

**MALAWI**



**MALAWI GOVERNMENT  
MINISTRY OF EDUCATION**

*P172627*

**SKILLS FOR A VIBRANT ECONOMY PROJECT**

**ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN FOR  
CONSTRUCTION AND OPERATION OF A PLUMBING AND  
ELECTRICAL INSTALLATION WORKSHOP AT NAMITETE  
TECHNICAL COLLEGE IN LILONGWE DISTRICT, MALAWI.**

**NOVEMBER 2024**

## **Executive Summary**

This is an Environmental and Social Management Plan (ESMP) for constructing and operating a plumbing and electrical installation workshop at Namitete Technical College in Lilongwe District. This ESMP supports the environmental and social due diligence for activities of the proposed constructing and operating a plumbing and electrical installation workshop at Namitete Technical College financed by the World Bank under the Skills for a Vibrant Economy (SAVE) Project and is categorised as moderate risk. The Government of Malawi is implementing the SAVE project through the Ministry of Education and the Ministry of Labour, with funding from the World Bank. 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.

The proposed site is at Namitete Technical College, 4.7 km from the M12 (Lilongwe-Mchinji) road. The Lilongwe Diocese of the Catholic Church owns the college. It is located on the colleges' idle land on the northern campus and, as such, will not require land purchase or compensate any person or institution. It is bordered by staff houses (east and south), a secondary road (north), and an old football pitch (west). The site is within a 500-meter radius of other church institutions, including St. Gabriel Mission Hospital, Namitete Catholic Parish, Namitete Primary School, and Likuni Phala Factory.

The building will measure approximately 38.05 meters in length and 27.30 meters in width, with a maximum height of 5.5 meters. It will house various rooms, including two primary workshops: Plumbing Workshop 1 (89 m<sup>2</sup>) and Electrical Installation Workshops 1 and 2 (112 m<sup>2</sup> and 109 m<sup>2</sup> respectively), all will feature cement screed flooring and acrylic PVA painted walls. The facility will include offices ranging from 9 m<sup>2</sup> to 13 m<sup>2</sup>; all finished with 600 x 600 porcelain floor tiles and acrylic PVA-painted walls. The building will be constructed on a 600 x 200 strip concrete foundation, the building will feature 400 x 200 concrete block walls with a 1:4 mortar mix and plaster finish internally and externally. The roofing will consist of steel trusses with a 5-degree slope and 26-gauge IBR sheets, complemented by a stormwater drainage system per the engineer's specifications. 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 80 people.

The ESMP preparation involved desk studies, site inspections, stakeholder consultations, and documentation. Desk studies reviewed project documents and various national legislations. A site visit on 13 and 17 March 2024 assessed environmental, social, health, and economic factors, focusing on identifying potential impacts and ensuring compliance with national and international standards. This report provides a management and monitoring plan with an implementation budget

of MK56,175,000. The anticipated impacts from the project have been summarised in the subsections below.

Positive Impacts:

- Enhanced Skills Development
- Improved Educational Facilities
- Infrastructure Improvement
- Creation of Job Opportunities

Negative Impacts:

- Disruption of the Provision of Education Services
- Disruption of Play Area
- Increased Risks of GBV, SEA, and Defilement
- Potential Accidents to the Community
- Increased Incidences of Child Labour
- Temporary Air Quality Deterioration
- Elevated Noise Levels from Machinery and Construction Activities
- Increased Occupational Accidents and Injuries On-site
- Discriminatory Working Conditions
- Infectious Disease Impact
- Generation of Solid Wastes, Spills, and Effluent
- Increase in Electricity Consumption
- Increase in Water Consumption
- Increased soil erosion and sedimentation
- Degradation of Vegetation and Habitat Loss
- Risk of Soil and Water Contamination
- Increased Dust emission
- Increased risk of traffic disruption
- Increased risk of community health and safety
- Increased risk of water pollution
- Increased risk of Fire Hazard

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## **List of Acronyms**

AIDS	Acquired Immunodeficiency Syndrome.
CMC	College Management Committee
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 Standard
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
NTC	Namitete Technical College
OSH	Occupational Safety and Health
PDO	Project Development Objective
PPE	Personal Protective Equipment
URTI	Upper Respiratory Tract Infection
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**

The ESMP supports the environmental and social due diligence for activities of the proposed construction and operation of a plumbing and electrical installation workshop at Namitete Technical College financed by the World Bank under the Skills for a Vibrant Economy (SAVE) Project and is categorised as moderate risk. The project costs are estimated to be MK2,100,000,000 and the expected construction duration is 12 months. The SAVE 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 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 plumbing and electrical installation workshop at Namitete Technical College in Lilongwe District. The proposed project will address the skills gap and enhance youth employability after obtaining market-relevant practical skills. This project will also support the construction industry by supplying skilled plumbers and electricians had modern tools and techniques. The Ministry of Education and Labour will implement the Project activities.

This ESMP follows the World Bank Environmental and Social Framework (ESF), the Environment Management Act (2017), and its associated regulations 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) of the World Bank ESF and national requirements. More specifically, the ESMP aims to (a) assess the potential environmental and social risks and impacts of the proposed Project and propose mitigation measures; (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; and (f) establish the budget requirements for implementation of the ESMP. The implementation budget of this ESMP is MK56,175,000

The ESMP preparation involved desk studies, site inspections, stakeholder consultations, and documentation. Desk studies reviewed project documents such as SAVE project ESMF, Stakeholders Engagement Plan, Labour Management Plan, World Bank Environmental, Health and Safety Guidelines, Environment Management Act, Occupational Safety, Health and Welfare Act, Sanitation Policy, and Public Health Act among others. The study team conducted field

surveys in the project sites between 13-17 March 2023. It assessed environmental, social, health, economic, and legal factors, identifying potential impacts and ensuring compliance with national and international standards. Focus Group Discussions were held with various Namitete Technical College community groups, including academic and support staff, male and female learners, St. Gabriel Parish, St. Gabriel Hospital, Namitete Primary School staff, and Msangwa Village residents.

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 Procedures (LMP) and the Environmental and Social Commitment Plan (ESCP). Furthermore, the contractor's ESMP and specific tools will enhance the implementation of this ESMP. specific tools include the Labour Management Plan (LMP), Gender Violence Management Plan (GBVMP), Child Protection Management Plan (CPMP), and Traffic Management Plan (TMP). Workers Grievance Redress Mechanism (WGRM), Code of Conduct (CoC), COVID19 Construction Sites Prevention Guidelines, Community Grievance Redress Mechanism (CGRM), 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 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 TVET and Higher Education Reforms, Student loans, Industrial links, Digital technology and Safeguards, Capacity Building, and Technical Assistance among other systemic issues.

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

Under Component 1, the project supports the construction of the workshop building which will be a modern, well-equipped facility poised to support advanced technical and vocational training at the college.

### **2.2 Project location**

The proposed site is at Namitete Technical College, 4.7 km from the M12 (Lilongwe-Mchinji) road (see map in Annex 1 - A1.1). The college is managed by the Lilongwe Diocese of the Catholic Church. It is located on the church land with St. Gabriel Mission Hospital, Namitete Parish, Namitete Primary School, and Likuni Phala Factory within a 500-meter radius (see map in Annex 1 - A1.2). The workshop site is located on idle land on the northern campus side with two trees (Gmelina and Jacaranda) and, as such, will not require land purchase or compensate any person or institution. It is bordered by staff houses (east and south), a secondary road (north), and an old football pitch (west).

### **2.3 Nature of the project**

The workshop building at Namitete Technical College is an expansive facility designed to enhance technical and vocational education with designs provided in Annex 2. The workshop building is a modern, well-equipped facility poised to support advanced technical and vocational training. The building measures approximately 38.05 meters in length and 27.30 meters in width (Annex 2 – A2.1), with a maximum height of 5.5 meters (Annex 2 – A2.2). It houses various rooms, including two primary workshops: Plumbing Workshop 1 (89 m<sup>2</sup>) and Electrical Installation Workshops 1 and 2 (112 m<sup>2</sup> and 109 m<sup>2</sup> respectively), all featuring cement screed flooring and acrylic PVA painted walls. The facility includes offices ranging from 9 m<sup>2</sup> to 13 m<sup>2</sup>; all finished with 600 x 600

porcelain floor tiles and acrylic PVA-painted walls. Several storage rooms, each 7 m<sup>2</sup>, also feature cement screed flooring.

Additionally, the building comprises a 15 m<sup>2</sup> Human Resource room and gender-specific amenities for staff and students, including ladies' and gents' facilities (7 m<sup>2</sup> each). The building will have 2 staff toilets (male and female), 5 toilets for students (3 for females and 2 for males), 3 urinals for males, 1 changing room for females and 2 disability friendly washrooms for both male and female. All these will be equipped with 600 x 600 porcelain floor tiles, ceramic wall tiles up to 2.1 meters and suspended modular ceilings. The corridor and lobby areas are spacious, measuring 126 m<sup>2</sup> and 24 m<sup>2</sup>, respectively, with 600 x 600 porcelain floor tiles and acrylic PVA painted walls.

Constructed on a 600 x 200 strip concrete foundation, the building features 400 x 200 concrete block walls with a 1:4 mortar mix and plaster finish internally and externally. The roofing consists of steel trusses with a 5-degree slope and 26-gauge IBR sheets, complemented by a stormwater drainage system per the engineer's specifications. The ceilings throughout the building are suspended modular ceilings, ensuring a professional and clean finish.

The facility is equipped with enhanced internet connectivity through collaboration with MAREN, supporting subsidised WIFI access and digital infrastructure conducive to the Open and Distance e-Learning (ODEL) initiative. Safety and accessibility are key considerations, with design elements meeting safety standards for student accommodation and providing gender-sensitive amenities.

#### **2.4 Project Cost, Duration and Estimated Number of Employees**

The project costs are estimated to be MK2,100,000,000 and the expected construction duration is 12 months. The construction works will require not less than 80 people, with the roles depicted in Table 2-1.

**Table 2-1: Estimated construction workforce**

<b>Role</b>	<b>Number of People</b>	<b>Responsibility</b>
Project Management	5 - 6	Includes Project Manager, Site Engineer, Site Supervisors, and Health and Safety Officer. Responsible for overall project coordination, technical oversight, daily supervision, and ensuring safety protocols.
Skilled Labour	33-51	Includes Masons, Carpenters, Electricians, Plumbers, Painters, Tilers, and Roofers. Responsible for building walls, woodwork, electrical and plumbing installations, painting, tile laying, and roofing tasks.
Semi-Skilled Labour	33-51	Includes Assistant Masons, Assistant Carpenters, Assistant Electricians, Assistant Plumbers, Assistant Painters, Assistant Tilers, and Assistant Roofers. Responsible for assisting skilled workers in their tasks.
Unskilled Labour	22-28	Includes General Labourers and Cleaners. Responsible for various unskilled tasks such as carrying materials, cleaning, and assisting skilled workers.

Specialised Personnel	3 - 5	Includes Surveyors, Geotechnical Engineers, and Quality Control Inspectors. Responsible for land and building surveys, soil testing, geotechnical analysis, and ensuring quality standards are met.
Support Staff	6 - 12	Includes Security Personnel, Administrative Staff, and Drivers/Operators. Responsible for site security, administrative tasks, documentation, and operating construction vehicles and machinery.

Note: at least 70% of the workforce will be sourced from the surrounding communities and hence they will come from their residential houses. For the migrant workers, accommodation will be provided near the project site through rented houses which conforms to IFC worker's accommodation processes and standards.

## 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
Cement	2500 bags	Used for concrete foundations, mortar for brickwork, plastering, and screed flooring	Supplier from Lilongwe City	Truck
Sand	150 cubic meters	Used in concrete mix, mortar mix, and plastering	Licensed Local Supplier	Truck
Gravel	100 cubic meters	Used in concrete mix for foundations and floor slabs	Local supplier with permit	Truck
Concrete Blocks	8000 blocks	Used for constructing walls and partitions	Local supplier within Lilongwe	Truck
Steel Reinforcement	10 tonnes	Used for reinforcing concrete foundations, columns, and slabs	Local supplier within Lilongwe	Truck
Roofing Sheets (IBR)	1500 square meters	Used for roofing the entire building	Local supplier within Lilongwe	Truck
Steel Trusses	50 trusses	Used for supporting the roofing sheets	Local supplier	
Tiles (600 x 600 mm)	2000 square meters	Used for flooring in offices, corridors, and specific rooms	Local suppliers and imported ensuring compliance with Malawian standards and regulations	Truck
Ceramic Wall Tiles	500 square meters	Used for walls in wet areas such as toilets and HR room	Local supplier and imported ensuring compliance with	Truck

<b>Material</b>	<b>Estimated Qty</b>	<b>Usage</b>	<b>Source of Material</b>	<b>Mode of Transportation</b>
			Malawian standards and regulations	
Paint (Acrylic PVA)	2000 litres	Used for painting internal and external walls	Local supplier within Lilongwe	Road truck
Electrical Cables	5 km	Used for wiring the building for electrical installations	Local supplier within Lilongwe	Road truck
Plumbing Pipes (PVC)	2 km	Used for plumbing installations including water supply and drainage	Local supplier within Lilongwe	Road truck
Doors (Wooden/Metal)	50 units	Used for providing access to various rooms	Local supplier within Malawi	Road truck
Windows (Aluminium)	80 units	Used for natural lighting and ventilation in various rooms	Local supplier suppliers and imported ensure compliance with Malawian standards and regulations	Road truck
Glass Panes	500 square meters	Used for windows and curtain partitions	Local suppliers and imported ensure compliance with Malawian standards and regulations	Road truck
Suspended Ceiling Panels	1500 square meters	Used for ceiling finishes throughout the building	Local suppliers and imported ensure compliance with Malawian standards and regulations	Road truck
Termite Treatment	100 litres	Used for foundation treatment to prevent termite infestation	Local supplier	Road truck
Concrete for Foundation	200 cubic meters	Used for constructing the strip foundation	Local supplier	Road truck
PVC Flooring	200 square meters	Used for specific areas requiring resilient flooring	Local suppliers and imported ensure compliance with Malawian standards and regulations	Road truck
Waterproofing Material	300 square meters	Used for waterproofing foundations and wet areas	Local supplier	Road truck
Miscellaneous Fixtures	Various	Includes screws, nails, hinges, and other small materials used in construction	Local supplier	Road truck
Water	50000 litres	Used for concrete mixing, curing, and general construction needs	Nearest river	Water bowser

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

## 2.6 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.

*Table 2-3: Estimated waste types and quantities*

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

### Chapter Three: Legal Framework

This chapter reviews the legal framework relevant to the proposed project, highlighting its implications. It references pertinent Malawian legislation and the World Bank Environmental and Social Framework. Additionally, the chapter outlines all regulatory licenses and approvals required to ensure the project adheres to sound environmental management practices and complies with existing legislation.

#### 3.1 Relevant Malawi Legislative Framework

Table 3-1 provides a brief description of the key legislative requirements that the project must adhere to during the construction and operation phases.

**Table 3-1: Key National Legislative Requirements**

Legislation	Description	Relevance to project Activities
The Constitution of Malawi (1994)	The Constitution of the Republic of Malawi (1995) is the supreme law of the land. Section 13 of the policy sets out a broad framework for sustainable environmental and social management at various levels in Malawi. Section 13 (d) of the Constitution provides that the state shall actively promote the welfare and development of the people of Malawi by progressively adopting and implementing policies and legislation aimed at managing the environment responsibly.	The Constitution of Malawi (1994)
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 ESIA's, the objective is to regularly review and administer the guidelines for ESIA's, 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 Namitete Technical College has prepared this Environmental and Social Management Plan which identifies project risks and has put in place mitigation measures as per the requirements of the Act.
Forestry Act (1997)	The objectives of the Forestry Act include the protection of trees and resources in forest reserves, the conservation and enhancement of biodiversity, and the protection and management of trees on customary land. Additionally, the Act aims to promote the sustainable	The Forestry Act addresses the management of indigenous forests on customary land, private land, forest



Legislation	Description	Relevance to project Activities
	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 Namitete 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 Namitete 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 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	Namitete Technical College is on private land that belong to the catholic church who own the college. In addition, the proposed construction activities will be developed on this private land.

<b>Legislation</b>	<b>Description</b>	<b>Relevance to project Activities</b>
	registered as private land under the Registered Land Act.	
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 with this act, the proposed construction project at Namitete Technical College will ensure that the contractor develops and enforces a Health and Safety Plan, and that workers are provided with appropriate PPE to ensure the workers are comfortable and safe from occupational health and safety hazards. Working conditions on site will be monitored to ensure compliance.
The Employment Act (2000)	The Employment Act (2000) prohibits forced labour and discrimination based on race, colour, sex, language, religion, political or other opinion, nationality, ethnic or social origin, disability, property, birth, marital or other status or family responsibilities. It requires equal pay and establishes remedies for infringement of fundamental rights. It also sets limits on child labour and regulates contracts, working hours, weekly rest and leave, wages, and discipline and dismissal.	For the proposed construction project at Namitete 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,	The policy on the proposed project implies that the contractor will be required to provide job opportunities to people with disabilities to ensure that they are also economically empowered.

Legislation	Description	Relevance to project Activities
	mainly due to discrimination, inadequate education, job experience, and confidence.	
Disability Act (2013)	This act is a significant step towards ensuring equal opportunities and rights for persons with disabilities. Promoting policies and legislation that aim to equalize opportunities, protect rights, and fully integrate persons with disabilities into all aspects of life recognizes their inherent dignity and well-being. Sections 9 and 13 of the acts are particularly commendable, as they prohibit discrimination in accessing premises, provision of services, and employment opportunities based on disability.	The project will not tolerate any form of discrimination against persons with disabilities and will promote equal employment opportunities for persons with disabilities by implementing LMP and Code of Conduct
Malawi Bureau of Standards Act (2012)	The Act establishes the Malawi Bureau of Standards (MBS) 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.	All Project-related activities will be conducted in compliance with the above 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
Gender Equality Act, 2013	The Act in Chapter 25:06 promotes gender equality and equal integration, influences empowerment, dignity, and opportunities for men and women in all functions of society, prohibits and provides redress for sex discrimination, harmful practices, and sexual harassment, provides for public awareness on the promotion of gender equality and connected matters. Section 6(1) of the Act states that a person who commits an act of harassment if he or she engages in any form of unwanted verbal, non-verbal, or physical conduct of a sexual nature in the circumstances would have anticipated that the other person would be offended, humiliated or intimidated, and (2) a person who sexually harasses another in terms of the preceding subsection is liable to a fine and imprisonment specified under subsection (2).	The proposed construction project at Namitete 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 provide a conducive environment without sexual harassment and any other types of gender discrimination.
HIV and AIDS (Prevention and	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	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

<b>Legislation</b>	<b>Description</b>	<b>Relevance to project Activities</b>
Management) Act, 2018	workplace, highlighting issues like absenteeism, low productivity, and discrimination.	works and the communities around the schools will constantly be sensitized to 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 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. The development of learners' knowledge, understanding and skills needed for Malawians to compete successfully in the modern and ever-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 thoroughly cooked food, and avoiding handshakes and close contact. Employers must form a team to implement these guidelines and disseminate them to all employees. Employees must cooperate and report non-compliance.	The Ministry of Labour will inspect workplaces for adherence. The developer of the two proposed projects must ensure COVID-19 guidelines are implemented and followed by both employers and employees.
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 Namitete 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 eighteen years of age	The ESMP has articulated how the project will guard against the

Legislation	Description	Relevance to project Activities
	(punishable with life imprisonment). Section 137 criminalises indecent assaults on females	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 set out the requirements for Borrowers to identify and assess environmental and social risks and impacts associated with projects supported by the Bank through Investment Project Financing. The Bank believes that applying these standards, by focusing on identifying and managing 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	<p>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.</p> <p><i>The proposed construction project at Namitete Technical College has identified E&amp;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 the following plans including, Labour Management Plan, Waste Management Plan, Health and Safety Plan, Traffic Management Plan and others which provide structured approaches to</i></p>

Environmental & Social Standards	Main requirements and conducted activities to meet them
	<i>addressing specific environmental and social issues during the proposed project implementation.</i>
ESS 2 – Labour and Working Conditions	<p>ESS2 recognizes the importance of employment creation and income generation in the pursuit of poverty reduction and inclusive economic growth. Borrowers can promote sound worker-management relationships and enhance the development benefits of a project by treating workers in the project fairly and providing safe and healthy working conditions. ESS2 applies to project workers, including full-time, part-time, temporary, seasonal, and migrant workers.</p> <p><i>The construction project at Namitete Technical College shall use the Labour Management Plan for the SAVE Project that guides implementation of its activities and this will apply to this sub-project. This ESMP has also identified impacts related to labour and working conditions and their mitigation measures are also provided. In addition, this ESMP has included LMP 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</i></p>
ESS 3 – Recourse and Efficiency, Pollution Prevention and Management	<p>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 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.</p> <p><i>The construction project at Namitete Technical College will ensure green designs for the project that will enforce the 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.</i></p>

Environmental & Social Standards	Main requirements and conducted activities to meet them
ESS 4 – Community Health and Safety	<p>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.</p> <p><i>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 have provided mitigation measures to ensure community safety. This ESMP has included a Traffic Management Plan and Emergency Preparedness and Response Plan to protect the safety of the community and risks to human life, property and the environment.</i></p>
ESS 10 – Stakeholder Engagement and Information Disclosure	<p>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.</p> <p><i>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).</i></p>

## **Chapter Four: Environmental and Social Setting**

This chapter provides a concise description of the main existing physical, biological, socio-economic, and service structure conditions and characteristics of the proposed project area and within the project area of impact.

### **4.1 Physical Environment**

#### **4.1.1 Topography of the Project Area**

Namitete Technical College lies 1135 metres above sea level, and the land is generally flat.

#### **4.1.2 Geology**

The project site is part of Lilongwe's geology, 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 (Lilongwe District SEP 2017).

#### **4.1.3 Soils**

During the site visit, it was observed that the project area has clay, loamy reddish-brown soils. The soil is less exposed to erosion risk due to its deep sublayer, encouraging runoff infiltration. Erosion surfaces are not commonly seen in the project area.

#### **4.1.4 Weather and Climate Conditions**

According to weather-and-climate.com, the monthly mean high temperatures range from 25°C in July to about 31°C in October and November. The project site, just like the whole Lilongwe district, experiences low temperatures in May, June, and July and hot temperatures in October and November. The mean low temperatures range from 13°C in July to 20°C November and December. The monthly rainfall ranges from about 0mm to 286mm, with most rainfall falling from December to March. Lilongwe has dry periods in 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 precipitation, and the annual precipitation is 1010 mm. The cool south-easterly winds sometimes bring light rains in April and early May.

##### **4.1.4.4 Flora**

The proposed sites are within the college campus but have not yet been developed. During the growing seasons, the college staff temporarily used the site for crop farming. The type of flora observed on the proposed site includes two (2) trees: *Gmelina arborea* (Gmelina) and *Jacaranda mimosifolia* (Jacaranda) which are allocated at the boundary of the plot, as such they will be preserved



#### ***4.1.4.5 Fauna***

The project site is within the college campus, which has an already built environment save for some undeveloped areas. During the site survey, it was observed that due to the loss of vegetative cover of the campus and the surrounding areas, the main notable fauna are various types of insects.

## **4.2. Socio Economic Environment**

### **4.2.1 Population**

The estimated population of Namitete Technical College is 500 people, including staff and students of which 200 are female. The college is found in Msangwa village and is expected to interact with the local people who may come to the project sites for employment or sell their items to construction workers. According to the GVH Msangwa the project impact area has an estimated population of over 10,000 people (female population is slightly higher according to the local chief) and has about 2,000 households. The population in Msangwa village is said to be increasing because of early marriages and lack of adherence to family planning interventions.

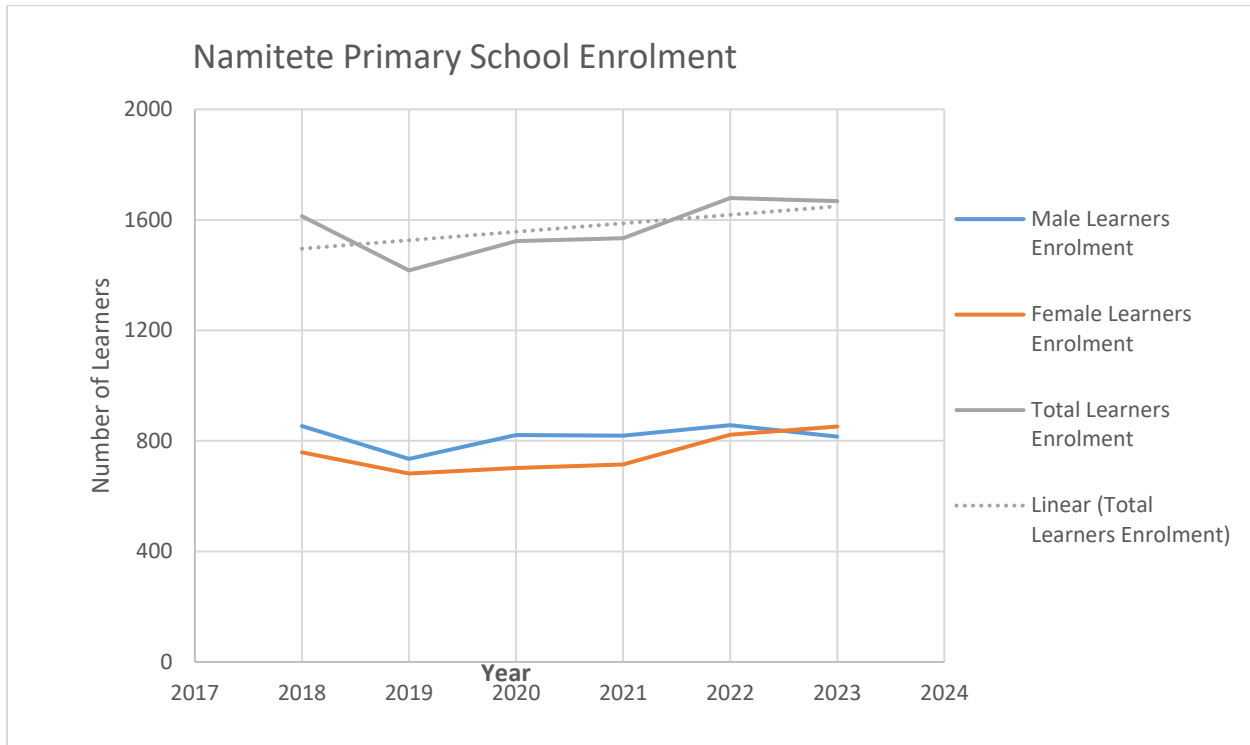
### **4.2.2 Health**

The two major health facilities that the project site can access are St Gabriel Mission Hospital and Chileka Health Centre at Namitete Trading Centre. St Gabriel Mission Hospital is the closest and most convenient health facility to the project site and surrounding areas. The catchment population of the hospital is 208,000 people, and it is a referral facility for eight (8) surrounding health centres. The facility has 290 beds and receives more than 50 outpatients a day. The most prevalent diseases in the area include Malaria, Pneumonia for children under five, diarrhoea, Upper Respiratory Tract Infection (URTI) and non-communicable diseases like hypertension and diabetes. According to the hospital patron at St Gabriel Mission Hospital, the main challenge that the facility experiences is the shortage of medical supplies; as such, the construction project will be required to pay for services offered to the construction workers. The proposed project poses 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.

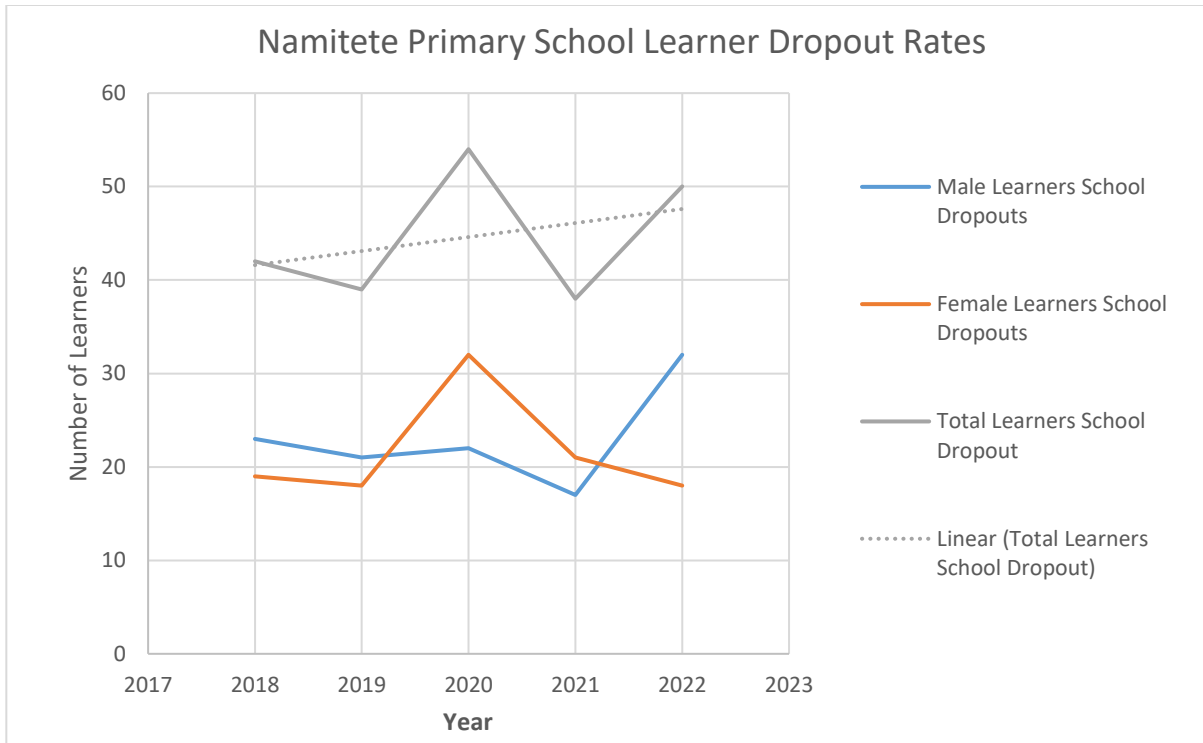
### **4.2.3 Education**

The main education institutions in the project area of impact include Namitete Primary School and Namitete Technical College (see map in Annex 1 – A1.2). Reports indicate that literacy levels are high in Lilongwe District and that a large population of residents still has not acquired some academic qualification (Lilongwe District Council, 2016). This observation for the district can also apply to the Msangwa Village community as supported by GVH Msangwa during consultations. Consultation with the teaching staff at Namitete Primary School reported that enrolment has slowly increased from 2019 to 2023 (Figure 4-1). Currently, the school has more female than male learners, which was not the case before. The number of learners dropping out of school has been fluctuating over the past 5 years and according to the school's headteacher, the main reasons for

school dropouts include lack of basic needs like food due to poverty (Figure 4-2). The learners predominantly come from the GVH Msangwa area; hence, most learners pass by the college without going to the school.



**Figure 4-1: School Enrolment at Namitete Primary School**



**Figure 4-2: School Dropout at Namitete Primary School**

**4.2.4 Water Supply**

Central Region Water Board is the responsible agency for the supply of potable water in the project area. However, no water board pipes are installed at the project location, so the main water source includes boreholes. The college has a borehole with a pump that is located about 400 metres from the campus and can pump water into a 10,000-litre tank located at the campus. The existing tank has developed leaks and hence cannot hold more water as per capacity, leading to water supply deficiencies during power outages. The pipe system at the institution is archaic; hence, pipes are bursting frequently. Spillage of construction materials like fuel, oil, or solvents can seep into the soil, contaminating groundwater. Consumption of contaminated and long-term exposure to chemical contaminants can cause chronic health issues and waterborne diseases such as diarrhoea and cholera.

**4.2.5 Power Supply**

Electricity Supply Corporation of Malawi (ESCOM) supplies electricity to the project area. According to a brief survey conducted during public consultations, households and institutions in the project impact area use electricity for lighting. Firewood and charcoal are still the dominant cooking energy sources within these institutions and surrounding villages. Namitete Technical College uses electricity for lighting and to power devices and appliances in the offices, classrooms and hostels. The main challenge associated with power supply is the lack of power supply backup like solar power or a genset, which means that during a power outage, some activities are affected.

#### **4.2.6 Road and Transport**

The proposed project area can easily be accessed from the M12 road, and a secondary tarmac road 4.5 leads to the project site. The common means of transport in the project area are private cars, motorcycles, bicycles, and minibuses.

#### **4.2.7 Communication**

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

#### **4.2.8 Security**

The nearest Police unit is the Namitete Police Unit which is 4.8 km from the project site. Crime at Namitete Technical College and its impact area is rated as low, with petty theft being the common type of crime.

#### **4.2.9 Waste Management**

Most households have refuse pits, and a few have open dumps or heaps at a designated site in their compounds. The waste at the college is disposed of in a rubbish pit that has been dug on campus, and the main types of waste disposed of here include food waste, papers, plastics and glass materials. Hazardous waste and electronic waste will be disposed in liaison with MEPA and Lilongwe District Council at designated dumping sites. Liquid waste is managed through septic tanks built strategically around campus areas.

## 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	-	-	-	-
<b>Key</b>				
<i>No Substantial Interaction</i>	-			
<i>Possible Interaction</i>	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! Not a valid bookmark self-reference..**

**Table 5-2: Impact Assessment Criteria and Scoring System**

CRITERIA	SCORE 1	SCORE 2	SCORE 3	SCORE 4	SCORE 5
<b>Impact Magnitude (M)</b> 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
<b>Impact Extent (E)</b> 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
<b>Impact Reversibility (R)</b> 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
<b>Impact Duration (D)</b> 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
<b>Probability of Occurrence (P)</b> The likelihood of an impact occurring in the absence of pertinent environmental management measures or mitigation	Improbable	Low Probability	Probable	Highly Probability	Definite
<b>Significance (S)</b> is determined by combining the above criteria in the following formula:	$[S = (E + D + R + M) \times P]$ $Significance = (Extent + Duration + Reversibility + Magnitude) \times Probability$				
<b>IMPACT SIGNIFICANCE RATING</b>					
<b>Total Score</b>	<b>4 to 15</b>	<b>16 to 30</b>	<b>31 to 60</b>	<b>61 to 80</b>	<b>81 to 100</b>
<b>Environmental Significance Rating (Negative (-))</b>	<b>Very low</b>	<b>Low</b>	<b>Moderate</b>	<b>Substantial</b>	<b>High</b>
<b>Environmental Significance Rating (Positive (+))</b>	<b>Very low</b>	<b>Low</b>	<b>Moderate</b>	<b>High</b>	<b>Very High</b>

### 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	Significance
			(Before Mitigation)	(After Mitigation)
<b>Planning and Design Phase impacts and their ratings</b>				
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 (+)
<b>Construction phase impacts and their ratings</b>				
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	substantial	Moderate
Social	Availability of market for construction materials and services, and other trades	Positive	Moderate	High (+)
	Creation of employment opportunities	Positive	Moderate	High (+)
	Artisanal skill development	Positive	Moderate	High (+)
	Disruption on provision of education services	Negative	Moderate	Low

Aspect	Impact	Nature	Significance	Significance
			(Before Mitigation)	(After Mitigation)
	Community, health and safety risk	Negative	Moderate	Low
	Increased risk to diseases, STIs and HIV and AIDS	Negative	moderate	Moderate
	Conflicts over use of local water resources	Negative	Moderate	Low
	Health and safety of site personnel	Negative	substantial	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	moderate	Low
	Disruption of Play Area	Negative	substantial	Low
<b>Operation phase impacts and their ratings</b>				
<b>Waste</b>	Poor waste disposal practices	Negative	Moderate	Low
<b>Visual</b>	Improved outlook of the institutions	Positive	High	Very High (+)
<b>Social</b>	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 construction and operation.

### **5.4.1 Planning and Design Phase Positive Impacts**

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

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

During the planning phase, the developer will employ people to undertake various studies for the planning of the project, develop detailed project designs and carry out an environmental and social assessment of the proposed site. The impact is short term as it will last for a less than 180 days during the planning phase but will also involve at least twenty people. Hence the impact is of low significance.

#### ***5.4.1.2 Improved project compliance to national environmental and social legislations***

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

### **5.4.2 Construction phase positive impacts**

#### **5.4.2.1 Creation of local employment opportunities**

The construction phase will provide employment to people in the Project including men, women, youth and the vulnerable from the surrounding communities. By employing the vulnerable during construction, this Project will be of vital importance not only to mitigate the adverse impacts related to the Project but also enhance employment inequalities. Some of the skill categories that will be required by the Project will include surveying, plumbing, carpentry, bricklaying, steel fixing, plant operation, civil engineering and driving.

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

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

#### 5.4.2.3 Skill transfer

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

### 5.4.3 Operation Phase Positive Impacts

#### **5.4.1.1 Enhanced Skills Development**

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

#### **5.4.1.2 Improved Educational Facilities**

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

#### **5.4.1.3 Infrastructure Improvement**

The construction of the workshop will include improvements to existing infrastructure, such as access roads and utilities, benefiting the wider community. Enhanced infrastructure will provide long-term benefits, supporting other development initiatives in the area.

### 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 Disruption of Play Area**

An access road separates the proposed construction site from the Namitete Primary School's football pitch (See Annex 1; A1.2 and A1.3). This can lead to safety concerns such as accidents due to overspeeding of construction vehicles.

#### **5.4.4.3 Increased Risks of GBV, SEA, and Defilement**

The mobilisation of predominantly male workers could heighten the risk of GBV, SEA, and exploitation of female learners, particularly those from vulnerable backgrounds. Malawi has a

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

- mandatory training for workers on gender sensitivity and GBV prevention.
- Enhance the monitoring of compliance with codes of conduct by conducting random audits and providing support for survivors through counselling and legal aid
- Establish a gender-sensitive grievance redress mechanism (GRM) to address GBV cases ensuring it is anonymous to and accessible to women workers and community members.
- Design safe zones within and around the construction sites with adequate lighting and security personnel particularly for areas near female dormitories.
- Collaborate with local authorities and NGOs to provide GBV awareness campaigns and support services, including medical, legal and psycho-social assistance.
- Introduce a whistle-blower program to empower workers and community members to report cases of GBV without fear of retaliation
- Regularly monitor GBV risk and incidents by establishing a GBV committee that includes female representatives from workers and the community

#### ***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 its within 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 used by a primary school, the construction activities are expected to exacerbate traffic congestion. Increased vehicular traffic from the construction materials and equipment transportation will further congest the construction site's access road. This congestion poses a higher risk of road accidents involving vehicles and pedestrians, including vulnerable primary school children.

#### ***5.4.4.5 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 Msangwa village (see map in Annex 1; A1.2), 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.

#### ***5.4.4.6 Temporary Air Quality Deterioration***

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

#### ***5.4.4.7 Elevated Noise Levels from Machinery and Construction Activities***

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

#### ***5.4.4.8 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.

#### ***5.4.4.9 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, lacking 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.

#### ***5.4.4.10 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.

#### ***5.4.4.11 Generation of Solid Wastes, Spills, and Effluent***

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

#### ***5.4.4.12 Increase in Electricity Consumption***

Electricity Supply Corporation of Malawi supplies electricity to the project area. Namitete Technical College uses electricity for lighting, power devices, and appliances in offices, classrooms and hostels. The main challenge associated with power supply is the lack of power supply backup like solar power or a genset, which means that during a power outage, some activities are affected. 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.

#### ***5.4.4.13 Increase in Water Consumption***

The main water source at the college is a borehole with a pump about 400 metres from the campus. The pump has the capacity to pump water into a 10,000-litre tank located at the campus. The existing tank has leaks and hence cannot hold more water as per capacity, leading to water supply deficiencies during power outages. The pipe system at the institution is archaic; hence, pipes are bursting frequently. 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 quantities of water for the foundation, walls, and other structures. This heightened water demand will strain the already existing water challenge.

#### ***5.4.4.14 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 soils susceptibility to being eroded. Construction activities also expose the soils through excavation, grading and levelling activities hence the topsoils are easily eroded. The project will create impermeable surfaces like sidewalks and pavements reducing water infiltration into the soil 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.

#### ***5.4.4.15 Degradation of Vegetation and Habitat Loss impacting local flora and fauna***

During project site clearing, shrubs will be removed. The two (2) trees, jacaranda and Gmelina, will be preserved as they are located at the boundary of the proposed site.

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

The construction activities may lead to soil contamination through the release of hazardous substances or improper waste disposal practices. Leakage or spills associated with 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 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.

#### ***5.4.4.17 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.

#### **5.4.4.18 Loss of Farm Land**

The earmarked land for the construction was previously being used by staff for cultivation.

#### **5.4.4.19 Risk of Theft**

Availability of construction materials at the site will attract thieves.

#### **5.4.4.20 Disturbance of Classes**

Noise generated from the construction activities and vehicles bringing construction materials to the site may disturb classes.

#### **5.4.5 Operation phase Negative Impacts**

##### **5.4.5.1 Health and safety risks due to fire hazards**

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

##### **5.4.5.2 Increased generation of solid waste**

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

##### **5.4.5.3 Increased risk to STIs, HIV and AIDS**

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

##### **5.4.5.4 Increased demand for power**

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

##### **5.4.5.5 Increased demand for water**

Traditionally modern buildings have high demands and usage of resources mainly electricity and water. Water consumption is related to personal use and facility requirements for housekeeping, laundry, cooking, and grounds maintenance.

##### **5.4.5.6 Risk of Theft and Vandalism**

The newly constructed building and equipment therein at the institution will attract thieves and vandalism.

#### **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 and 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
<b>5.4.1</b>	<b>Planning and Design Phase Positive Impacts</b>							
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 phase	5,000,000	Percent of Malawian professionals hired	Once after recruitment of consultants	Namtete Technical College (NTC); SAVE PIU	Ministry of Education (MoE)
		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 their concerns are considered in the Project's documents.	Throughout the planning and design phase	4,000,000	Number of consultation meetings conducted	Once before acceptance of design reports from consultants	Namtete Technical College (NTC); SAVE PIU	MoE
		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 Authority, and Lilongwe District Council.			Availability of approvals			
<b>5.4.2</b>	<b>Construction phase positive impacts</b>							

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
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	1,500,000.00	Percentage of youth and women in workforce	Quarterly during the construction phase	Contractor	NTC; 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			Percentage of workers paid above minimum wages			
		Ensure salaries and wages to be paid to the local employees are 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	250,000.00		Quarterly during the construction phase	Contractor	
		Where practically possible ensure that locally produced materials are given priority over imported materials; and						
		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	250,000.00	Percentage of locals in workforce	Quarterly during the	Contractor	NTC; SAVE PIU

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Make deliberate effort to pair skilled and unskilled workers during various construction assignments; and Formalise on-the-job trainings for local unskilled labour that also includes learning targets and performance monitoring.	construction phase		Percentage of unskilled workers being trained	construction phase		(Environmental and Social Experts)
<b>5.4.3</b>	<b>Operation Phase Positive Impacts</b>							
5.4.3.1	Enhanced Skills Development	Implement targeted recruitment strategies to ensure the participation of women and disadvantaged groups.	Continuously during operation phase	Included in operational budget	Number of women and disadvantaged students enrolled	Semi-annually	Namitete Technical College Management	TEVETA
		Develop gender-sensitive training modules and curricula that address the specific needs and challenges faced by women in the plumbing and electrical installation sectors.			Satisfaction levels from student surveys on training environment			
		Ensure that the workshop environment is safe and welcoming for all students, with appropriate facilities such as separate restrooms and changing areas.	During design phase	Included in design budget	Availability of facilities in designs	Before construction phase	Design Consultant	Namitete Technical College Management; SAVE PIU
		Develop partnerships with local businesses and industries to offer internships, apprenticeships, and job placement services for graduates.	Continuously during operation phase	Included in operational budget	Number of partnerships with local businesses and number of students placed in internships/jobs	Semi-annually	Namitete 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	Improved Educational Facilities	Ensure the workshop is equipped with the latest tools and technology used in the plumbing and electrical installation industries.	Continuously during operation phase	Included in operational budget	Number and condition of new equipment installed	Annually	Namitete Technical College Management	TEVETA
		Regularly update and maintain equipment to keep pace with industry advancements.			Number of professional development workshops			
		Provide ongoing training for instructors to ensure they are proficient in using new equipment and teaching the latest industry techniques, in alignment with the ESF and EHS guidelines.			Number of feedback reports received and actions taken.			
		Implement a system for regular feedback from students and instructors to identify areas for improvement in the facilities and training programmes.						
5.4.3.3	Infrastructure Improvement	Use environmentally friendly construction materials and methods to minimise the ecological footprint of the project in compliance with ESS3 on Resource Efficiency and Pollution Prevention.	Construction Phase	Included in Construction Material Procurement Budget	Percentage of environmentally friendly materials used and energy savings achieved	Before construction	Design consultant	Namitete Technical College Management; SAVE PIU
		Implement energy-efficient designs, such as solar panels and natural lighting, to reduce long-term operational costs and environmental impact.	Design Phase	Included in design budget	Improvements in water supply, sanitation, and electrical systems			
		Upgrade existing utilities, such as water supply, sanitation, and electrical systems, to support the new facilities and benefit the wider community in line with ESS3 on sustainable resource management.	Design Phase		Inclusion in facility designs			
		Ensure provision for safe access and utilisation of facility by people with disabilities, aligning with ESS10 on	Design Phase					

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Stakeholder Engagement and ESS4 on Community Health and Safety.						
5.4.3.4	Creation of Job Opportunities	Inform local communities of employment opportunities and prioritize their employment.	Before construction phase starts	100,000	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 conditions as per the project's Labour Management Plan.	Ongoing during construction phase	MK0	Compliance with labour regulations	Monthly		
		Pay the same rates for workers working on similar tasks regardless of gender and origin.	Ongoing during construction phase	MK0	Pay equity records	Monthly		
		Have workers sign a code of conduct. The code of guide is provided in Annex 5.	Before employment starts	MK0	Number of signed codes of conduct	Before employment starts		
		Sensitize workers to a full range of risks related to occupational health and safety, labour rights, public health, community safety, sexual harassment, and GBV.	During induction and ongoing	50,000	Number of sensitization sessions; worker awareness levels	Monthly		
		Ensure that 30% of the workforce are women.	Ongoing during construction phase	MK0	Workforce gender ratio	Monthly		
5.4.3.5	Environmental Sustainability Benefits	Develop a contractors ESMP that will include relevant sub-plans.	Before construction phase starts	5,000,000	Approved C-ESMP	Before construction begins	Contractor	Supervising Consultant; PIU E&S Expert
		Solicit views of the public and stakeholders through consultations to ensure that their concerns are considered in the project documents.	Before construction phase starts	75,000	Number of consultations held; stakeholder feedback incorporated	Before construction begins	Project Management Team	

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Undertake community liaison meetings to notify the community of the commencement date, inform them of the grievance mechanism, and labour policy.	Before construction phase starts	50,000	Number of liaison meetings; community awareness level	Before construction begins	Project Management Team	
		Obtain relevant approvals and certificates from authorities, including the Malawi Environment Protection Authority and Lilongwe District Council.	Before construction phase starts	2,000,000	Number of approvals and certificates obtained	Before construction begins		
5.4.3.6	Increased Enrolment	Enrol both male and female students, Carry out regular maintenance of the infrastructure	During operational phase	700,000	Ratio of male to female students enrolled	During operational phase	Project Management Team	
<b>5.4.4</b>	<b>Construction Phase Negative Impacts</b>							
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	200,000	Number of designated storage areas	Monthly	Contractor	Supervising Consultant
		Use temporary structures or secure outdoor spaces for storage to avoid using indoor educational facilities.	Before construction phase starts	100,000	Number of temporary structures used			
		Schedule the most disruptive construction activities during school holidays, weekends, or after school hours to minimise impact on lessons.	During construction phase	50,000	Compliance with schedule			
		Implement a phased construction approach to limit the extent of disruption at any given time.	During construction phase	100,000	Progress of phased construction			
		Use noise barriers or acoustic enclosures around high-noise activities to reduce the impact on nearby classrooms.	During construction phase	300,000	Noise levels in decibels			

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Implement dust suppression measures such as water spraying and covering materials to minimise dust generation.	During construction phase	200,000	Air quality measurements			
		Establish regular communication channels between the construction team and the college administration to coordinate activities and address concerns promptly.	Ongoing	50,000	Number of meetings held			College Administration
		Inform the college community about the construction schedule, potential disruptions, and mitigation measures in place.	Before construction phase starts	50,000	Information dissemination frequency			
5.4.4.2	Disruption of Play Area	Schedule construction activities to minimise the impact on school hours, ideally planning major disruptive activities during school holidays or off-peak times.	During construction phase	50,000	Compliance with schedule	Monthly	Contractor	Supervising Consultant
		Conduct sensitization among the learners and teachers and surrounding communities	During construction phase	100,000	Progress of phased construction			
		Implementation of traffic management plan	Before and during construction phase starts	50,000	Number of interventions implemented			
		Engage with the school administration, parents, and the local community to keep them informed about the construction plans, timelines, and measures taken to ensure safety.	Ongoing	50,000	Number of community engagement sessions			School Administration
		Establish a grievance mechanism for the school and community to report any issues or concerns related to the construction activities.	Before construction phase starts	50,000	Number of grievances reported and addressed	Before construction phase starts		
5.4.4.3	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 construction phase starts	50,000	Existence of induction program; number of	Before construction begins	Contractor	Supervising Consultant

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
					signed codes of conduct			
		Ensure a copy of the code of conduct is presented to all construction workers and signed by each of them.	Before construction phase starts	50,000	Number of signed codes of conduct	Before construction begins		
		Implement a GBV management plan as presented in Annex 5.	During construction phase	250,000	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	150,000	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 within the community and schools..	Ongoing during construction phase	50,000	Existence and accessibility of GRM; number of grievances addressed	Weekly		
		Provide regular training on gender sensitivity, GBV, and SEA prevention to all construction workers.	Ongoing	100,000	Number of training sessions conducted; participant feedback	Monthly		
		Ensure prompt investigation and resolution of reported incidents, with appropriate disciplinary actions for perpetrators.	Ongoing	150,000	Number of incidents investigated; resolution time	Monthly		
		Encourage the recruitment of female workers and ensure equal employment opportunities in the construction project.	Ongoing	100,000	Number of female	Monthly		



Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
					workers recruited			
		Provide a safe and supportive work environment for female employees.	Ongoing	100,000	Employee satisfaction surveys; number of reported incidents	Monthly		
5.4.4.4	Increased Community Health and Safety Risks	Develop and implement a Traffic Management Plan using guidance provided in Annex 8.	Before construction starts	5,000,000	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	200,000/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	250,000	Crossings and signage installed	Weekly		
		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	1,000,000	Safety barriers installed	Weekly		
		Hire transporters with valid CoF and appropriately licensed drivers.	Throughout construction	200,000/month	Transporters comply with CoF and licensing	Monthly		
		Ensure construction vehicles observe a 20 km/hr speed limit on the hospital campus.	Throughout construction	150,000	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
5.4.4.5	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	1,500,000	Number of erected signposts	Weekly		
		Set up an anonymous reporting system where incidents of child labour can be reported without fear of retribution.	Before commencement of construction	750,000	Number for uptake systems in place	Weekly		
5.4.4.6	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	150,000	Properly covered loads observed	Weekly		
		Unload powdery materials using drop-height regulation equipment to minimize air contamination in line with ESS3 guidelines.	During material unloading	150,000	Minimal dust observed during unloading	Weekly		
		Regular maintenance of vehicles, avoid old vehicles emitting black smoke	Throughout construction	150,000	Emission levels within acceptable limits	Monthly		

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
5.4.4.7	Increased 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 not exceed 55 dB (A) and keep noise levels for workers below 80 dB (A) in alignment with ESS3 on Pollution Prevention and Control.	Ongoing during construction phase	100,000	Noise level readings; compliance with standards	Monthly		
		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		
5.4.4.8	Increased Occupational Health Risks	Develop and implement an Occupational Health and Safety Plan that aims to avoid, minimize, and mitigate the site-specific risk of workplace accidents, , in line with ESS2 on Labor and Working Conditions.	Before construction phase starts	250,000.00	Existence of OH&S plan; compliance with safety protocols	Quarterly	Contractor	Supervising Consultant; PIU E&S Expert
		Provide OSH orientation training and hazard-specific training.	During induction and ongoing	50,000.00	Number of training sessions; worker awareness levels	Monthly		

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		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 the excavation area to prevent unauthorized access and to alert workers to potential hazards.	During excavation	150,000	Number of barriers and signs; compliance with safety protocols			
		Use secure and stable ladders or scaffolding that meet safety standards for working at height.	During construction	1,000,000	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	1,000,000	PPE availability and usage; compliance with safety standards			
5.4.4.9	Increased risk of Discrimination	Treat employees in compliance with the Malawi Labour Regulations and labour and working conditions as per World Banks ESS 2.	Ongoing during the construction phase	200,000	Number of compliance audits; employee feedback	Monthly	Contractor	Supervising Consultant; PIU E&S Expert
		Implement the project as required by the projects Labour Management Plan.			Existence of Labour Management Plan; compliance audits			

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		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 workforce management activities and results using World Bank templates, government requirements, and international good practice.			Number of reports submitted; compliance with reporting standards			
		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			
5.4.4.10	Infectious Disease Impact (spread of STIs, HIV and AIDS, and Covid-19)	Carry out monthly health education for construction workers in liaison with health personnel using the toolbox talks.	Ongoing; monthly	150,000	Number of health education sessions; worker participation	Monthly	Contractor	SC; PIU E&S Expert
		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
		Sensitize construction workers on Covid-19 prevention including hand washing with soap, use of hand sanitizers, proper use of face masks, and workspace disinfection among others.	Ongoing	50,000	Number of sensitization sessions; worker compliance	Before employment starts		SC; PIU E&S Expert
		Distribute information, education, and communication (IEC) materials on Covid-	Ongoing	250,000	Number of IEC materials	Monthly		SC; PIU E&S Expert

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		19, HIV and AIDS prevention, and cholera.			distributed; worker awareness			
		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
5.4.4.1 1	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	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 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.	Before construction phase starts	50,000	Number of waste disposal sites identified; compliance with disposal protocols	Weekly		SC; PIU E&S Expert
		Obtain permits to handle, store, transport, and dispose of hazardous waste from the Environmental Authority in advance of construction.	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
		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	50,000	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, 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.	During construction phase	100,000	Availability and usage of spill-control kits; number of spill incidents	Monthly		SC; PIU E&S Expert
5.4.4.1 2	Increased energy Consumption	Promote energy-efficient practices.	Ongoing during the construction phase	10,000,000	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.			Number of workers trained			
		Train workers on energy-saving practices and the importance of reducing energy consumption.			500,000			
		Use of fuel-efficient vehicles and machinery.			5,000,000			
		Optimise logistics to minimise transportation distances and fuel consumption.						
5.4.4.1 3		Implement water-saving measures.		300,000	Amount of water used	Monthly	Contractor	Supervising Consultant;

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
	Increased in Water Consumption	Source non-potable water from water bodies within a 2 km radius for construction purposes, ensuring it does not affect hospital water supplies. Reuse water where possible e.g. use greywater for dust suppression and sanitation purposes Monitor and minimize water wastage.	Ongoing during construction phase		Amount of non-potable water used Amount of water reused Water usage records			PIU E&S Expert
5.4.4.14	Increased risk of Soil Erosion and Sedimentation	Protect all areas susceptible to erosion by construction of storm water drains and redirecting storm water to reduce run-off water on stripped soils; Avoid deposits of loose spoils near waterways; Segregate topsoil for reuse during restoration of 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.	Throughout the construction phase	750,000		Throughout the construction phase	Contractor	SC; PIU E&S Expert
5.4.4.15	Increased risk of Degradation of Vegetation	Confining land clearing to worksite; Planting of trees will be done with guidance from the District Forestry Office, which will educate learners and the community on tree planting	During construction phase	250,000	No. of trees replaced per site	Throughout the construction phase	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 Habitat Loss	and management, and choice of tree species Direct replacement of trees and vegetation lost on site and other affected areas. A good principle would be to replace every tree lost with at least five trees. The trees should be planted in sites where there will not be any future extensions or construction; and						
5.4.4.1 6	Risk of Water Pollution	. 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 response in case of water contamination incidents. Proper disposal of waste in designated dumping areas and provision of adequate and appropriate sanitary facilities.	Annually	200,000		Annually	Contractor	SC; PIU E&S Expert
5.4.4.1 7	Increased Traffic Disruptions	The proposed development must provide adequate onsite parking, loading facilities, and manoeuvring space for the construction vehicles	Throughout construction phase	200,000	Availability of parking space	Annually	Contractor	SC; PIU E&S Expert
	Increased risk of theft	Provide adequate security at the project site	Construction phase	500,000	Number of sensitization	Construction phase	Project Management Team	

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
5.4.4.1.8		Conduct sensitizations among workers, students and surround communities			meetings conducted			
5.4.4.1.9	Risk of disturbing classes due to noise	Screening off the construction site, carrying out noisy activities on weekend or after classes	Construction phase	200,000	Presence of screen, absence of noise	Construction phase	Contractor, Project Management Team	
5.4.4.1.10	Loss of farm land	Prior notice to people who are cultivating on the land	Construction phase		Record of notice	Before construction phase	Project Management Team	
<b>5.4.5</b>	<b>Operation phase Negative Impacts</b>							
5.4.5.1	Increased risk of fire	Adequate number of portable fire extinguishers shall be placed at strategic locations.	Biannually during the operation phase	1,200,000	Percentage of operational extinguishers	Biannually during the operation phase	NTC	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 sprinkler system in place			
		Fire detectors and a sprinkler system shall be installed in all the buildings.						
5.4.5.2	Increased generation of solid waste	Provide colour coded waste receptacles for each room for organic, plastic, and glass waste;	Annually during operation phase	800,000	Availability of waste receptacles	Annually during the operation phase	NTC	MoE; TEVETA
		Conduct lesson plans for learners on solid waste management;			Training records			
		Excavate a 36 cubic metre compost pits for disposal of organic waste to			Amount of waste			

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		make compost manure that can be used in the college flower beds; and In consultation with Lilongwe District Council, identify a waste disposal site for non-degradable waste.			collected and properly disposed			
5.4.5.3	Increased risk to STIs, HIV and AIDS	Develop and implement an HIV and AIDS policy and a prevention, treatment, care and support programme; Sensitise staff and students on HIV and AIDS prevention; Free condoms shall be made available to the members of staff; and Distribution of information, education and communication (IEC) materials on STIs including HIV and AIDS.	Annually during operation phase	1,500,000	Availability of prevention programme Percentage of people sensitised Number of toilets with condoms made available	Annually during the operation phase	NTC	MoE; TEVETA
5.4.5.4	Increased demand for energy	Reduce energy consumption associated with lighting by using of occupancy sensors, high-efficiency 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.	Annually during operation phase	300,000	Amount of energy consumed	Annually during operation phase	NTC	MoE; TEVETA

<b>Impact Code</b>	<b>Impact</b>	<b>Mitigation Measures</b>	<b>Implementation Period</b>	<b>Implementation Cost (MWK)</b>	<b>Performance Indicator</b>	<b>Monitoring Frequency</b>	<b>Implementation Responsibility</b>	<b>Monitoring Responsibility</b>
5.4.5.5	Increased demand for water	Install Water-saving equipment, including ultra-low-flush toilets, spray nozzles, urinals, faucet aerators, and low-flow showerheads, and pressure-control valves; and Post notices to encourage the sparing use of water.	Annually during operation phase	300,000	Volume of water used	Annually during the operation phase	NTC	MoE; TEVETA
	Increased risk of theft and vandalism	Provide adequate security at the project site Conduct sensitizations among workers, students and surround communities	Operational phase	500,000	Number of sensitization meetings conducted	Operational phase	Project Management Team	Increased risk of theft
	<b>TOTAL</b>			<b>56,175,000</b>				

## 5.6 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 (Project Manager, Environmental and Social Safeguards Specialists, Social Safeguard Specialist, Project Engineer, Communication specialist, Financial Management Specialist, procurement specialist, Monitoring and Evaluation Specialist) () / Namitete Technical College Project Team	<ul style="list-style-type: none"> <li>• Provide support, oversight, and quality control to field staff working on environmental and social risk management.</li> <li>• Planning and implementation of ESMP.</li> <li>• Ensuring that the social and environmental protection and mitigation measures in the ESMP are incorporated into the site-specific Environmental and Social Action Plans.</li> <li>• Supervise and monitor the progress of contractors' activities.</li> <li>• Guide construction teams in conducting subsequent monitoring and reporting and in undertaking corrective options.</li> <li>• Ensure the submission of periodic environmental and social management and monitoring reports to the World Bank.</li> <li>• 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.</li> </ul>
MEPA	<ul style="list-style-type: none"> <li>• Monitor the integration environmental management into the project implementation.</li> <li>• Issuing environmental certificates where necessary</li> <li>• Provide advise on environmental matters on the project</li> </ul>
Supervision Consultant	<ul style="list-style-type: none"> <li>• Development of a monitoring tool or checklist based on the ESMP and guided by the project's physical layout.</li> <li>• Develop a monitoring program for the works, targeting specific project working sites, material sites, sensitive environments, social areas, etc.</li> <li>• Prepare monthly site meetings to involve the Contractor, Client and Stakeholders.</li> <li>• Monthly reports in addition to continuous communications to the Contractor, Client, Authorities and Stakeholders as situations require.</li> <li>• The Consulting Engineer will convene monthly meetings for progress reporting by the Contractor and the supervision team.</li> </ul>

Responsible Party	Roles and Responsibilities
The Contractor	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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,</li> <li>• Monthly reporting throughout the project period.</li> </ul>

**5.7 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. 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	External Consultant	PIU, Project Staff, Supervising Engineers, Contractors, and Contractor Workers:	<ul style="list-style-type: none"> <li>• ESF Requirements</li> <li>• Roles and responsibilities for environmental and social issues</li> <li>• Occupational health and safety</li> <li>• Labour requirements</li> <li>• Emergency prevention, preparedness, and response arrangements to emergency situations</li> <li>• Managing GBV/SEA risks</li> </ul>	MK5,000,000

Level	Responsibility Party	Audience	Topics / Themes	Estimated Cost (MK)
			<ul style="list-style-type: none"> <li>HIV and AIDS prevention and management</li> </ul>	
Namitete Technical College and surrounding community	Environmental Specialist	Namitete College Staff, Students, and Local Communities, Particularly Women:	<ul style="list-style-type: none"> <li>The function of the GRM and Grievance Redress Committees</li> <li>ESF Requirements</li> <li>Roles and responsibilities for environmental and social issues</li> <li>Emergency prevention, preparedness, and response arrangements to emergency situations</li> <li>GBV/SEA provisions and referral pathways</li> <li>Road safety and community health and safety</li> <li>HIV and AIDS prevention and management</li> </ul>	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.

**5.8 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.

**Table 5-7: Summary ESMP Implementation Budget**

SN	Activity/Cost Item	Potential Cost (MK)
1	Trainings for PIU and Project Staff (venue, travel, refreshments etc.)	MK5,000,000

SN	Activity/Cost Item	Potential Cost (MK)
2	Trainings for supervising engineers (venue, travel, refreshments, etc.)	MK5,000,000
3	Trainings for contractors (venue, travel, refreshments, etc.)	MK5,000,000
4	Printing of awareness-raising materials / grievance redress materials	MK1,000,000
5	Cost of obtaining clearances or permits	MK10,500,000
6	Implementation and monitoring of site-specific ESMPs and other site-specific plans	MK23,800,000
7	Travel and accommodation budget for environmental and social monitoring staff site visits	MK5,875,000
	<b>Total</b>	<b>MK56,175,000</b>

## 5.9 Stakeholder Engagement, Grievance Redress Mechanism, Disclosure, and Consultations

### *5.9.1 Stakeholder Engagement for the SAVE project*

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>

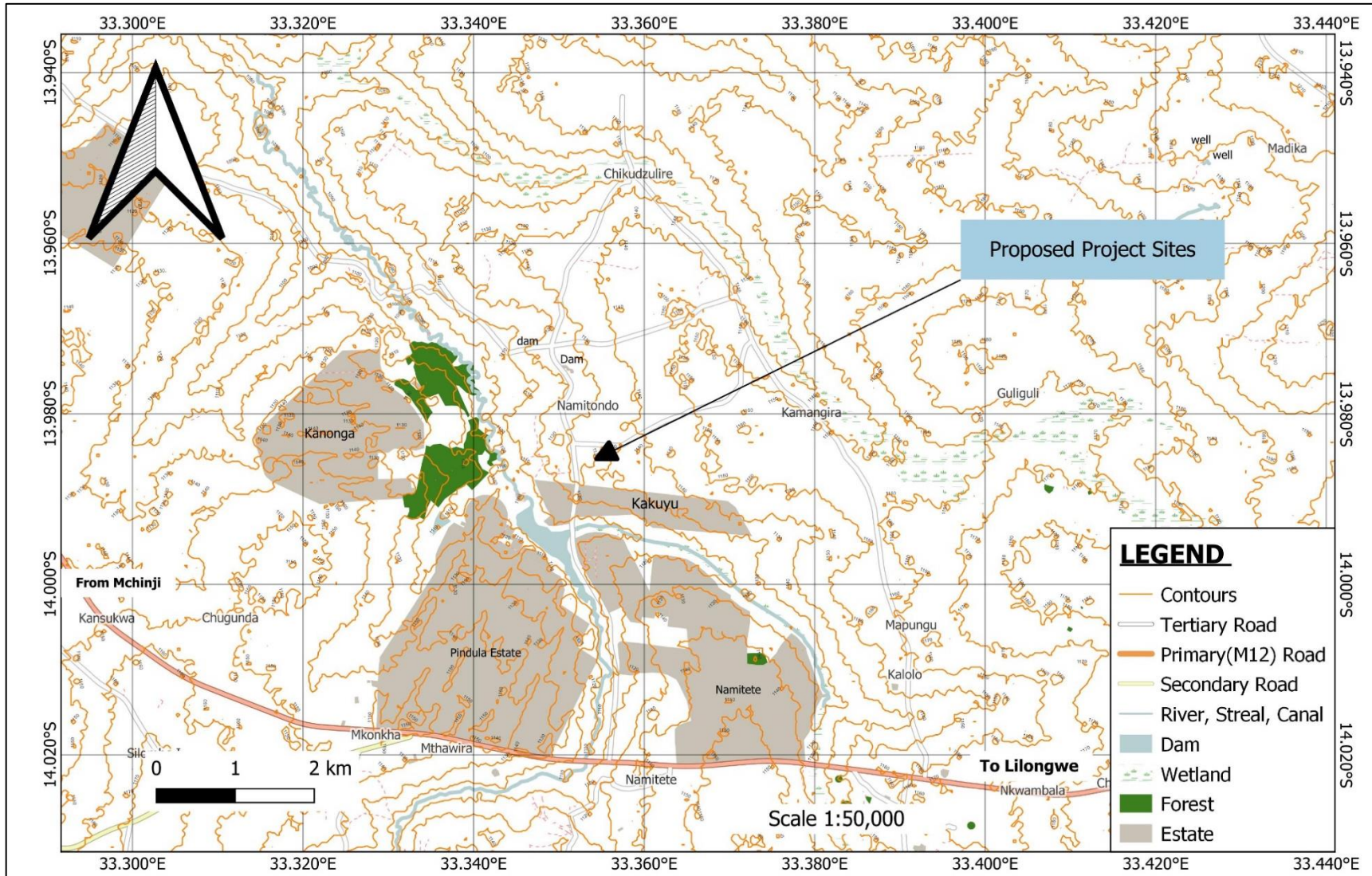
During the ESMP development process, various stakeholders were consulted on the proposed project design, anticipated environmental and social risks and impacts, mitigation measures, and grievance redress mechanism. Key Informant Interviews (KII) and Focus Group Discussions were used in data collection. 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.

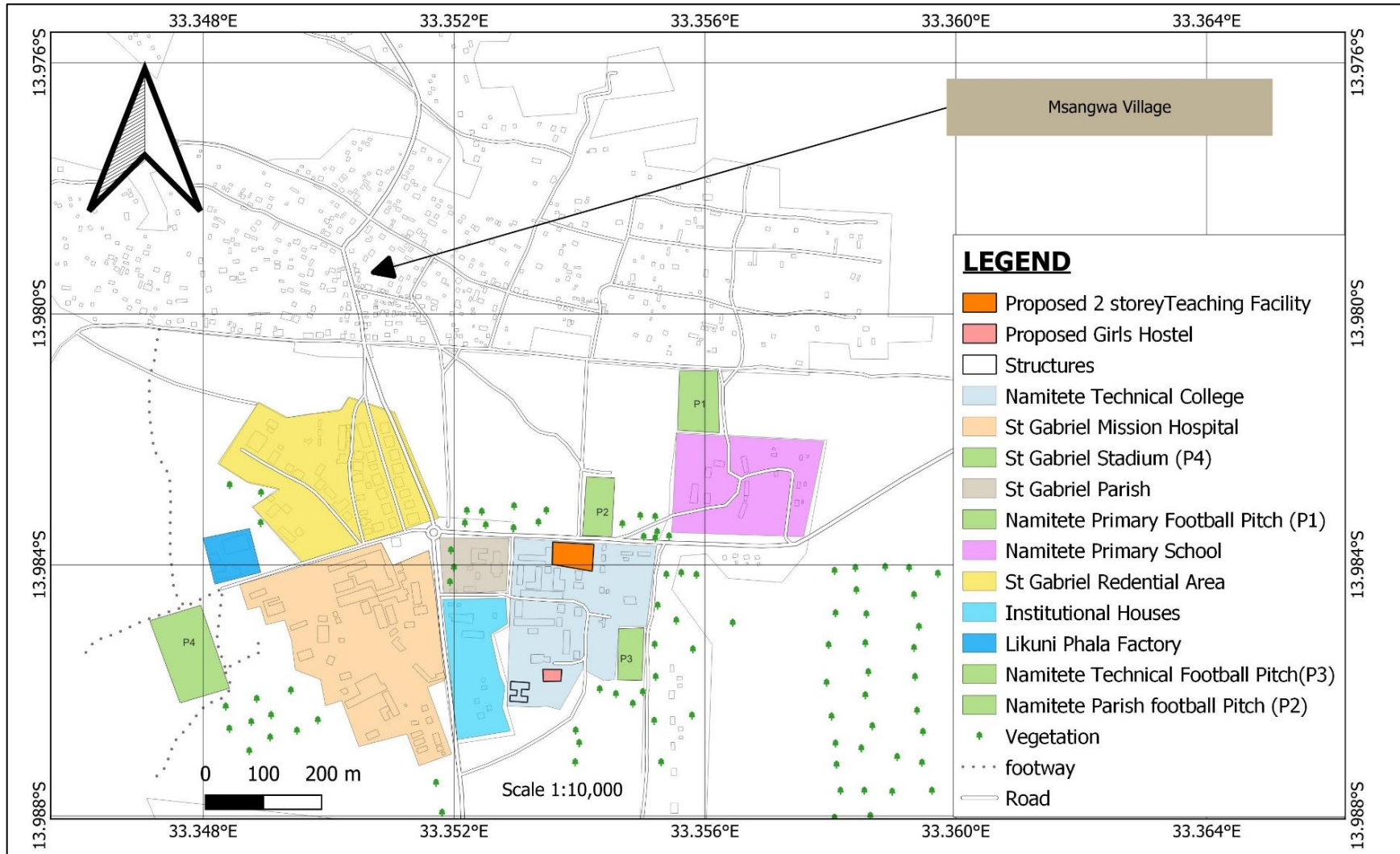
## Annex 1: Location Maps

### A1.1 Topography Map of the Project Site



## A1.2 Location Map of Project Site in Relation to other Hospital Facilities

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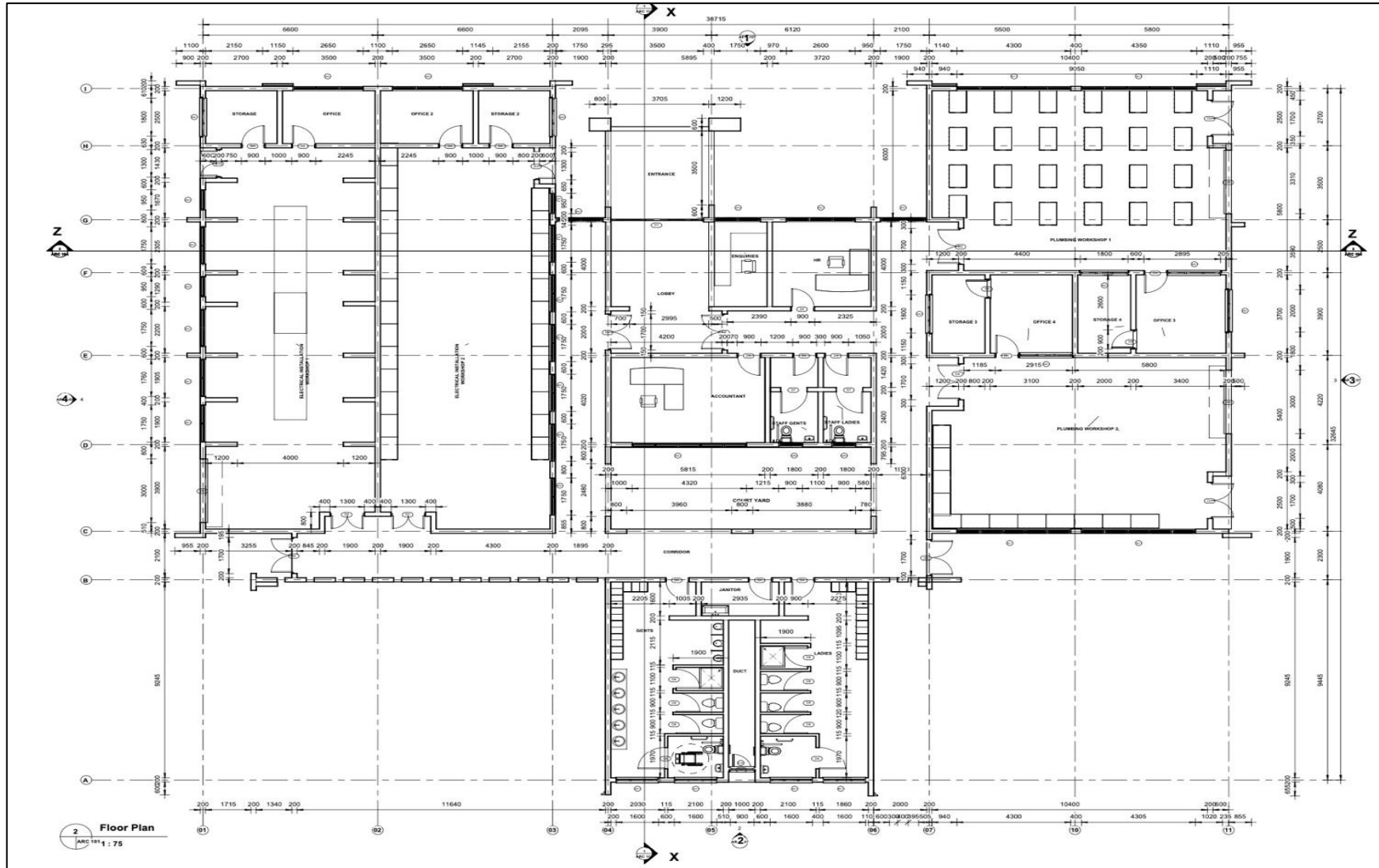


### A1.3 Google Image of the Project Site

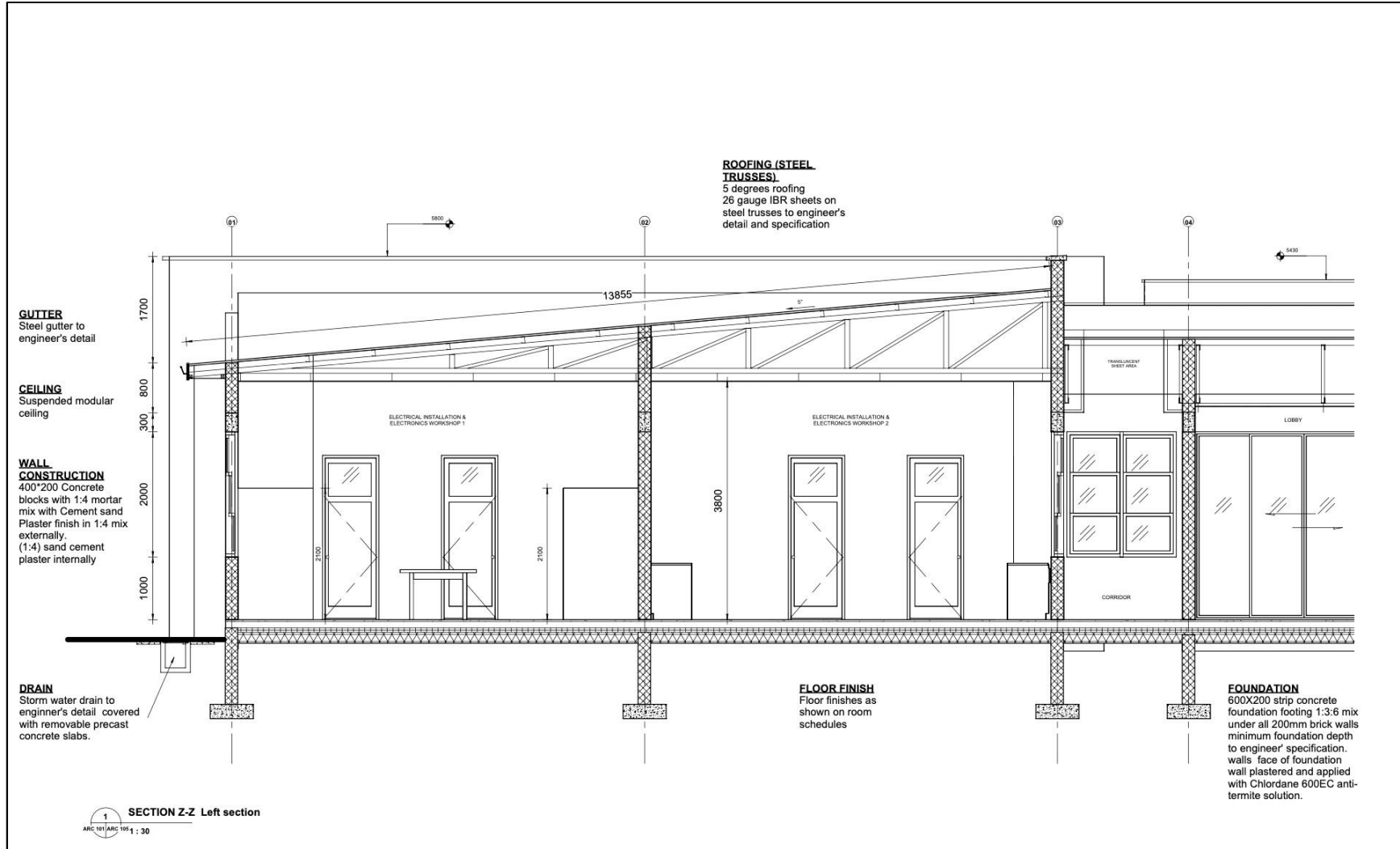


# Annex 2: Design and Layout Plans for the Workshop Building

## A2.1 Floor Plan



## A2.2 Sectional Design



### Annex 3: Project Screening Form

Namitete Technical College

**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: <u>Teaching area &amp; Girls Hostel</u>	District: <u>Lilongwe</u>
Project Location: <u>Namitete Technical College</u>	Nature/Size: <u>5000m<sup>2</sup></u>
Name & Signature of Evaluator: <u>B.B. Zikalala</u> <u>J. Njoma</u>	Date of Field Evaluation: <u>12/08/2022</u>

		Appraisal		Stage of EHS potential impact/risk/issue		Significance	Potential Mitigation Measures
		Yes / No		Construction	Operation		
1.0	Environmental Screening						
	Will the project generate the following impacts						
1.1	Loss of trees/vegetation/biodiversity	Yes	✓			Low	-Tree planting
1.2	Soil erosion/siltation in the area	NO					
1.3	Pollution to land-diesel oils	NO					
1.4	Dust emissions and increased particulate matter	Yes	✓			Low	-Fencing project area -Water work site -Provide PPE to workers
1.5	Solid waste generation	Yes	✓	✓		Low	-Store waste in designated -Reduce wastes - Reuse
1.6	Liquid wastes and waste water generation	Yes	✓	✓		Low	-Waste water collection points -Reduce water wastes
1.7	Introduction of hazardous chemicals and wastes	Yes	✓			Low	-Ensure indoor & sealed -Containment -Sanitization
1.8	Borrow pits and pools of stagnant	Yes	✓			Low	-Refilling the pits

	water					
1.9	Rubble/heaps of excavated soils	Yes	✓		Medium	Re-use the soil for brick moulding
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	Fencing - Provide the PPF
1.14	Loss of soil fertility	NO				
1.15	Incidence of flooding	NO				
1.16	Increased Energy use	Yes	✓	✓	Medium	Use alternative source of energy
1.17	Increased demand and/or portable water use	Yes	✓	✓	Medium	Installing water tank
8	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				
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	No				
2.8	Disruption of important pathways, roads	No				
2.9	Loss communal facilities - churches	No				
2.10	Loss of livelihood system	No				
2.11	Blockages to footpath/roads	No				
2.12	Bring resettlement	No				



Issues						
2.13 Spread of HIV/AIDS and other STIs	No					
2.14 Spread of Covid-19	Yes	✓	✓	Medium		Provide condoms - VCT services
2.15 Occupational safety and health issues	Yes	✓	✓	Medium		Provide PPE - Awareness Campaigns
2.16 Increase exposure of Hazardous chemicals and wastes	Yes	✓	✓	Low		Sealing Containers - Providing safe Storage
2.17 Safety issues with respect to poor building designs	No					
2.18 Exclude other users especially disabled and vulnerable with respect to poor building designs	No					
2.19 Increased GBV and SEA	Yes	✓	✓	Low		Sensitization meetings - GRI
Increased violence against children	Yes	✓		Low		Awareness Campaigns - Avoid employing children under 18 yrs of age

**Overall evaluation of Screening Exercises.**

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

Review of Environmental Screening	Tick	Review of Social and Economic Screening	Tick
1. The project is cleared. No serious impacts. (When all scores are "No" in form), though the bids/contracts still would have standard EHS clauses		1. The project is cleared. No serious social and economic impacts, (Where scores are all "No", "few" in form) though the bids/contracts still would have standard clauses on addressing emerging social and economic issues	
2. There is need for further assessment -ESMP or ESIA (when some score are "Yes, High" in form), as determined by MEPA		2. There is need for resettlement/ compensation. (When some score are "Yes, High" in form) including need for ESMP or ESIA as determined by MEPA	
Approval by Environmental officer/		Approval by Director of Planning and Development	
Name: Taqala Senterera		Name: Willard Cherry	
Signature: [Signature] Date: 15/08/22		Signature: [Signature] Date:	

**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 type of environmental and social negative impacts should be expected during the operation and maintenance phase of the proposed project 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

<u>ENVIRONMENTAL AND SOCIAL RESEARCH CONSULTING (ESRC)</u>				
<u>STAKEHOLDER CONSULTATION SIGNING SHEET</u>				
NAME	INSTITUTION/ LOCATION	DESIGNATION	CONTACT	SIGNATURE
Edny Mwangomb	LL-DC	PNHVO	0999615676	
Michael Bismach	LLDC	Gen'l Control Officer	0888091208	
Kate Mwaupigwu	LL-DC	A+O Labour	0991369800	
Harriet Matemula	LLDC	SASWD-Gen'l	0999408189	
Maggie Magombo	LLDC-Social	SASWD	0999922332	
Agatha Mhango	LLDC-Cambur	CSD	0993694466	
Saint Pastor	Fire Dept LL	Fire officer	0997355380	

<u>STAKEHOLDER CONSULTATION SIGNING SHEET</u>				
NAME	INSTITUTION/ LOCATION	DESIGNATION	CONTACT	SIGNATURE
DEBORAH MALUWA	NAMITETE	STUDENT	0886319060	D. Maluwa
MEMORY KAMBONI	NAMITETE	STUDENT	0984003072	
Delliah mathuwa	Namitete	STUDENT	0886012418	D. Mathuwa
Wonderful Tembo	Namitete	STUDENT	0986322136	W. Tembo
Thocco Mbendera	NAMITETE	STUDENT	08884994743	
Zulqasi Jere	NAMITETE	STUDENT	0981096575	
Chimwemue Jackson	Namitete	STUDENT	0991516627	
VICTORIA JACKSON	Namitete	STUDENT	0983081642	V. Jackson
GRACE KANJABZA	NAMITETE	STUDENT	0991046059	
Faith Tadala Chimwenderji	Namitete	student	0990637943	

**STAKEHOLDER CONSULTATION SIGNING SHEET**

NAME	INSTITUTION/ LOCATION	DESIGNATION	CONTACT	SIGNATURE
CHISOMO BISATOMO	NAMITETE	STUDENT	0990153341	
Michael Myula	Namitete	Student	0991908253	M. myula
Grant Kagona	Namitete	Student	0995961920	
GODFREY MBEWE	NAMITETE	STUDENT	0996161726	
Winston Chakaza	Namitete	student	0993009325	
LEMUS B. CHAMPULA	NAMITETE	Student	0993101121	
CHARLES KHORITO	NAMITETE	STUDENT	0990538872	
Alfred Kasani	Namitete	Student	0997838281	
Vincent Kamera	Namitete	Student	0991526331	
THOKOZANI KAJIYA	NAMITETE	Student	0997691220	

**STAKEHOLDER CONSULTATION SIGNING SHEET**

NAME	INSTITUTION/ LOCATION	DESIGNATION	CONTACT	SIGNATURE
ABRIANO CHINZIRI	NAMITETE SCHOOL	HT	0995641145	
SAIWALA MULOLO	NAMITETE "	QHT	0999164138	
BERTHA JANA	NAMITETE "	TEACHER	0981320745	
GREY MADZIMAYERA	NAMITETE "	TEACHER	0995182463	
HARRISON STEVEN	NAMITETE "	TEACHER	0999629127	
CONSOLATA KAMBA	NAMITETE "	TEACHER	0992768020	
AUSELIO MDZIWA	NAMITETE "	TEACHER	0886354563	
Jean Kanda	St. Gabriel's	SNO	0884810530	
FRANK JAMBANI	MSANGWA	GIXHMSANGWA	0996274906	FRANK
maxwell mandella	MSANGWA	VDC	0987365332	
Ibrahim Wolch	msangwa	community police	0992449392	
Given Muba	msangwa	Community police		
Ridiba Mawwa	msangwa	community police	0990159825	AM I
Piyasi Kaswawa	msangwa	titoma chief	099562855	
DOROTHY admission	msangwa	member		DM

### A4.3 Stakeholders Comments

SN	Name	Issue Raised	Recommendation
1	Teachers FGD (Namitete Model Primary School)	<b>Positive Impacts</b>	
		Job creation for the community and basic needs will be available for the people.	The students at the college and people from the community can gain work experience. Workers should be encouraged to work hard and improve livelihood for their families.
		More enrolment at the college because of the new structure	The new structure will bring in more infrastructure in the community.
		Children will be motivated and will work hard.	
		Enrolment will increase at the college.	
		Businesses will boom because of the new people in the community.	Businesses should have good relationships between buyer and trader.
		Landlords will benefit from the new tenants that will be working on the project.	
		<b>Negative Impacts</b>	
		Trees will be lost during the construction stage.	More trees should be planted after the construction is finished for conservation of the environment.
		Classes will be disrupted because of the noise or the use of heavy machinery on the site.	The construction site should be closed off to avoid disruptions of classes.
		Sexual relationships among workers and students can also spread STIs in the community.	Sensitisation should be done by the community leaders and the hospital; abstinence should be encouraged and also condoms should be supplied for those that cannot abstain.
		Noise pollution and smoke pollution can be another challenge during the construction phase.	The developer should use machinery that undergoes servicing to avoid bad fumes.
Accidents should be avoided at all costs during construction.	Protective gear should be supplied and training the workers on how to operate machinery.		
2	Staff (Namitete Technical College)	There will be increased employment opportunities for the locals i.e. unskilled labourers, guards, carpenters, builders	The surrounding locals should be priority when considering who to employ on the project
		The institution will expand in terms of infrastructure, number of students and equipment available	Provide enough security on the site Ensure that plans are followed, and standard work is produced
		Risk of spread of diseases like respiratory, covid-19 and STIs	Sensitise the community members, students and workers on the site
			Provide handwashing facilities Distribute condoms
		Loss of vegetation on the site	Replace trees that have been cut

SN	Name	Issue Raised	Recommendation
		Increased land degradation especially at sand sources	Ensure that the areas where sand will be sourced are rehabilitated
		Increased risk of theft on the site and the institution in general	Provide enough security on the site
		Loss of farmland	Redistribute the remaining available land among the staff evenly so that others are not left worse off
		Increased pressure on resources i.e. water and electricity	Use alternative sources of water and power and not that of the institution
			Increase the pump capacity of the borehole that is available at the institution
			Install solar power to ensure that there is reliable power to pump water into the tank
		Poor waste disposal on the site	The project should have their own toilets and restrict usage of the institution facilities by the workers
		Increased noise pollution may disturb school activities	There should be hoarding around the site
		Increased risk of traffic accidents for the primary school learners at Namitete Primary School	Put up traffic signs to warn drivers and learners alike to indicate hazards
		Enrolment will increase at the institution	Provide adequate academic resources i.e. more qualified teachers, equipment
		The institution will be beautified by the new facility	Ensure regular maintenance of the facilities and landscape the surroundings
			The whole campus should be fenced to secure it from potential destruction
Increased risk of conflicts between community members and students	There should sensitisation activities on the project for both parties		
3	Female Students FDG (Namitete Technical College)	<b>Positive Impacts</b>	
		Increase of new courses offered.	Students should help spread the word regarding the new courses offered especially to secondary schools.
		Bricklaying students and others can do their attachments	The students should also be involved in the construction work
		People from the community can be employed	The developer should practice fair recruitment and selection process between the community and current students from the college.
		The community can experience an economic boom because of the workers from the project.	Businesses should aim to provide good quality services and goods.
		There will be enough space for learning and accommodating students on campus	
		<b>Negative Impacts</b>	
Trees will be cut down during construction.	The community should plant more trees after the construction work is done.		

SN	Name	Issue Raised	Recommendation
		Marriage disruption in the community because of the workers at the site.	Sensitisation should be done before the project works start regarding sexual transmitted diseases and sexual relationships.
		Dust pollution is expected during construction	Masks should be provided for the workers on the site.
		The use of heavy machinery can also damage the environment.	
		Conflicts can arise among the workers and students working on the project.	A code of conduct should be followed by the students and people employed from the community
4	Male Students FGD (Namitete Technical College)	The project might bring employment opportunities through the employment of college alumni	the project/contractor should consider employing skilled labour from those who graduated from the college as a way of supporting them
		Skills development by involving students to learn or partake in the project works especially those that doing practicals/ attachments.	Students practicals should be part of the project as a way of developing skills that have be learnt at the college allowing the lectures to use the project as teaching area for easy understanding especially for those pursuing brick laying and related courses
		Increase of spread of STIs and HIV & AIDS due to high sexual relationships between students and employed workers by the contractor	Sensitize students and the construction workers about the associated effects of the project Encourage the use of condoms to those who cannot abstain
		Disruption of classes due to noise pollution	Noisy activities should be done after classes and encourage use of less noisy machinery at the site.
		The project will cause air pollution through dust emissions	The project should ensure that the roads are suppressed with water regularly the project area should be fenced by erecting a holding preferably made of iron sheets
		Congestion in rooms will be reduced at hostels	Project should consider constructing a boys hostel
		Possible conflicts between employed workers and male students should be anticipated	Due to the disturbance of a social lifestyle at the school, it is highly anticipated that it will likely cause conflicts therefore a proper mediating/communication should be followed
		The project will improve the school's enrolment and class performance for the students	Those residing off campus will have higher changes to residing on campus
		During construction students might have opportunities of attachments in order for them to get hands on skills especially for those doing construction related courses	The contractor should consider giving students a practical /attachment opportunity so that they can improve in their qualified skills
5	Community FDG	<b>Positive Impacts</b> Job creation for the people in the community.	The committee should be in the fore front of all activities regarding the operations of the project.

SN	Name	Issue Raised	Recommendation
	(Group Village Headman Msangwa)	Learning new skills for those employed on the construction site.	
		Gaining new work experience for the workers	
		Reduction of bad habits especially from the youngster because they will be occupied with work on the project site.	The youngster are being protected by being at work.
		More children will be able to get enrolment at the college because of the new structure.	
		There will be more business opportunities in the community.	
		<b>Negative Impacts</b>	
		Health and safety measures should be put into consideration especially when harmful materials are in use like cement.	Protective gear should be provided to the workers during construction period.
		Health risks can also arise because of the workers and people in the community because of sexually relationships.	The community should be sensitised regarding the new project coming in the area and also about the health risks that can come with the project especially sexually transmitted diseases.
		Salaries are sometimes not paid on time or in other cases even paid after the project has finished.	The workers should be protected by the labour laws that have been put in place by the government.
		Dust pollution can also be another health challenge that can be faced during construction stage.	The area should be covered to avoid dust from affecting the people in the area and masks should also be provided for the workers.
6	Edna Mwagomba (PNAO-Lilongwe District Council)	<b>Positive Impacts</b>	
		increased enrolment at the college.	
		Development and beautifying the community	
		Employment opportunities for the people in the area	
		<b>Negative Impacts</b>	
		sexual activities will increase because of the new workers and may lead to an increase of sexually transmitted diseases and HIV and AIDS	Provision of condoms to workers and sensitization regarding HIV and Aids. Provision of free testing services for HIV and AIDS
Dust emissions in the area			
7	Social Welfare Officer-Lilongwe District council	<b>Positive Impacts</b>	
		Reduction of illiterate in the community as more young people will get a chance of work and can proceed with their education by paying for their school fees.	Young people in the area should be encouraged to work hard during work hours and also pursue their dreams as well like getting an education while working on the site.
		Reduced cases of sexual abuse because the learners will be accommodated on campus unlike off campus accommodation	The college should have strict rules and regulations on the campus for them to separate male and female learners for them to reduce the cases of rape at the college too.
		People in the community will get employed by the developer	



SN	Name	Issue Raised	Recommendation
		Learners will get attachment privileges during the construction phase.	
		<b>Negative Impacts</b>	
		Cutting down of trees when levelling the place	More trees should be planted after the construction is finished for conservation of the environment.
		Heavy excavations might damage the environment	
		There will be dust emissions during construction which is harmful to the workers	Protective gear like masks should be provided to avoid diseases like TB
		Increased demand of goods and services during construction stage like water and energy	The community should have times allocated for the use of water; the project can construct boreholes to ease up the conflicts coming in because of the use of water
		Increased sexual interactions between the migrant workers and the people in the community	
		Child labour issues might arise on the site.	Labour laws should be adhered to during recruitment stage.
8	Gender Officer- Lilongwe District council	<b>Positive Impacts</b>	
		Businesses will boom in the community because the people will be selling their goods to the workers.	Small scale businesses should strive to sell good quality goods to the people on the project and in the community as well.
		Local artisans and the people will get jobs on the construction site.	The community can advise the recruiters regarding the habits of some of the local artisans and how to handle them during construction phase.
		The community's outlook will change because of the new building	The community and learners should take ownership of this development in their community and take part in taking care of it.
		Sexual abuse cases will decline because of the new hostel building	
		<b>Negative impacts</b>	
		increased gender-based violence in the community because men will have money and can have extra marital affairs.	Men should be sensitised about the bad habits that may come with having money, they should try and be faithful to their partners and supportive meeting all their basic needs.
		Child marriages cases can also increase especially with the girls' doing businesses near the construction site	Young girls should be protected by the community, and they should make sure they are in school and not loitering on the site.
		There can be an increase in sexually transmitted diseases in the area because of increased sexual interactions because of the migrant workers.	the community should be sensitized before the project commences about the new people coming in the area.
		Noise pollution may be another challenge because of the use of heavy machinery.	
9	Agatha Mhango	<b>Positive Impacts</b>	

SN	Name	Issue Raised	Recommendation
	(Community Development Officer- Lilongwe District Council)	The accommodation at the college will increase and the college will be able to accommodate more learners	The learners should take responsibility of taking care of the infrastructure so that it can still serve its purpose to other learners in future.
		Parents will not pay off campus accommodation fees because of the new hostel provided for the learners	
		People in the community will get employed by the developer and will be able to improve their livelihood.	
		<b>Negative impacts</b>	
		Vegetation will be affected especially trees when levelling the land for construction	More trees should be planted after the construction is finished for conservation of the environment.
		The use of heavy machinery can damage the environment, the land could be prone to soil erosion.	All the burrow pits should be filled after completing the construction to avoid soil erosion.
		Heavy machinery will might bring about noise pollution in the area.	
10	Adriano Chinziri (Head Teacher Namitete Model Primary School)	There will be increased risk of accidents for learners	Conduct awareness campaigns to educate and sensitise the learners and the workers
		Increased dust emission on the site which may cause respiratory infections	The site should be fenced all round
		Increased risk of sexual relations between female learners and male workers on the site	
11	Sarai Kang'ombe (St. Gabriel Mission Hospital – Matron)	<b>Positive Impacts</b>	
		Increased number of students and improved health living conditions for the female students	
		Increased revenue for the hospital	
		The hospital will also benefit from the use of interns from the college	
		<b>Negative Impacts</b>	
		Increased risk of accidents and injuries to workers and the surrounding people	Provide emergency medical kits (first aid kits) on the site and train the personnel on how to use them Enough information should be given regarding avoidance of accidents
		A lot of respiratory diseases are expected because of the dust and smoke inhalation on the site.	Provide the necessary PPE like face masks
		Increased number of students and improved health living conditions for the female students	
		The main challenge for the hospital is shortage of supplies	

## 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	NTC PIU; District Social Welfare Office (DSWO)	<ul style="list-style-type: none"> <li>• Identify GBV service providers in the area.</li> <li>• Identify vulnerable groups within the community.</li> <li>• Inform community members about the details of the project and the GBV risks associated with the project.</li> <li>• GBV training including what to do in case of grievance.</li> </ul>
GBV training for GRC, contractor and staff, consultants and adjoining community members	NTC PIU; Contractor; DSWO	<ul style="list-style-type: none"> <li>• Training and sensitisation of all workers associated with the project on GBV and how the project can contribute to GBV risks.</li> <li>• Training and sensitisation of adjoining communities on GBV risks, channels to report GBV incidents and services available for GBV survivors.</li> </ul>
Codes of conduct signed and understood	NTC PIU; Contractor	<ul style="list-style-type: none"> <li>• Ensure requirements in the CoCs are clearly understood by those signing.</li> <li>• Have the CoCs signed by all those with physical presence in the site.</li> <li>• Train construction workers on the behaviour obligation under the CoCs.</li> </ul>
Handling GBV complaints (including support of survivors)	GRM	<ul style="list-style-type: none"> <li>• Grievance Redress Committees to ensure confidential complaint uptake mechanisms are in place.</li> <li>• The GBV cases should be immediately reported to the Police (Victim Support Unit), District Social Welfare Office, and psychosocial support institutions working in the project area or district.</li> </ul>
Provision of separate, safe and easily accessible facilities for women and men working on the site	NTC PIU; Contractor	<ul style="list-style-type: none"> <li>• Ensure construction sites have separate facilities like toilets and/or bathrooms for men and women.</li> </ul>
Monitoring and reporting	NTC PIU; Contractor; DSWO	<ul style="list-style-type: none"> <li>• 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).</li> <li>• Ensure new risks are uncovered and mitigated.</li> </ul>

## **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.

<b>Type of Risk</b>	<b>Management of Risk</b>	<b>Action Party</b>
Recruitment of inappropriate personnel	<ul style="list-style-type: none"> <li>• Child safety training</li> <li>• Reference checking</li> <li>• Pre-screening interviews</li> <li>• Criminal history checks</li> <li>• Working with children checks</li> <li>• Probation period</li> </ul>	Contractor
Grooming	<ul style="list-style-type: none"> <li>• Code of conducted</li> <li>• Training for all staff, volunteers, leaders etc.</li> </ul>	Contractor, District Social Welfare Office
Use of images or video of children and young people without parental consent	<ul style="list-style-type: none"> <li>• Code of Conduct.</li> <li>• Training for all staff, volunteers, leaders etc.</li> <li>• Photo and video policies.</li> </ul>	Contractor
Misconduct unreported and failure to address behaviour surrounding misconduct	<ul style="list-style-type: none"> <li>• Training for all staff, volunteers, leaders etc.</li> <li>• Code of conduct and child protection policies.</li> <li>• Procedures and protocols responding to misconduct.</li> </ul>	Contractor
Unsafe environment leading to occurrence of accidents	<ul style="list-style-type: none"> <li>• First aid kit must be readily available on site.</li> <li>• Appoint first aid officers.</li> <li>• Conduct risk assessment of all construction activities and identify risks management options.</li> </ul>	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 hospital 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 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 hospital visiting hours.

### A8.5 Public Communication

- **Information Dissemination:** Use multiple channels including local leaders to keep the public informed about construction schedules and road closures.
- **Signage and Maps:** Provide clear signage and maps around the hospital to help drivers and pedestrians navigate the area during construction.

#### **A8.6 Emergency Access**

- **Uninterrupted Emergency Routes:** Ensure that access routes for emergency vehicles to the hospital are always clear and unobstructed. Coordinate with hospital security and local emergency services to develop contingency plans.
- **Regular Coordination:** Hold regular coordination meetings with emergency services to review and adjust access routes as needed.

#### **A8.7 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.

#### **A8.8 post-construction**

- **Site Restoration:** 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**

### **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 Namitete Technical College to manage grievances at the Institutional & Community level. For this GRM, a community comprises the Group Village Headman area where Namitete Technical College is located. The committee comprises Namitete staff and student 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, Namitete 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.
- ✓ **The Workers Grievance Redress Management Committee (WGRMC)** will be established to manage work-related grievances. Membership has to comprise two workers' representatives, a Namitete College representative, a 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 the Project Implementation Unit Grievance Redress Management Committee (PIUGRMC).

#### **B. PIU Level**

- ✓ **Project Implementation Unit Grievance Redress Management Committee (PIUGRMC)**  
If the case was not closed at the 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 accepts 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 Namitete Technical College campus.
- A **GRM Focal Person's Phone Number** with WhatsApp and text facilities (+265997418950)

A GRM Focal Person's **Email Address.** (lexamvula361@gmail.com)

## **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, as defined by IFC PS 2: 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;
- 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, as per IFC PS 2, 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 several 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;
- An influx of migrant workers;
- Gender Based Violence GBV (Sexual Harassment, Sexual Exploitation and Abuse, Rape and Discrimination)
- Violence against Children; (Child labour, Defilement, Child Marriage)
- Risk of contracting HIV and AIDS and STIs;
- Risk of Contracting COVID-19
- Risk of exposure to hazardous materials and wastes
- Risk of excess exposure to noise and vibrations
- Increased competition over resources due to the influx of labour
- Discrimination and exclusion of vulnerable groups;
- 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 fuelling 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 work stations 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 when a spill occurs (stop, contain, report, clean up and record).
- A map showing the locations of spill kits or other cleaning equipment. This should also be included in the C-ESMP.



### ***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.
- 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 the 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.
- Appoint an Emergency Response team which includes an appropriate first aid representative and a fire warden.
- 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.

- Ensure that the boxes are properly safe guarded and that First Aiders name appears on the box.
- Should any activity involve hazardous chemical substances, or any other specific first aid emergencies, this must be brought to the attention of the emergency coordinator.
- Ensure the first aid certificate is current.
- 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.
- Attend the relevant firefighting training.
- Report any unserviceable or damaged fire- fighting equipment to the Emergency Response Representatives.

#### 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;
- Bi-annual emergency response drills; and
- Annual reporting on training.