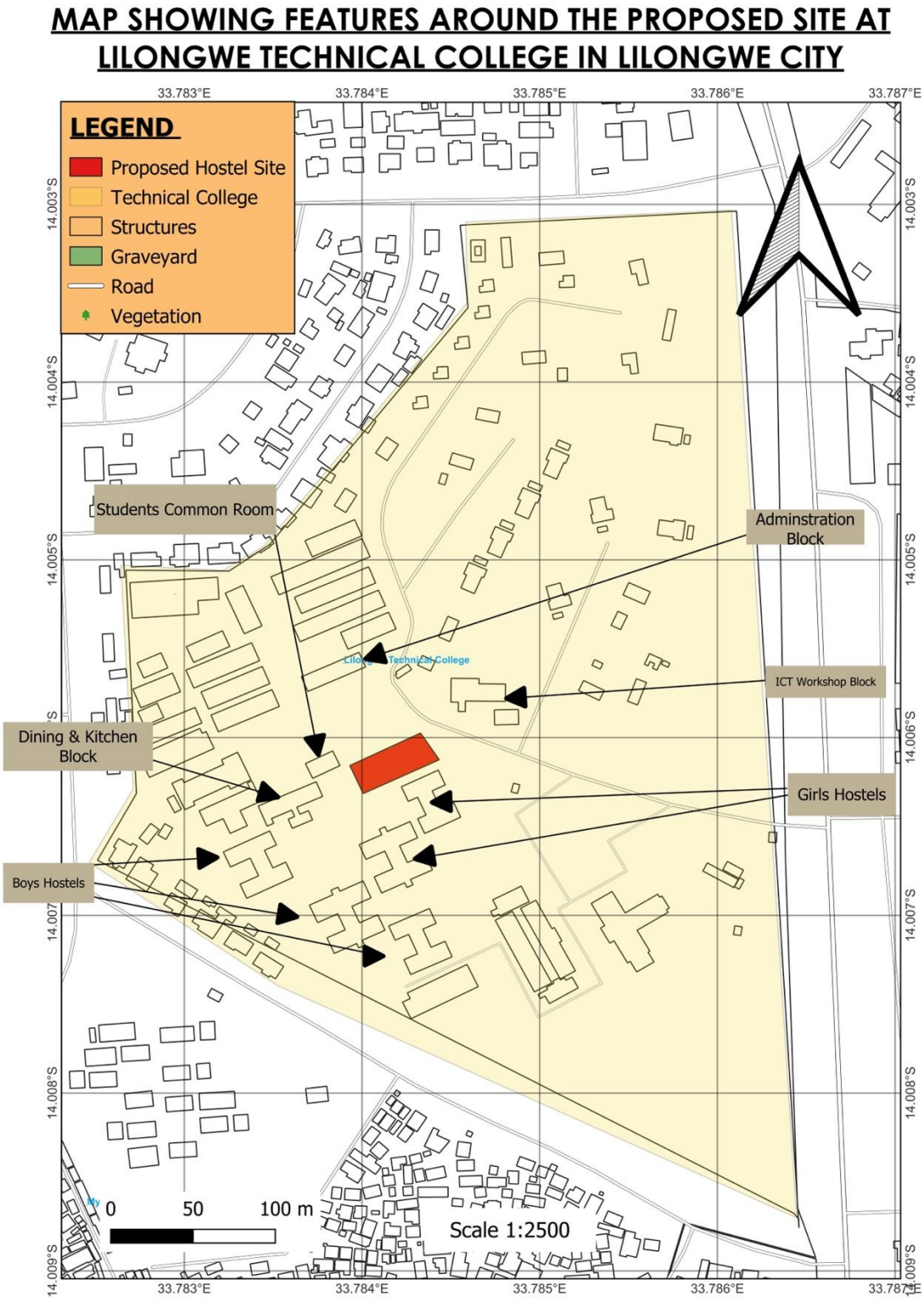
Annex 1: Location Maps

A1.1 Topography Map of the Project Site



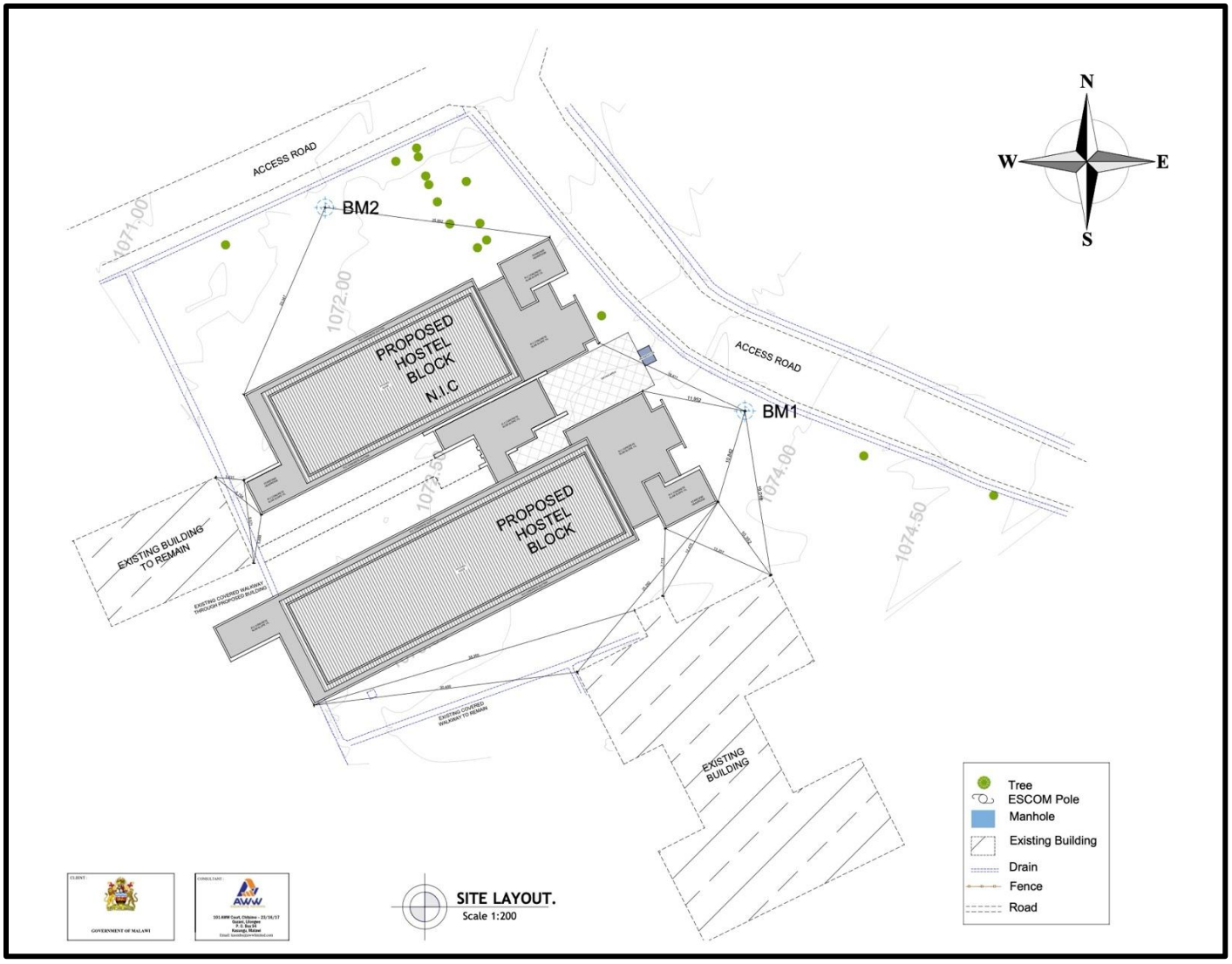
A1.2 College Campus and Surrounding Institutions.

A1.3 Features around Project Site

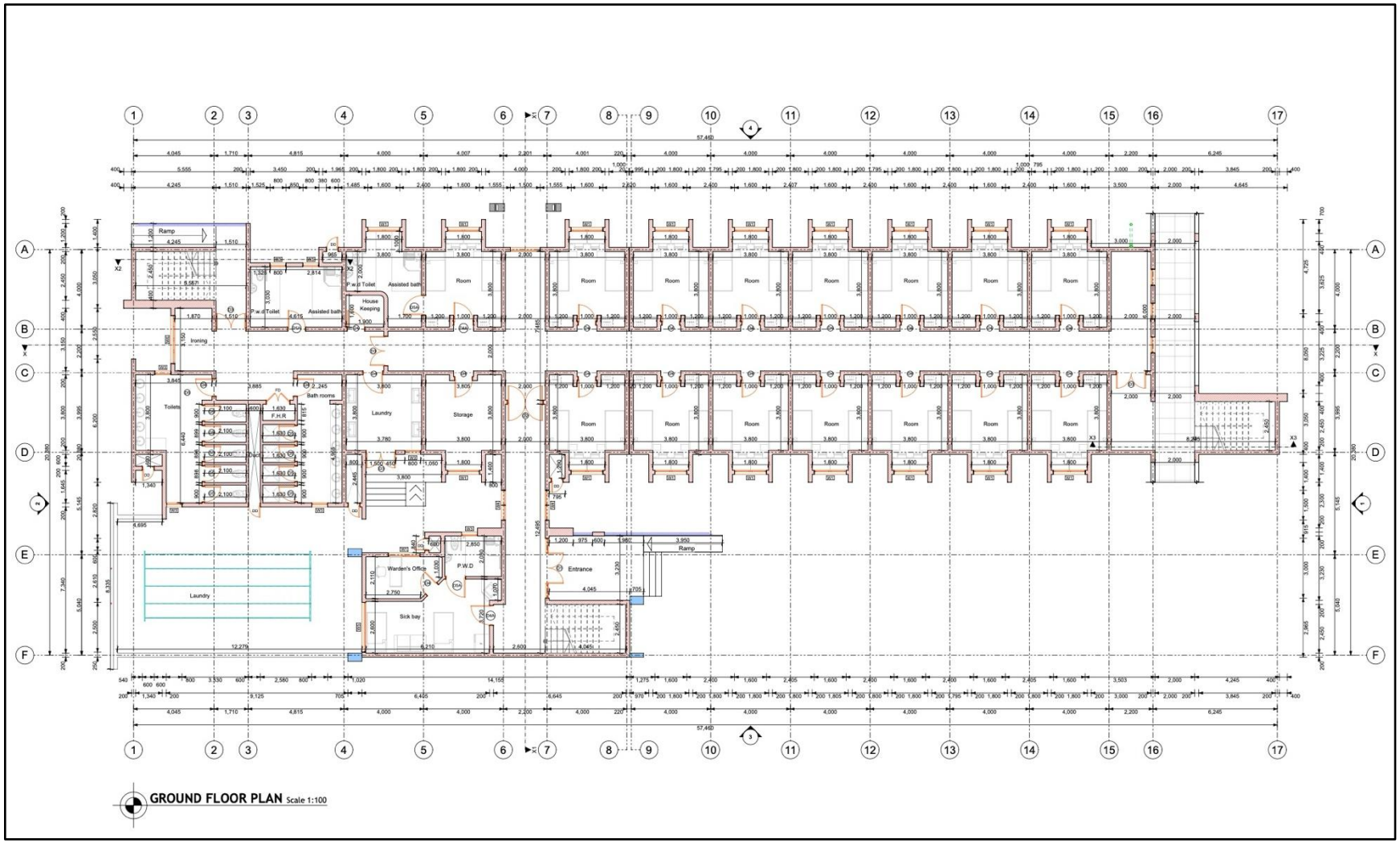


Annex 2: Detailed Designs

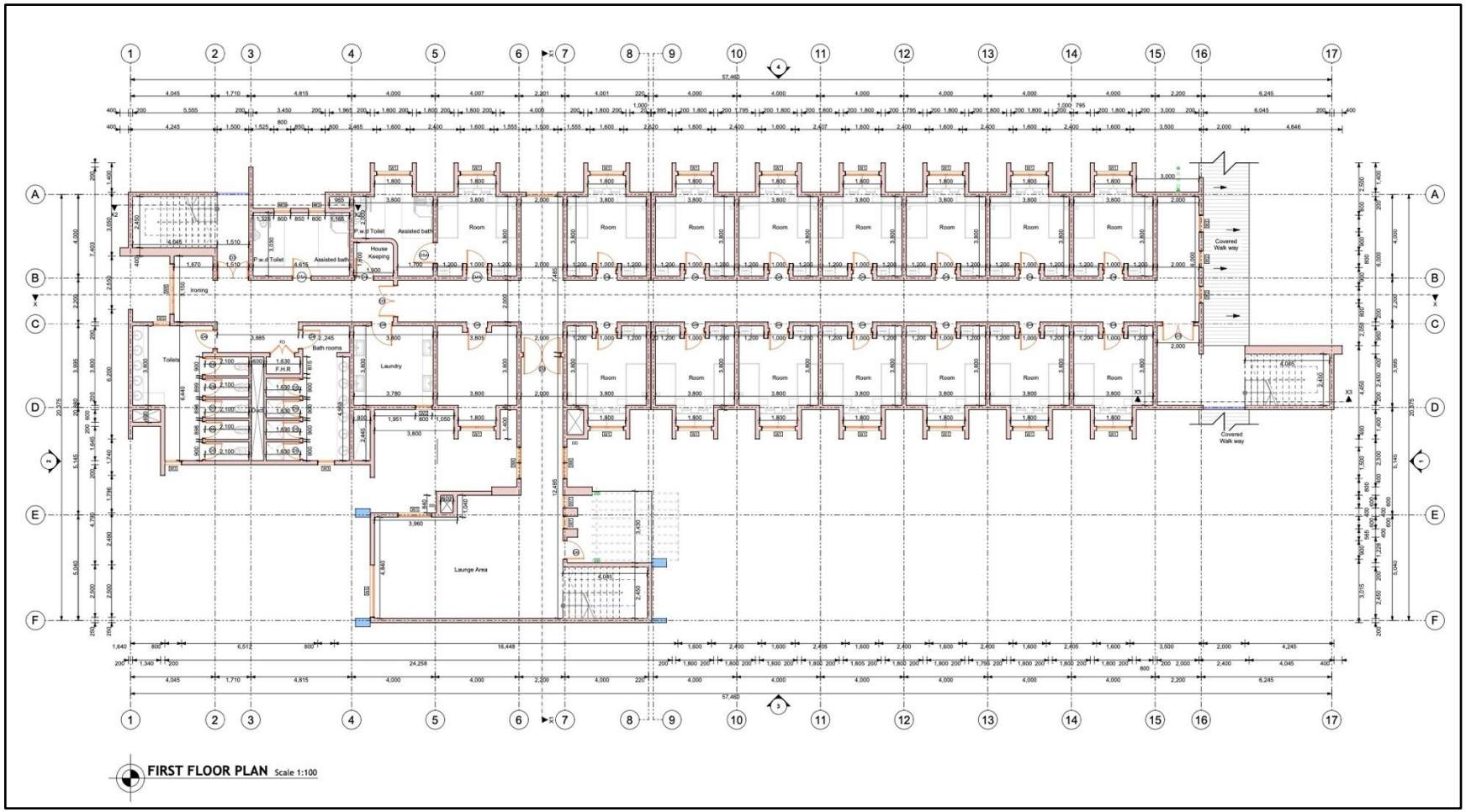
A2.1 Site Layout Plan



A2.2 Ground Layout Plan



A2.3 First Floor Layout Plan



Annex 3: Project Screening Form

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: Girls Hostel	District: Lilongwe
Project Location: Lilongwe Technical college	Nature/Size 40m X 50m
Name & Signature of Evaluator: Tadala Sendezera; Memory Kamoyo; Peter Elesani	Date of Field Evaluation

		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	Yes	✓		low	- Replanting trees - Limit the clearing area.
1.2	Soil erosion/siltation in the area	Yes	✓		low	- Back fill all excavations. - Limit the clearing area

1.3	Pollution to land-diesel ,oils	No				
1.4	Dust emissions and increased particulate matter	Yes	✓		Medium	-Application of dust suplation measures -Provision of PPE
1.5	Solid waste generation	Yes	✓	✓	Medium	-Store waste in designated area -Installations to be constructed.
1.6	Liquid wastes and waste water generation	Yes		✓	low	-To be connected to septic tank.
1.7	Introduction of hazardous chemicals and wastes	Yes	✓		low	-Provide PPE -proper handling -proper disposal -sensitization
1.8	Borrow pits and pools of stagnant water	Yes	✓		low	-Filling of the pits
1.9	Rubble/heaps of excavated soils	Yes	✓		low	-Re-use -Filling of the pits
1.10	Invasive tree species	No				
1.11	Long term depletion of water	No				
1.12	Reduced flow of water sources	No				
1.13	Nuisance from noise and vibrations	Yes	✓		Medium	-Regular vehicle servicing -Proper task scheduling
1.14	Loss of soil fertility	No				
1.15	Incidence of flooding	No				
1.16	Increased Energy use	No				
1.17	Increased demand and/or portable	No				

	water use					
1.18	Increase emergence of man-made and natural disasters e.g. fires etc.	No				
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	No				
2.2	Loss of properties – houses, structures	No				
2.3	Loss trees, fruit trees by households	No				
2.4	Loss of crops by people	No				
2.5	Loss of access to river/forests/grazing area	No				
2.6	Impact cultural site, graveyard land	No				
2.7	Conflicts over use of local water resources	YES	✓		low	Sensitize the contract the institution #Make econtractor on Payment of rs.
2.8	Disruption of important pathways, roads	YES	✓		low	Creation of Pathway sensitize the
2.9	Loss communal facilities –churches	No				
2.10	Loss of livelihood	No				

	system					
2.11	Blockages to footpath/roads	YES				Find alternatives routes and foot paths
2.12	Bring resettlement issues	No				
2.13	Spread of HIV/AIDS and other STIs	Yes	✓	✓	Medium	-Provision of condoms --VCT sensitization meetings.
2.14	Spread of Covid-19	Yes	✓	✓	Low	PPE & sensitization
2.15	Occupational safety and health issues	Yes	✓		Low	-First aid Kit -site trainings
2.16	Increase exposure of Hazardous chemicals and wastes	No				
2.17	Safety issues with respect to poor building designs	Yes	✓	✓	Low	-Use of proper materials.
2.18	Exclude other users especially disabled and vulnerable with respect to poor building designs	Yes	✓	✓	Low	-Design should be disability friendly
2.19	Increased GBV and SEA	Yes	✓		Low	Awareness 40-60 Campaigns
2.20	Increased violence against children	No				

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		1. The project is cleared. No serious social and economic impacts, (Where scores are all "No", "few" in form)though the bids/contracts	

would have standard EHS clauses		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	
Approval by Environmental officer		Approval by Director of Planning and Development	
Name: Tadala Sendezera		Name: Rebecca Bada	
Signature	Date 16/04/2025	Signature	Date 16/04/2025

THE DISTRICT COMMISSIONER LILONGWE DISTRICT COUNCIL 16 APR 2025 P.O. BOX 93, LILONGWE MALAWI

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

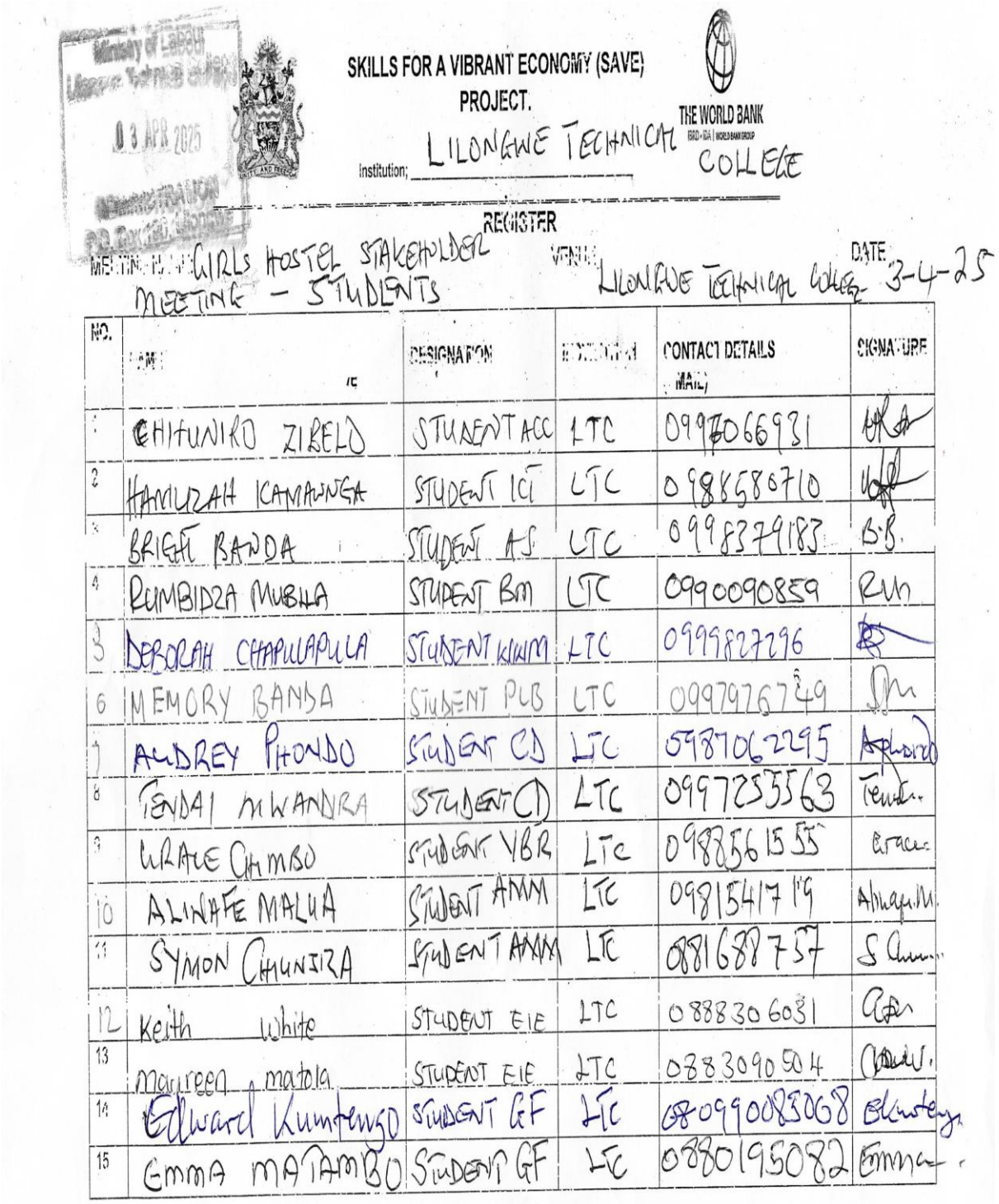
Annex 4: Stakeholder Consultations

A4.1 Stakeholder Consultation Checklist for the ESMP

1. What type of environmental and social positive impacts will result from this proposed project, and how will these impacts be enhanced (State positive impacts for each phase of construction and operation)?
2. What type of environmental and social negative impacts should be expected during the construction of the proposed project, and what are the proposed mitigation measures?
3. What environmental and social negative impacts should be expected during the proposed project's operation and maintenance phase, and what are the proposed mitigation measures?
4. Who else should be consulted regarding the environmental and social impacts of the proposed project?

A4.2 Stakeholder Signing Sheets

A4.2.1 Students FGD Participants



SKILLS FOR A VIBRANT ECONOMY (SAVE) PROJECT.

THE WORLD BANK

Institution: LILONGWE TECHNICAL COLLEGE

REGISTER

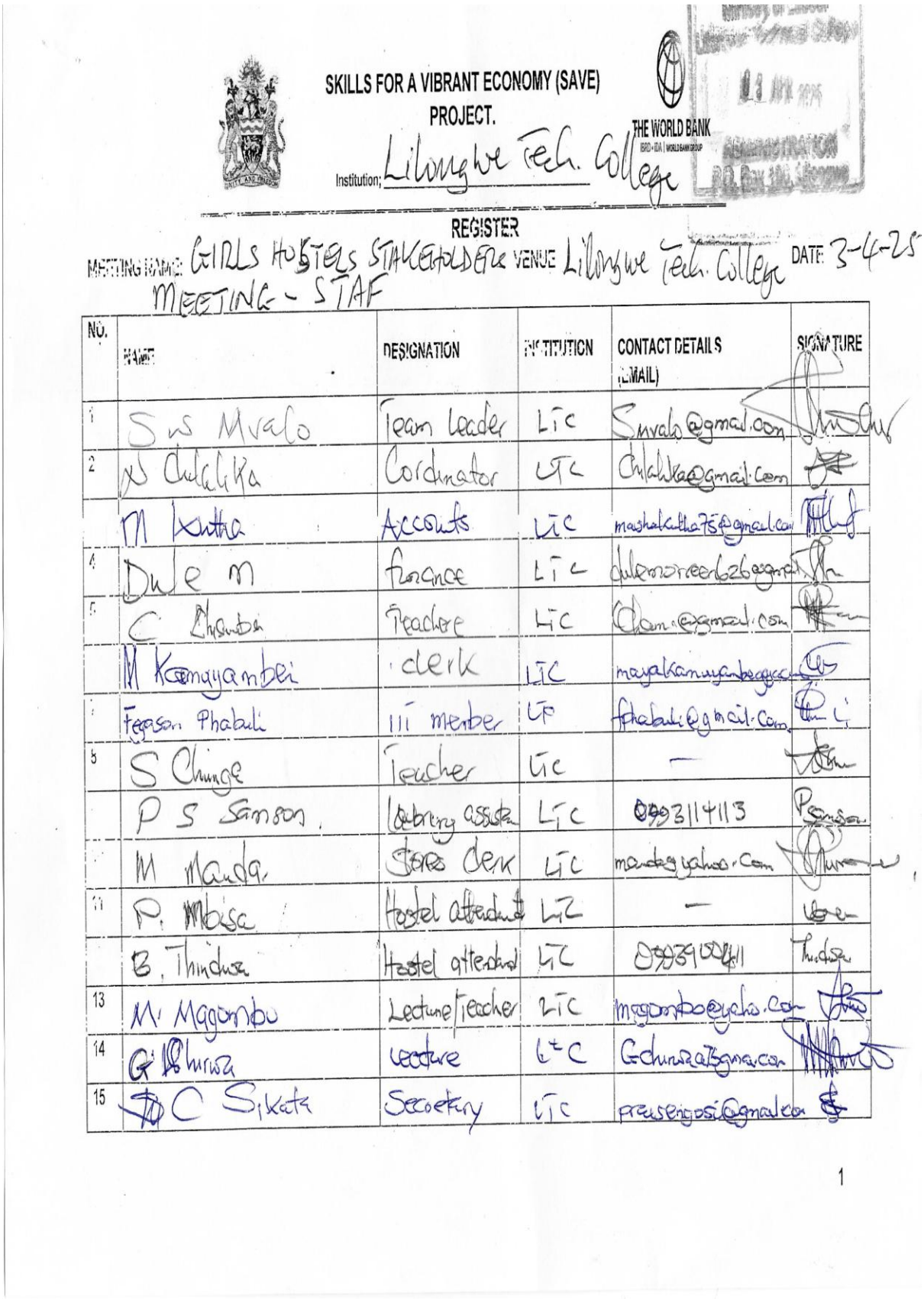
MEETING: GIRLS HOSTEL STAKEHOLDER MEETING - STUDENTS

VENUE: LILONGWE TECHNICAL COLLEGE

DATE: 3-4-25

NO.	NAME	DESIGNATION	INSTITUTION	CONTACT DETAILS MAIL	SIGNATURE
1	CHITUNIKO ZIKELO	STUDENT ACC	LTC	0997066931	
2	HAMIDZAH ICAMANGA	STUDENT ICT	LTC	0985580710	
3	BRIGHT BANDA	STUDENT AS	LTC	0998379183	B.B.
4	RUMBIDZA MUBILA	STUDENT BM	LTC	0990090859	Rum
5	DEBORAH CHAPUKAPUKA	STUDENT KNM	LTC	0999827296	
6	MEMORY BANDA	STUDENT PUB	LTC	0997976749	
7	AUDREY PHONDO	STUDENT CJ	LTC	0987062295	
8	TENDAI MWANDIRA	STUDENT CJ	LTC	0997255563	Tendai
9	GRACE CHIMBO	STUDENT VBR	LTC	0988561555	Grace
10	ALINAFE MALUA	STUDENT AMM	LTC	0981541719	Alinafe M.
11	SYMON CHIUNIRA	STUDENT AMM	LTC	0881687757	S Chiu...
12	Keith White	STUDENT EIE	LTC	0888306031	
13	Maureen matola	STUDENT EIE	LTC	0883090504	
14	Edward Kumtengo	STUDENT GF	LTC	0990083068	
15	EMMA MATAMBO	STUDENT GF	LTC	0880195082	Emma

A4.2.2 College Staff FGD Participants



SKILLS FOR A VIBRANT ECONOMY (SAVE) PROJECT.

THE WORLD BANK IBRD • IDA | WORLD BANK GROUP

Institution: Lilongwe Tech. College

REGISTER

MEETING NAME: GIRLS HOSTELS STAKEHOLDERS MEETING - STAF VENUE: Lilongwe Tech. College DATE: 3-4-25

NO.	NAME	DESIGNATION	INSTITUTION	CONTACT DETAILS (EMAIL)	SIGNATURE
1	S w Mvalo	Team leader	LTC	Smvalo@gmail.com	
2	N Chilaka	Cordinator	LTC	Chilakka@gmail.com	
	M Kuntha	Accounts	LTC	mashakuntha75@gmail.com	
4	Dulem	finance	LTC	dulemareeb26@gmail	
5	C Chaula	Teacher	LTC	Chau@gmail.com	
	M Kamayambei	clerk	LTC	mayakamayambe@gmail	
	Fegson Phabali	III member	LTC	fphabali@gmail.com	
6	S Chunge	Teacher	LTC	—	
	P S Samson	Catering assista	LTC	0993114113	
	M Manda	Store clerk	LTC	mandag@yahoo.com	
11	P. Mbisa	Hostel attendant	LTC	—	
	B. Thindwa	Hostel attendant	LTC	0993910411	
13	M. Magombo	Lecture/Teacher	LTC	magombo@yahoo.com	
14	G Chirwa	Lecture	LTC	Gchirwa@gmail.com	
15	C Sikata	Secretary	LTC	praisengosi@gmail.com	

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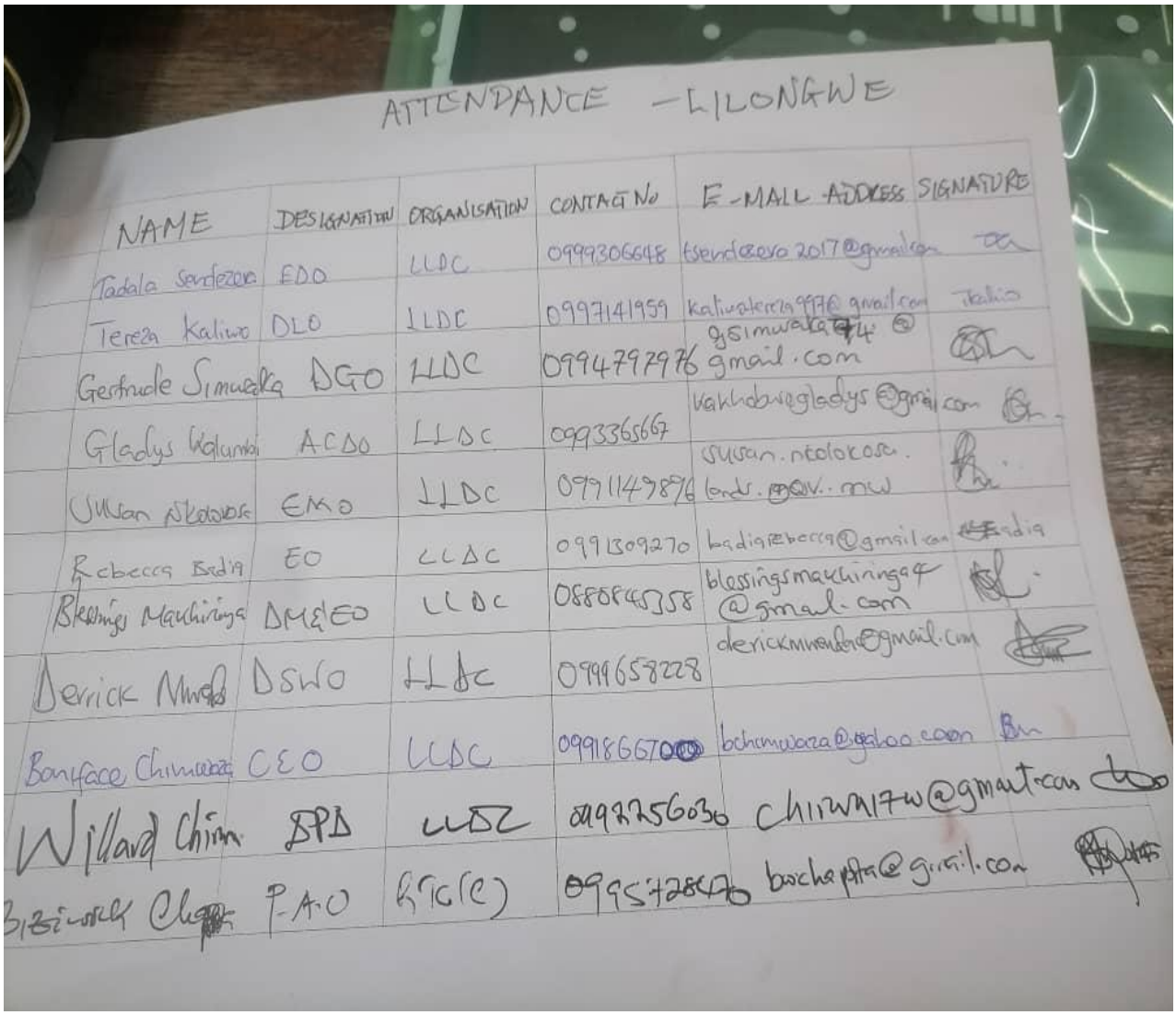
A4.2.3 Lilongwe District Council Officers



ATTENDANCE – LILONGWE

NAME	DESIGNATION	ORGANISATION	CONTACT No	E-MAIL ADDRESS	SIGNATURE
Tadala Sendezera	EDO	LLDC	0999306648	tsendezera2017@gmail.com	
Teresa Kaliwo	DLO	LLDC	0997141959	kaliwoteresa9976@gmail.com	
Gertrude Simwaka	DGO	LLDC	0994797976	gsimwaka74@gmail.com	
Gladys Kalumbi	ACDO	LLDC	0993365667	kalumbigladys@gmail.com	
Susan Nkolokosa	EMO	LLDC	0991149876	susan.nkolokosa@lands.gov.mw	
Rebecca Badiq	EO	LLDC	0991309270	badiqrebecca@gmail.com	
Blessings Machinga	DME/EO	LLDC	0880445358	blessingsmachinga4@gmail.com	
Derrick Mwafulirwa	DSWO	LLDC	0999658228	derickmwafulirwa@gmail.com	
Boniface Chimwaza	CEO	LLDC	0991866700	bchimwaza@yahoo.com	
Willard Chimwaza	DPD	LLDC	0992256030	chimwa17w@gmail.com	
Blessings Chapita	PAO	LLDC	0995728470	bchapita@gmail.com	

SKILLS FOR A VIBRANT ECONOMY (SAVE) PROJECT.

THE WORLD BANK
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Institution: Lilongwe Technical College

REGISTER

MEETING NAME: GIRLS HOSTEL STAKEHOLDERS MEETING - COMMUNITY LEADERS VENUE Lilongwe Technical College DATE 3-4-25

NO.	NAME	DESIGNATION	INSTITUTION	CONTACT DETAILS (EMAIL)	SIGNATURE
1	Lawrence Lidia	CRM	LTC	1981lawrencelida@gmail.com	
2	Kennedy Polani	CRM/Bleader	Nkwenye Kondo	Kengopolani1423@gmail.com	
3	S Misanga	Community	LTC	0883754683	
4	Madalitso Kaguwa	MOH	MOH	Mkaguwa0@gmail.com	
5	Felix B Mweke	Bleader	Bleade		
6	Sgt M Manase	Police Officer	POLICE	T Menes; Gmail.com	
7	Amasi Maxwell	HSA	MOH	amaxwell@gmail.com	
8	Christophe Jackson	DCSA	DCSA	christophejackson@gmail.com	
9	Sheick Omar	Bleade	Bleade	—	
10	Happy Phiri	Community Mem	Falls	0993585019	
11	Jacob Kamanga	V-DC Chair	[illegible]wi	0995418003	
12	Tadala Msowa	District Environmental Officer	LLDC	0999306648	
13					
14					
15					

Ministry of Labour
Lilongwe Technical College
03
ADMINISTRATION
P.O. Box 130, Lilongwe

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A4.3 Stakeholders Comments

SN	Name	Issue Raised	Recommendation
1	**Community (Biwi VDC Chair)**	**Positive Impacts** - The project will create jobs for locals, helping them support their families. - Students and community members can gain valuable work experience. - The new hostel will encourage more girls to attend college. - Local businesses will see more customers thanks to workers and students. - Landlords will benefit from new tenants moving into the area.	-Teach workers how to manage their income wisely to improve their lives. - Offer opportunities for students and locals to take part in construction and learn on the job. - Set aside areas for small business vendors. - Encourage respectful relationships between traders and construction workers. - Provide awareness sessions for workers on how to live harmoniously with the community.
		Negative Impacts - Classes might be disrupted due to construction noise and heavy machinery. - There's concern that relationships between community members and workers could lead to the spread of STIs. - Noise and smoke from the construction site could affect the health of those nearby. - Risk of accidents during the construction phase.	- Secure and isolate the construction area to limit disruption to classes. - Community leaders and health centers should talk to students and workers about safe behavior; provide condoms for those who need them. - Use well-maintained machines to reduce harmful emissions. - Make sure all workers have protective gear and proper training.
2	**Staff (Lilongwe Technical College)**	- The project will offer employment to locals, including those without formal skills. - The college will benefit from improved infrastructure, more students, and better equipment.	- Local residents should be given hiring priority. - Ensure site safety with proper security and quality control during construction.
		Negative Impacts - There is a risk of spreading illnesses (like STIs, COVID-19, monkeypox, etc.). - Trees may be cut down, and land could degrade. - Security concerns including theft.	- Educate students, workers, and the community about health risks. - Provide sanitation stations and supply condoms. - Replant trees and repair any land damaged by sand mining. - Boost site security.

		- The construction may stress water and electricity supply. - Improper waste disposal. - Learning may be affected by construction noise. - Traders in nearby areas face traffic dangers. - The school may struggle to keep up with rising student numbers. - New buildings will make the campus more attractive.	- Use alternative energy sources like solar; avoid using the school's resources. - Build separate toilets for workers. - Fence off the site and control noise. - Add traffic signs for safety. - Hire more teachers and improve resources. - Maintain new facilities and keep the campus clean. - Conduct awareness campaigns to reduce conflict.
3	Female Students FGD (Lilongwe Technical College)	**Positive Impacts** - New academic programs will be introduced. - Students studying construction can get hands-on experience. - More employment opportunities for locals. - Community businesses will benefit from increased demand. - More space for learning and student accommodation.	- Students should help promote the new courses in high schools. - Let students join the construction team to learn practically. - Ensure fair hiring between community members and students. - Encourage businesses to offer quality services and goods.
		Negative Impacts - Trees may be cut down during construction. - Some families may experience tension due to workers. - Dust from the site may affect health. - Heavy machinery might harm the environment. - Conflict could arise between students and workers.	- Plant trees once the project is done. - Talk to the community about relationships and STIs before work starts. - Provide masks to workers. - Use environmentally friendly practices. - Everyone involved should follow a clear code of conduct.
4	**Male Students FGD (Lilongwe Technical College)**	- The project can provide jobs for recent graduates. - Students can gain practical experience during construction. - Hostel congestion will be reduced. - College performance may improve.	- Hire skilled graduates to support their career growth. - Include student practicals in construction tasks. - Use the project for teaching, especially for practical courses like bricklaying. - Provide more on-campus housing options.
		Negative Impacts	

		- Increased risk of STIs from relationships between workers and students. - Noise pollution could disturb classes. - Dust from the site may cause air pollution. - Conflicts may develop between students and workers.	- Raise awareness about STIs and offer condoms. - Carry out noisy work outside class hours; use quieter equipment. - Spray water to control dust and fence off the area. - Encourage open communication and mediation to prevent conflicts.
5	**Community FGD (Biwi, Falls Estate, Mwenyekondo)**	**Positive Impacts** - New jobs will keep locals employed. - Workers will learn new skills and gain experience. - Youth will stay busy and out of trouble. - More young people will attend college. - Community businesses will benefit.	- Involve the community in overseeing project activities. - Protect youth by keeping them engaged in safe and meaningful work.
		Negative Impacts - Exposure to dangerous materials like cement. - STI risks from relationships between locals and workers. - Late payment or no pay for some workers. - Dust could cause health issues.	- Give workers proper safety gear. - Educate the community on STI prevention. - Make sure labor laws are followed for timely pay. - Use dust control methods and provide masks.
6	**(PNAO - Lilongwe District Council)**	**Positive Impacts** - Higher student enrollment. - The community will look better and feel more developed .- More job opportunities.	
		Negative Impacts - STI risk due to increased sexual activity. - Dust emissions.	- Provide STI awareness, condoms, and free testing services.
7	**Social Welfare Officer - Lilongwe**	**Positive Impacts** - Youth will have jobs and can afford to return to school. - With a new hostel, sexual abuse cases may decline.	- Encourage youth to work responsibly and also pursue their education. - Set clear hostel rules to protect students.

	District Council	- Locals will benefit from employment. - Students will gain hands-on experience.	
		Negative Impacts - Trees will be cut down. - Land could be damaged during excavation. - Dust could harm workers' health. - Increased pressure on water and energy resources. - More sexual relationships and possible child labor.	- Replant trees after work. - Avoid environmental damage from digging. - Provide masks and safety gear. - Create a water schedule or install boreholes. - Educate the community early; enforce child labor laws.
8	**District Gender Officer - Lilongwe District Council**	**Positive Impacts** - Increase the intake of female students -Business will grow for both women and men as locals sell to workers. - Local artisans and community members will get jobs. - Better Accommodation for female students - Hostel construction may reduce sexual abuse for female students.	- Support businesses for women to provide quality goods. - Let the community help in guiding the gender equality recruitment process. - Encourage the community to take pride in and care for the development.
		Negative Impacts - Gender-based violence may increase due to financial temptation. - Risk of child marriages for young girls near the site. - STI risk due to new workers. - Noise from machinery.	- Talk to men about being responsible with their money and relationships. -Raise awareness about sexual abuse and exploitation - Keep girls in school and away from construction areas. - Start community sensitization before the project begins.
9	**Assistant Community Development Officer - Lilongwe District Council**	**Positive Impacts** - The new hostel means more students can live on campus. -Students will spend less on off-campus accommodation. - More locals will be hired and improve their livelihoods.	- Encourage students to care for the infrastructure.
		Negative Impacts	

		- Trees will be cut down for construction. - Heavy equipment may lead to soil erosion. - Machinery could cause noise disturbances.	- Replant trees post-construction. - Fill borrow pits to avoid soil erosion. - Control noise levels.

Annex 5: GBV Management Plan

Prevention of GBV is a multifaceted effort which should deal with or focus on:

1. women empowerment or agent of change
2. women participation and capacity to influence decision making
3. women economic empowerment
4. increased access to sexual and reproductive health and rights
5. incorporate men and boys in efforts (as perpetrators, victims and agents of change)
6. social gender norms and behaviour transformation (challenging gender stereotyping)

The specific prevention measures have been included in a GBV Management plan to ensure the implementation of actions in this regard and to allow for close monitoring of the contractor.

Activities	**Action party**	**Responsibilities**
Stakeholder engagement	LTC PIU; District Social Welfare Office (DSWO)	• Identify GBV service providers in the area. • Identify vulnerable groups within the community. • Inform community members about the details of the project and the GBV risks associated with the project. • GBV training including what to do in case of grievance.
GBV training for GRC, contractor and staff, consultants and adjoining community members	LTC PIU; Contractor; DSWO	• Training and sensitisation of all workers associated with the project on GBV and how the project can contribute to GBV risks. • Training and sensitisation of adjoining communities on GBV risks, channels to report GBV incidents and services available for GBV survivors.
Codes of conduct signed and understood	LTC PIU; Contractor	• Ensure requirements in the CoCs are clearly understood by those signing. • Have the CoCs signed by all those with physical presence in the site. • Train construction workers on the behaviour obligation under the CoCs.
Handling GBV complaints (including support of survivors)	GRM	• Grievance Redress Committees to ensure confidential complaint uptake mechanisms are in place. • The GBV cases should be immediately reported to the Police (Victim Support Unit), District Social Welfare Office, psychosocial support institutions working in the project area or district.
Provision of separate, safe and easily accessible facilities for women and men working on the site	LTC PIU; Contractor	• Ensure construction sites have separate facilities like toilets and/or bathrooms for men and women.
Monitoring and reporting	LTC PIU; Contractor; DSWO	• Selection of monitoring indicators (such as: No. of reported cases of GBV; Resolved cases and time it took to address the complaints, No. of workers that have attained GBV training courses; No./percentage of workers that have signed CoC and No. of GBV cases that were referred to the GBV service provider). • Ensure new risks are uncovered and mitigated.

Annex 6: Code of Conduct for Contractor

Contractors under the SAVE project will be required to prepare a code of conduct that they shall follow when undertaking construction works. These rules shall be part of the assessment criteria when selecting the contractor. A satisfactory code of conduct will contain obligations on all project staff (including sub-contractors and day workers) that are suitable to address the following issues, as a minimum. Additional obligations may be added to respond to concerns of the region, location, project sector, or specific project requirements. The issues to be addressed include:

1. Compliance with applicable laws, rules, and regulations of the jurisdiction.
2. Protection of children (including prohibitions against abuse, defilement, or otherwise unacceptable behaviour with children, limiting interactions with children, and ensuring their safety in project areas).
3. Sexual harassment (for example to prohibit use of language or behaviour, in particular towards women or children, that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate).
4. Violence or exploitation (for example the prohibition of the exchange of money, employment, goods, or services for sex, including sexual favours or other forms of humiliating, degrading or exploitative behaviour).
5. Compliance with applicable health and safety requirements (including wearing prescribed personal protective equipment, preventing avoidable accidents and a duty to report conditions or practices that pose a safety hazard or threaten the environment).
6. The use of illegal substances.
7. Non-Discrimination (for example based on family status, ethnicity, race, gender, religion, language, marital status, birth, age, disability, or political conviction).
8. Interactions with community members (for example to convey an attitude of respect and non-discrimination).
9. Sanitation requirements (for example, to ensure workers use specified sanitary facilities provided by their employer and not open areas).
10. Avoidance of conflicts of interest (such that benefits, contracts, or employment, or any sort of preferential treatment or favours, are not provided to any person with whom there is a financial, family, or personal connection).
11. Respecting reasonable work instructions (including regarding environmental and social norms).
12. Protection and proper use of property (for example, to prohibit theft, carelessness or waste).
13. Duty to report violations of this Code; and
14. Non-retaliation against workers who report violations of the Code, if that report is made in good faith.

The Code of Conduct should be written in local and plain language and signed by each worker to indicate that they have:

- Received a copy of the code and that it was explained to them.
- Acknowledged that adherence to this Code of Conduct is a condition of employment; and
- It is understood that violations of the Code can result in serious consequences, up to and including dismissal or referral to legal authorities.

Annex 7: Child Safety Management Plan

In School Communities, there will be many instances that might expose children and young people to construction workers, which may lead to child safety risks. These forms of child risks could be in the form of SAE, accidental harm, physical abuse, Psychological/emotional Abuse and online abuse.

Type of Risk	Management of Risk	Action Party
Recruitment of inappropriate personnel	• Child safety training • Reference checking • Pre-screening interviews • Criminal history checks • Working with children checks • Probation period	Contractor
Grooming	• Code of conducted • Training for all staff, volunteers, leaders etc.	Contractor, District Social Welfare Office
Use of images or video of children and young people without parental consent	• Code of Conduct. • Training for all staff, volunteers, leaders etc. • Photo and video policies.	Contractor
Misconduct unreported and failure to address behaviour surrounding misconduct	• Training for all staff, volunteers, leaders etc. • Code of conduct and child protection policies. • Procedures and protocols responding to misconduct.	Contractor
Unsafe environment leading to occurrence of accidents	• First aid kit must be readily available on site. • Appoint first aid officers. • Conduct risk assessment of all construction activities and identify risks management options.	Contractor

Annex 8: Traffic Management Plan

The following section guides contractor when developing a Traffic Management Plan, which aims to minimise traffic congestion, enhance road safety, and ensure smooth transportation operations.

A8.1 Assessment and Planning

- **Traffic Impact Assessment (TIA)**: Conduct a thorough TIA to understand the potential impact of construction activities on local traffic patterns. This should include peak traffic times, road capacities, and key congestion points.
- **Stakeholder Consultation**: Engage with local authorities, community leaders, and stakeholders to discuss the proposed traffic management measures and obtain necessary approvals.

A8.2 Traffic Control Measures

- **Temporary Traffic Signals and Signs**: Install temporary traffic signals and signs around the construction site to guide drivers and pedestrians. Clearly mark detour routes and alternative pathways.
- **Road Closures and Diversions**: Plan and schedule road closures and diversions during off-peak hours to minimize disruption. Provide advance notice to the public about these changes.
- **Dedicated Construction Routes**: Designate specific routes for construction vehicles to minimize their impact on general traffic. Ensure these routes avoid high pedestrian areas and critical college access points.

A8.3 Construction Logistics

- **Staging Areas**: Establish staging areas for construction materials and equipment to reduce on-site congestion. These areas should be located away from main traffic routes.
- **Scheduled Deliveries**: Coordinate the timing of deliveries to avoid peak traffic hours. Use smaller, more frequent deliveries if necessary to reduce the impact on traffic flow.

A8.4 Pedestrian Safety

- **Pedestrian Pathways**: Create safe and clearly marked pedestrian pathways around the construction site. Use barriers to separate pedestrians from construction activities.
- **Crossing Guards**: Deploy crossing guards at critical points to assist pedestrians, especially during peak hours.

A8.5 Public Communication

- **Information Dissemination**: Use multiple channels (e.g., local radio, social media) to keep the public informed about construction schedules, road closures, and alternative routes.

- **Signage and Maps**: Provide clear signage and maps around the college to help drivers and pedestrians navigate the area during construction.

A8.6 Monitoring and Adjustments

- **Traffic Monitors**: Deploy traffic monitors to observe and report on traffic conditions in real-time. Use their feedback to make immediate adjustments to traffic control measures.
- **Regular Reviews**: Conduct weekly reviews of traffic management measures and make necessary adjustments based on feedback from stakeholders and observed traffic patterns.

A8.7 Post-Construction

- **Site Restoration**: Ensure that all temporary traffic control devices are removed and the area is restored to its original condition. Repair any road surfaces or pedestrian pathways damaged during construction.
- **Feedback and Evaluation**: Collect feedback from the community and stakeholders on the effectiveness of the traffic management plan. Use this feedback to improve future projects.

Annex 9: Grievance Redress Mechanism

The Project Grievance Redress Mechanism

Processes and Institutional Arrangements of the GRM

The Grievance Redress Mechanism (GRM) for the SAVE Project is established at two levels. These include the:

A. Institutional & Community Level:

There shall be two committees at the Institutional & Community Level.

- ✓ **Institutional & Community Grievance Redress Management Committees (ICGRMC)** has been established by Lilongwe Technical College to manage grievances at the Institutional & Community level. For this GRM, a community comprises the Group Village Headman area where Lilongwe Technical College is located. The committee comprises Lilongwe staff and students' representatives, affected community representatives, one women's representative, and one representative from VDC. The Group Village Head may attend, where necessary. The committee is the lowest and an entry point of grievances at the institutional and community level. The committee at this level shall record, vet and hear cases as submitted to them by project-affected persons. If the aggrieved party is satisfied with the resolution, the case will be closed. For an effective GRM, Lilongwe Technical College shall ensure that the following five main steps are achieved whenever handling grievances. These steps include; grievance reporting, complaint handling and assessment, case resolution and closure, registry update and GRM monitoring and evaluation.

- ✓ **Workers Grievance Redress Management Committee (WGRMC)** will be established to manage work related grievances. Membership has to comprise of two workers' representatives, Lilongwe Technical College representative, Contractor representative and a representative from the District Labor Office.

All unclosed cases from these Institutional & Community Level Grievance Redress Management Committees shall be referred to Project Implementation Unit Grievance Redress Management Committee (PIUGRMC).

B. PIU Level

- ✓ **Project Implementation Unit Grievance Redress Management Committee (PIUGRMC)** In the event that the case was not closed at Institutional & Community Level, the case will be referred to the PIUGRMC. The PIUGRMC shall hear the case and review the decisions made earlier by the two lower committees. If the aggrieved party shall accept the resolution made, the case shall therefore be closed at this level.

Referral grievances will be investigated in detail to determine the cause of the unsatisfactory outcome and to attempt to resolve and close the grievance. When a complainant is not satisfied with the resolution offered by the Project Grievances Redress Committee, the grievance can be referred to other institutions, for example the District Labour Office in the case of employment grievances or the courts of law. Where the case was not closed at this level, the aggrieved party shall be advised to seek justice from other institutions (for example the District Labour Office in the case of employment grievances or the Court of Law. The decision made by the Court of Law shall be final.

Grievance Reporting and Grievance Recording

The grievance redressal committee will have to make available multiple ways for grievance reporting. Complaints of grievances may be 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 redressal committees.
- **Grievance Box**: these will have to be placed in strategic places around the Lilongwe Technical College Campus.
- A **GRM Focal Person's Phone Number** with WhatsApp and text facilities (+265999765718)
- A GRM Focal Person's **Email Address**. (rmbeye18@yahoo.com)

Responding to and Resolving Complaints

Complainants should be attended to and responded to within a maximum period of two weeks after receipt of the complaint regardless of whether a decision has been reached. The Safeguards Specialist appointed by the Lilongwe Technical College will be the designated officer responsible for responding. 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 recourse and where to take the complaint to.
iii. If a decision has not been reached by the committed timeframe, the complainant will be provided with a progress report and an indication of a likely date of conclusion.

Assessment of a Complaint / Grievance Received

When a complaint is received, an assessment shall be done to determine whether the complaint or grievance is related to the 2-storey building project implementation or not. If the complaint is not related to the project the complainant shall be advised to channel their complaint to the relevant institution. If the complaint or grievance is related to the project, the GRM committee shall hear the case and make the necessary follow-ups to establish the truth of the matter. The outcome of the analysis shall be communicated to the complainant within a period of 14 days.

Resolution and Closure

Where a resolution has been arrived at and the complainant accepts the resolution, the complainant shall be required to sign the resolution and closure section in the Grievance Resolution Agreement Form. A member of the GRM committee (preferably the Chairperson or Secretary) shall also be required to counter sign. This shall signify that the complaint or grievance which was presented, has been fully discussed and closed. In case of a referral, the same members shall be required to sign signifying that the case was not closed and has been referred to another entity.

Registry and Monitoring

All grievances received should be recorded into a publicly accessible register for grievances that can easily be tracked and monitored. The register will present 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.

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 shall have an individual reference number that can be tracked and whose recorded actions are complete. The grievance registry should contain a record of the person responsible for the complaint and should have 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

Annex 10: Labour Management Plan

The construction phase of the project requires the employment of numerous skilled and unskilled workers. There are risks of unequal or unfair treatment in hiring and during implementation, of forced and child labour, health and safety at work, among other risks. To effectively implement the ESMP, the Contractor is to develop a Labour Management Plan (LMP) that will help define and manage all labour- related matters during the implementation of this Project.

It is expected that the project will engage the following categories of workers, : employees, contracted workers (consultants and contractors), community workers, migrant workers and primary supply workers.

Objectives

The purpose of the Labour Management Plan is to promote safety, health, and welfare at work; to promote the fair treatment, non-discrimination, and equal opportunity of project workers; to protect project workers, including vulnerable workers such as women, persons with disabilities, children (of working age), migrant workers, contracted workers, and primary supply workers, as appropriate; 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 project workers in a manner consistent with national law; and to provide project workers with accessible means to raise workplace concerns.

Measures Needed

The Contractor will address these risks by undertaking site specific risk assessments and incorporating mitigation measures for the identified risks into the program specific environmental, social, health, and safety management plans. See the table outlining potential mitigation measures at the end of this annex.

In addition, the Contractor shall establish and implement the following:

i. Grievance Redress Mechanism especially the WGRM to ensure workers have ability and opportunity to lodge complaints or concerns (refer to Annex 9).
ii. Workers Code of Conduct to manage the environmental and social risks related to the workers and the works including Trafficking in Persons, sexual exploitation, sexual abuse and sexual harassment (refer to Annex 6)

Monitoring & Guidance:

The LMP applies to all project workers, whether full-time, part-time, temporary, seasonal, or migrant. The LMP is applicable to the Project in the following manner:

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

This LMP identifies a number of risks, such as:

- Occupational Safety and Health risks during construction and operation;

- Risk of communicable diseases, including Malaria and Cholera, to the workforce, students, and staff
- Noncompliance with labour laws and regulations by the contractors;
- Gender Based Violence GBV (Sexual Harassment, Sexual Exploitation and Abuse, Rape and Discrimination)
- Risk of contracting COVID-19, HIV and AIDS and STIs;
- Risk of exposure to hazardous materials and wastes
- Risk of excess exposure to noise and vibrations
- Labour conflicts and work conditions

Annex 11: Waste Management Plan

Introduction

The purpose of this Waste Management Plan (WMP) is to minimize the amount of waste produced due to activities resultant of the project as described in this document, for the benefit of the environment and to maximize cost savings. This plan also showcases the project's commitment to taking all necessary steps to ensure that the generation, collection, separation, storage, transportation and disposal of all wastes generated during all phases of project operations will be conducted in a safe, efficient and environmentally responsible manner.

Objectives of the WMP

The objectives of this include:

- Waste Minimization through waste avoidance, reduction, reuse, and recycling.
- Protect the health and safety of people
- Avoid or mitigate any potential negative impacts on all elements of the environment – including, but not limited to, people, flora, fauna, air, surface and groundwater resources.
- Ensure due diligence is followed by all project personnel
- Track waste generation, handling and disposal to assess whether waste management is being carried out as per the WMP and its associated directives
- Avoid costly clean-up through prevention
- Ensure a logical and efficient plan for waste collection, sorting and disposal that reduces the number of times the waste is handled
- Ensure that all contaminated material uncovered on a construction site are excavated and disposed of in an environmentally responsible manner

Types of Wastes on the project

There are various types of wastes that would be generated during construction and operation phases of the project and these include the following:

i. Construction waste i.e. excavated materials like soil and rock, cement blocks, concrete, timber and others emanating directly from construction activities
ii. Domestic waste i.e. paper, food, packaging, plastic bottles etc.
iii. Hazardous waste i.e. waste oil, oil filters and batteries from machinery etc.
iv. Sewage i.e. faeces, urine etc.
v. Liquid waste i.e. waste oil, petroleum products, paint etc

Waste Handling and Disposal

The following handling procedures, developed based on IFC's guidelines for Waste Management Facilities (2007), will be adopted as part of the Project's waste management program. Waste collection, handling, and transport guidelines include, but are not necessarily limited to, the following:

- A routine schedule will be established for domestic waste collection and disposal;
- Waste generators will be provided with appropriate waste disposal containers;
- Wastes will be segregated at source in order to simplify the disposal process, using colour coded and labelled bins;

- Enclosed refuse vehicles or vehicles equipped with tarps will be used for the domestic waste collection;
- Waste handling will be minimized during operations; and
- Waste containment will be maximized during operations.

Annex 12: Health and Safety Management Plan

The Contractor shall protect the health and safety of workers by providing the necessary and approved protective clothing and by instituting procedures and practices that protect the workers from dangerous operations. The contractor shall be guided by and shall adhere to the relevant national Labor Regulations for the protection of workers. Management of different key health and safety hazards relevant to the construction activities are presented below.

- Prepare a Traffic Management Plan to ensure safety of workers, road users and community members;
- Install enclosures and cover on material storage piles, and increase moisture content;
- Implement dust suppression techniques, such as applying water or non-toxic chemicals along RoW to reduce dust from moving vehicles;
- Avoid burning solid waste;
- Remove materials from the bottom of piles to minimize dust re-suspension;
- Cover transport vehicles.
- Hazardous materials storage and handling facilities should be constructed away from traffic zones and should include protective mechanisms (e.g., reinforced posts, concrete barriers, etc.) to protect storage areas from vehicle accidents.
- Covered and ventilated temporary storage areas should be designed to facilitate collection of potentially hazardous leaks and spills, including the use of sloped surfaces to direct spill flows, and the use of catch basins with valve systems to allow spills and releases to enter a dead-end sump from which spilled materials can be pumped/recovered.
- Where hydraulic equipment is used over or adjacent to water or other sensitive receptors, biodegradable hydraulic oils should be used.
- Include secondary containment for above ground liquid storage tanks and tanker truck loading and unloading areas.
- Fuelling areas should be equipped with containment basins in areas with a high risk of accidental releases of oil or hazardous materials (e.g., fuelling or fuel transfer locations). Fuel dispensing equipment should be equipped with “breakaway” hose connections that provide emergency shutdown of flow should the fuelling connection be broken by movement. Fuelling equipment should be inspected prior to fueling activities to ensure all components are in satisfactory condition.
- Prepare a spill prevention, control, and countermeasure plan;
- Provide portable spill containment and cleanup equipment on site and provide training on how to use equipment.
- Train workers in lifting and material handling techniques, including the placement of
- weight limits above which mechanical assists or two-person lifts are necessary;
- Plan work site layout to reduce the need for manual transfer of heavy loads;
- Select tools and design workstations that reduce force requirements and holding times, and which promote improved posture, including, where applicable, user adjustable work stations;
- Implement administrative controls into work processes, such as job rotations, rest, or stretch breaks;
- Implement good housekeeping practices, such as sorting and placing loose construction materials or demolition debris in established areas away from foot paths;

- Clean up excessive waste debris and liquid spills regularly;
- Locate electrical cords and ropes in common areas and marked corridors;
- Use slip retardant footwear.
- Conduct sawing, cutting, grinding, sanding, chipping or chiseling with proper guards and anchoring as applicable;
- Maintain clear traffic ways to avoid driving of heavy equipment over loose materials;
- Wear appropriate PPE, such as safety glasses with side shields, face shields, hard hats, and safety shoes.
- Plan and segregate the location of vehicle traffic, machine operation, and walking areas, and control vehicle traffic through the use of one-way traffic routes, establishment of speed limits, and on-site trained flag-people wearing high-visibility vests or outer clothing coverings to direct traffic;
- Ensure the visibility of personnel through the use of high visibility vests when working in or walking through heavy equipment operating areas, and training workers to verify eye contact with equipment operators before approaching the operating vehicle;
- Ensure moving equipment is outfitted with audible back-up alarms;
- Use inspected and well-maintained lifting devices that are appropriate for the load, such as cranes, and securing loads when lifting them to higher job-site elevations;
- Minimize the risk of free fall of materials by installing telescoping arm loaders and conveyors; inspect all slings before use;
- Equip lifting appliances with means of emergency escape from the driver's cabin and a safe means for the removal of an injured or ill driver.
- Control site-specific factors which may contribute to excavation slope instability including, for example, the use of excavation dewatering, side-wall support, and slope gradient adjustments that eliminate or minimize the risk of collapse, entrapment, or drowning;
- Provide safe means of access and egress from excavations, such as graded slopes, graded access routes, or stairs and ladders;
- Avoid the operation of combustion equipment for prolonged periods inside excavation areas where other workers are required to enter unless the area is actively ventilated.

Annex 13: Emergency Preparedness and Response Plan Guidelines

Appropriate resources must be provided to respond to accidental and emergency situations for operations and activities during construction phase. The contractor will produce the EPRP for addressing training, resources, responsibilities, communication, and all other aspects required to effectively respond to emergencies associated with their respective hazards.

This Emergency Preparedness and Response Plan (EPRP) is intended as a practical working document for the Project. The purpose of this document is to provide the basic guidelines on how to respond to potential emergency situations that may arise from the Project. These potential emergency situations include medical emergencies and fires. All activities associated with the Project will require a site-specific EPRP to mitigate impacts, which meet or exceed all applicable regulations.

The objectives of the EPRP are as follows:

- Protect the communities and the environment through the development of emergency response strategies and capabilities.
- Set out the framework for hazard identification to define procedures for response to the situations including the development of contingency measures.
- Structure a process for rapid and efficient response to and manage emergency situations during the Construction works.
- Assign responsibilities for responding to emergency situations.

Undertake the Risk Assessment

Regular risk assessments should be conducted to identify potential hazards related to the construction works. Update the risk assessment periodically and whenever there are significant changes to the project.

A7.1 Spill Prevention and Management Plan

Liquid waste spills that are not appropriately managed have the potential to harm the environment. By taking certain actions, the likelihood of spills can be reduced, and their effect minimized. To avoid spills and to help the clean-up process of any spills, the construction contractors, supervising engineer, and the management and staff of SAVE project should be aware of spill procedures. By formalizing these procedures in writing, staff members can refer to them when required thus avoiding undertaking incorrect spill procedures.

A detailed spill management plan will be prepared for the construction phase. These plans will contain the following:

- Identification of potential sources of spill and the characterization of spill material and associated hazards.
- Risk assessment (likely magnitude and consequences)
- Steps to be undertaken taken when a spill occurs (stop, contain, report, clean up and
- record).

A7.2 Other Emergencies

Response plans for other emergencies, including but not limited to the following, will also be developed: Extreme weather events such as extreme heat, heavy downpour and consequent flooding, Vehicle accident, Electrical and fire hazards, Power outages and equipment Failure and Community unrest and worker protests.

A7.3 Roles and Responsibilities

With respect to this ERP, the construction contractor has the responsibility to:

- Provide emergency response services and to structure and coordinate emergency response procedures for the Project;
- Ensure that specific emergency responsibilities allocated to them are organised and undertaken; and
- Ensure that employees and contractor third parties are trained and aware of all required emergency procedures.

Roles, responsibility and authority will be defined, documented and communicated in order to facilitate effective emergency response through implementation of the EPRP. Management will provide resources essential to the implementation and control of the EPRP including: human resources, technology, and financial resources.

The construction contractor will appoint specific emergency response representative(s) who, irrespective of other responsibilities, will have defined roles, responsibility, and authority for emergency response of the facility. The sections below provide more specific responsibilities related to each position.

A7.3.1 Emergency Response Representatives:

- Actively participate in the facilities planning, implementation and reviewing of the sites ERP.
- Ensure all staff members are aware of the procedures outlined in the ERP.
- Setting up practical training schedules (drills) annually to ensure that all staff are prepared in case of an emergency.
- Report any incidents that occur to senior management staff and/or the relevant authorities.
- Ensure that the appointed Emergency Response team members undergo the correct training.
- Appoint an appropriate Emergency coordinator.

A7.3.2 First Aid Representatives: Ensure that the first aid box is properly stocked to meet all foreseeable incidents which may occur and ensure that there is always a first aider available at each shift.

A7.3.3 Fire Wardens: ensure that the firefighting equipment is regularly serviced, and attend the relevant firefighting training.

A7.3.4 Emergency Co-Ordinator

- Ensure that an update of the EPRP is kept on file and is easily accessible in case of an emergency.
- Ensure that all staff have been issued with the correct PPE.

- Ensure that a list of emergency telephone numbers, including those of the Emergency Response team, are visible to all staff at several locations around the facility.
- In the case of an emergency, the emergency coordinator is responsible for undertaking roll call at the designated Assembly points.

A7.4 Emergency Communications and Coordination Plan

In an emergency where there is an immediate threat to communities, personnel or the environment, the Project Manager will be notified immediately. The Project Manager will dispatch the Emergency Response Coordinator who will determine the appropriate plan of action depending on the severity of the emergency, the people affected, and the need to evacuate.

If there is a developing emergency or an unusual situation, where an emergency is not imminent, but could occur if no action is taken, the Senior Operations Manager (or if the Senior Operations Manager is absent) the Environmental Manager) is to be informed immediately. Once the emergency or unusual situation has been managed, the correct incident/near miss must be reported to the AfDB.

If an emergency poses a direct threat to communities in the area, the Environmental Officer and/or Social Officer will advise persons in the vicinity of the emergency to evacuate due to the potential risk. The appropriate government authorities will immediately be notified of such an emergency evacuation. The Emergency Response Coordinator will be tasked with responding to the potential risk. Should the emergency be such that it can be managed by ESA, equipment and personnel will be deployed to the maximum extent necessary, so as to prevent/minimise potential risks.

A7.5 Response to Incidents

An incident is any occurrence that has caused, or has the potential to cause, a negative impact on people, the environment or property (or a combination thereof). It also includes any significant departure from standard operating procedures. The reporting and investigation of all potential and actual incidents that could have a detrimental impact on human health, the natural environment or property is required so that remedial and preventive steps must be taken to reduce the potential or actual impacts because of all such incidents.

Any incident must immediately be reported to the relevant authorities and all the necessary documentation must be completed and submitted to the relevant authorities within the prescribed timeframes.

A7.6 Verification

An environmental emergency response system will be developed for the execution of emergency drills that will include the following, inter alia:

- Fire Drills.
- Emergency Evacuation Drills.
- Medical and Environmental Drills.

Reporting and monitoring requirements for the plan will include: monthly inspections and audits; Quarterly reporting of accidents/ incidents; Reporting at the time of the incident and monthly spill reporting, and Annual reporting on training.