



MALAWI GOVERNMENT
MINISTRY OF EDUCATION

P172627

SKILLS FOR A VIBRANT ECONOMY(SAVE) PROJECT

**ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN FOR VARIOUS
STRUCTURES FOR THE COMPETITIVE GRANT WINNING INSTITUTIONS**



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Executive Summary

This is an Environmental and Social Management Plan (ESMP) for the proposed construction of various structures for Grant Winning Institutions under Technical, Entrepreneurial, Vocational and Education Training Authority (TEVETA). The construction and related activities will be undertaken at several technical colleges and institutions in Malawi supported by the Skills for a Vibrant Economy (SAVE) Project.

This ESMP supports the implementation of environmental and social measure for activities financed by the World Bank under the Skills for a Vibrant Economy (SAVE) Project. The Government of Malawi is implementing the SAVE project through the Ministry of Education and the Ministry of Labour and Vocational Training, with funding from the World Bank. The 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 sub-project activities involve the construction and provision of various educational and training facilities across several technical colleges and institutions in Malawi. The activities will be undertaken at 15 Grant Winning Institutions under TEVETA, namely, Kasama Community Technical College in Chitipa district, MIRACLE Technical Institute in Karonga district, Mburunji Community Skills Development Centre (CSDC) and Phwezi Rural Polytechnic in Rumphu district, Ezondweni Community Technical College (CTC) in Mzimba district, Sonda Community Skills Development Centre in Mzuzu city, Solar Energy and Ecology Institute (SEEI) in Nkhata-Bay district, Kasungu Community Skills Development Centre in Kasungu Municipality, Ntchisi Community Skills Development Centre and Mthiransembe (CSDC) in Ntchisi district, Kapondo Community Technical College in Mchinji district, SOS and MACODA in Lilongwe City, Andiamo in Balaka district and Mangochi Community Technical College in Mangochi District.

The construction activities include establishment of workshops (for motor vehicle and motorcycle mechanics, carpentry and joinery, fashion and design, plumbing, brick laying, electrical installation), animal housing for demonstrations, greenhouses installations, solar photo-voltaic, ICT labs, administration blocks, dining and kitchen block, ablution blocks, and hostels.

This Environmental and Social Management Plan (ESMP) has been prepared to identify the potential environmental and social risks and impacts of proposed sub-project activities and propose suitable mitigation measures to manage these risks and impacts. It maps out Malawi's laws and regulations and the World Bank policies applicable to the Project, and describes the

principles, approaches, implementation arrangements, and environmental and social mitigation measures to be followed.

The ESMP preparation involved desk studies, site inspections, stakeholder consultations, and documentation. Desk studies reviewed project documents and various national legislations. Field data collection was carried out from 26th March to 3rd April 2025 and assessed environmental, social, health, and economic factors, focusing on identifying potential impacts and ensuring compliance with national and international standards.

The anticipated environmental and social impacts from the sub-project have been summarised in the subsections below.

Positive Impacts:

- Enhanced Skills Development
- Improved Educational Facilities
- Infrastructure Improvement
- Creation of Job Opportunities
- Increased Student Exposure to Practical Training Opportunities

Negative Impacts:

- Disruption of the provision of education services
- Disturbance of graveyard site during burial ceremonies
- Increased risks of GBV, SEA, and defilement
- Potential incidents and accidents to the students
- Increased Incidences of child labour
- Increase in deterioration of air quality
- Increase in noise levels from machinery and construction activities
- Increased occupational accidents and injuries on-site affecting workers
- Increase the risk of discriminatory working conditions
- Increased risk of infectious diseases
- Increased 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 impacting local flora and fauna
- Increased risk of soil contamination due to improper handling and disposal of construction materials, e-waste and improper use of laboratory wasteland chemicals
- Increased risk of Water Contamination from improper disposal of construction waste, e-waste and improper use of laboratory wasteland chemicals
- Increased dust emission

- Increased risk of traffic disruption
- Increased risk of community health and safety
- Air pollution from animal waste Odors from khola

A management and monitoring plan has been provided in this report with an implementation budget of MWK **MK85,350,000.00** for all institutions. The management and monitoring detail measures to manage and mitigate the identified environmental and social risks associated with the construction activities. Additionally, this ESMP in the annexes provides specific GBV Management Plan, Code of Conduct for Contractor, Child Safety Management Plan and Traffic Management Plans to manage specific risks.

The ESMP will be implemented through existing implementation arrangements at national, regional, district and site. These include the Project Implementation Unit, TEVETA, District Councils and other relevant National Competent Authorities (MEPA, Ministry of Labour, Ministry of Education) and local structures. Implementation of the ESMP measures at the site rests with the contractor.

Monitoring implementation of the environmental and social mitigation measures in this ESMP will be undertaken by the PIU, Environmental Affairs Department (EAD), in conjunction with the Ministry of Education, Ministry of Labour, city Councils and Municipalities and district authorities. The methodology for monitoring will include on-site visits, document/report reviews, and the frequency of monitoring and reporting will be monthly and subject to phase of the sub-projects and nature of the anticipated risks.

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List of Acronyms and Abbreviations

AIDS	Acquired immunodeficiency syndrome.
CoF	Certificate of fitness
CoC	Code of conduct
COVID-19	Coronavirus Disease 2019
DCPC	District Civil Protection Committees
DESC	District Environment Sub-Committee
DSWO	District Social Welfare Office
EMA	Environmental Management Act.
ESF	Environmental and Social Framework.
ESMF	Environmental and Social Management Framework.
ESMP	Environmental and Social Management Plan
FGD	Focus group discussion
GBV	Gender-based violence
GRM	Grievance redress committee
GVH	Group village headman
HIV	Human immunodeficiency virus
HVAC	Heating Ventilation and Air Conditioning
IEC	Information, Education, And Communication
IFC	International Finance Corporation
KII	Key informant interviews
MEPA	Malawi Environment Protection Authority
MoH	Ministry of Health
OSC	One-stop centres
OSH	Occupational safety and health
PAP	Project affected persons
PDO	Project development objective
PEAs	Primary education advisors
PPE	Personal protective equipment
SEA	Sexual exploitation and abuse
SGBV	Sexual and gender-based violence
SH	Sexual harassment
SRGBV	Sexual Reproduction Gender Based Violence
STI	Sexually transmitted infection
TA	Traditional authority

Chapter 1. : Introduction

This Environmental and Social Management Plan (ESMP) supports the environmental and social due diligence for activities financed by the World Bank under the SAVE project. The SAVE project aims to enhance access to market-relevant skills programs, ensuring equitable training for women, girls, and vulnerable youth. It focuses on creating a supportive policy environment and strengthening institutional capacity in areas such as Technical, Entrepreneurial, and Vocational Education and Training, Higher Education Reforms, student loans, industrial links, digital technology, safeguards, capacity building, and technical assistance.

The SAVE project consists of 4 Components which are:

- Component 1. Supporting public higher education institutions in increasing equitable access to market relevant skills development programs.
- Component 2 - Supporting Technical, Entrepreneurial, and Vocational Education and Training to increase equitable access to market relevant skills development.
- Component 3- Tertiary education student financing and system strengthening, project management, M&E and communications; and
- Component 4- Contingency Emergency Response.

Through the Project component 2, Sub-component 2.2, selected Community Technical Colleges (CTCs), Private Technical Colleges (PvtTCs), and Community Skills Development Centres (CSDCs) will be supported to expand their training offers in line with market needs, especially targeting vulnerable and female youth. To benefit from these funds, institutions applied for funding to a Competitive Grants Fund set up by TEVETA. It is expected that in total 25 institutions will be supported with an average grant amount of US\$ 500,000. Currently, the fund will be supporting 15 CGWIs comprising 5 CTCs, 5 PvtTCs, and 5 CSDCs for cohort one to expand their training offers in line with market needs, especially targeting vulnerable and female youth. Details of the drawings have been provided under annex 9.

1.1 Project background

The SAVE Project will specifically support and finance the construction of various structures in 15 Grant-Winning Institutions under TEVETA. These structures include workshops (for motor vehicle mechanics, carpentry and joinery, fashion and design, plumbing, electrical installation, solar photovoltaic systems, greenhouses, livestock housing, bricklaying, and motorcycle mechanics), ICT laboratories, administration blocks, dining and kitchen blocks, ablution blocks, and hostels. At Kasama Community Technical College in Chitipa District, various workshops, girls' hostel and a kitchen will be constructed. At MIRACLE Technical Institute in Karonga District, there will be construction of a livestock laboratory, electronics laboratory, ICT lab, and animal cages. In Rumphi district, Mbulunji CSDC will Construct an administration block,

classroom block, girls' hostel, workshop, and procurement of equipment. Phwezi will receive equipment for greenhouses and a girls' hostel. Ezondweni in Mzimba District will receive a 44-bed girls' hostel, ICT laboratory, and classrooms. Sonda Community Skills Development Centre in Mzuzu City will have an ICT lab and a plumbing block constructed. The Solar Energy and Ecology Institute (SEEI) in Nkhata Bay District will benefit from a dining, hostel, solar house, and fabrication workshop. Kasungu Community Skills Development Centre will have a laboratory, hostel block, workshop, and administration block constructed. Ntchisi Community Skills Development Centre will receive an ICT laboratory, ICT classroom, fabrication and welding workshop, classrooms, and motorcycle workshop, while Mthiransembe Community Skills Development Centre in Ntchisi District will benefit from workshops, a TFD classroom, a girls' hostel, and a carpentry workshop. Kapondo Community Technical College in Mchinji District will receive workshops, offices, mini stores, a technical drawing room, and a computer laboratory. At SOS, the project will construct two girls' hostels, a matron's house, and an agro-processing warehouse. MACODA in Lilongwe City will receive a 44-bed girls' hostel, engineering workshop, and plumbing workshop. Andiamo in Balaka District will benefit from a solar photovoltaic system, plumbing workshop, and girls' hostel. Lastly, Mangochi Community Technical College in Mangochi District will have an ICT laboratory, girls' hostel, climate-smart agriculture workshop, greenhouse, and laboratory constructed.

This ESMP follows the World Bank Environmental and Social Framework (ESF) as well as the Environment Management Act (2017), Guidelines for Environment and Social Impact Assessment of Malawi and other associated regulations of Malawi. The objective of the ESMP is to assess and mitigate potential negative environmental and social risks and impacts of the sub-projects consistent with the Environmental and Social Standards (ESSs) of the World Bank ESF and national requirements which have been specified under section 3.4. 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 successfully implement the provisions of the ESMP;
- e) address mechanisms for public consultation and disclosure of project documents as well as redress of possible grievances (annex 10); and
- f) establish the budget requirements for implementation of the ESMP.

The ESMP preparation involved desk studies, site inspections, stakeholder consultations, and documentation. Desk studies reviewed project documents and various national legislations. The study team conducted field surveys in the project sites between 26th March to 3rd April 2025 and assessed environmental, social, health, economic, and legal factors, focusing on identifying potential impacts and ensuring compliance with national and international standards. Focus Group Discussions (FGDs) were held with various groups within the Technical College community, including academic and support staff, male and female learners and residents from all the colleges. Please refer to Annex 2 for more information on the list of consultees, issues raised during consultations and how they have been incorporated in this ESMP.

This ESMP should be read together with other plans prepared for the project, including the Environment and Social Management Framework, Stakeholder Engagement Plan (SEP), Labour Management Plan (LMP) and the Environmental and Social Commitment Plan (ESCP). The contractor's ESMP will be developed based on this ESMP.

The total project costs are estimated to be MK 6,739,076,129.00, of which MK85,350,000.00 will be used for implementing ESMP. The project is expected to be completed in 5 months from June 2025, with workforce requirements varying between 20 and 50 employees per site. The construction works will require between 505 to 705 people with the roles depicted in Table 2-3. The construction project will be implemented across fourteen institutions with varying estimated costs. Andiamo Technical College is budgeted at MK 195,971,026.07, Kasama Community Technical College at MK 691,852,150.44, and Miracle Community Technical College at MK 690,458,289.23. Kasungu Community Technical College has an allocation of MK 510,161,977.32, while the Malawi Council for Disability Affairs stands at MK 393,465,765.17. SOS will receive MK 260,853,045.48, Mangochi Community Technical College MK 289,240,481.66, and Kapondo Community Technical College MK 328,410,233.43. The Solar Energy and Ecology Institute carries the highest cost at MK 772,000,000.00, followed by Mbulunji Community Skills Development Centre at MK 750,000,000.00. Ntchisi Community Skills Development Centre is budgeted at MK 369,384,143.25, Mthirasembe Technical College at MK 323,789,018.35, Ezondweni Community Technical Institute at MK 562,500,000.00, and Phwezi Technical College at MK 602,400,000.00.

1.2 Methodology

1.2.1 Stakeholder Consultations

Consultations played a pivotal role in the development of the ESMP, serving to address potential anxieties and concerns that might arise from the project. This, in turn, aimed to enhance the project's acceptance among both local communities and government authorities. Furthermore, consultations facilitated the incorporation of diverse perspectives from various stakeholders, including government officials and community members, with the goal of formulating strategies

to prevent or mitigate adverse impacts while maximising positive impacts. Stakeholder consultations remained an ongoing process throughout the study period and the drafting of the report'. These consultations were conducted in accordance with Annex G on page 46 of the 1997 Guidelines for ESIA. A brief description of how each method of conducting public consultations was executed is provided below.

Key informant Interviews (KII) and Focus Group Discussions (FGDs)

Key informant interviews (KIIs) were employed in the data collection process because of their capacity to complement Focus Group Discussions (FGD). At the City level, the key informants included representatives from the city council development committee and at district level, DESC meetings were conducted in all the districts. Additionally, KIIs were also conducted at all colleges including students, staff members, and the project's (GRM) committee. These interviews aimed to gather valuable insights into various key issues discussed during the consultations. A summary of the key issues raised by KIIs is provided in AnnexA2.2

1.2.2 Community Focus Group Discussions

The project's impact areas primarily focused on the campus itself and the surrounding residential communities within the project impact area. Focus Group Discussions (FGDs) were conducted to gain insights and perspectives on this impact, involving both academic and support staff as well as male and female learners. FGDs were chosen because of their capacity to create a relatively less intimidating environment, which encouraged participants to openly discuss their views and experiences. This approach allowed for a reflective discussion of participants' perceptions, facilitating the clarification of issues, and providing the study team with deeper insights into the matter. Evidence of FGD participants is provided in annex, and the key issues identified are detailed in the same annex 2.

1.2.3 Specialised studies

The study also carried out baseline specialised studies. These include biodiversity assessment and air quality assessment mainly in hot spot sites which were sampled out initially. Key findings have been presented in Chapter four of the report.

Chapter 2. : Project Description

This chapter provides a description of the project and main project components.

2.1 Nature of the Project

The SAVE Project Development Objective (PDO) aims to increase access to labour market-relevant skills development programmes in participating institutions, targeting priority areas of the economy, particularly for females. The proposed project involves the construction and operation of various educational and training facilities across selected technical colleges in Malawi. The scope includes infrastructure development, installation of renewable energy systems, specialized training workshops, and accommodation and associated facilities, all aimed at enhancing technical and vocational education. Below is a table 2-1 with information of the interventions at each site. The project will likely affect the adjacent sensitive receptors mainly schools and communities from noise, dust, air pollution, vibrations, traffic congestion and safety during construction phase, and also risks of exposure to chemicals during the operation phase. detailed impacts have been provided under chapter five.

Table 2- 1 : List of interventions to be developed at each of the institutions

S/n	Name of Technical College	District/City	Interventions
1	Kasama Community Technical College	Chitipa District	44-bed girls' and boys' hostels, Solar Powered Kitchen, Dining Hall, ICT Workshop and Green House
2	MIRACLE Technical Institute	Karonga District	Classroom block, hostel and <i>khola</i> (Demonstration animal housing)
3	Mburunji (CSDC)	Rumphi District	Girls Hostel, Administration Block and two blocks containing Classroom, Workshop
4	Phwezi Rural Polytechnic	Rumphi District	Girls hostel and green houses
5	Ezondweni CTC	Mzimba District	44 bed girls Hostel and ICT laboratory
6	Sonda Community Skills Development Centre	Mzuzu city	ICT laboratory, plumbing and carpentry workshops and associated classrooms
7	Solar Energy and Ecology Institute (SEEI)	Nkhata-Bay District	Fabrication workshop, solar home, male dormitory and restaurant/cafeteria/telecentre at solar energy and ecology institute
8	Kasungu Community Skills Development Centre	Kasungu Municipality	Laboratory, hostel block, workshop and administration block

9	Ntchisi Community Skills Development Centre and	Ntchisi District	ICT laboratory, ICT classroom, fabrication and welding workshop and classroom, motorcycle workshop and classroom
10	Mthiranseme (CSDC)	Ntchisi District	Girls hostel, TFD and carpentry workshops and classrooms
11	Kapondo Community Technical College	Mchinji District	Workshops, instructors' office, mini stores, administrative and technical drawing room and computer laboratory
12	SOS Pv.TC	Lilongwe City	Two 40 bed girls' hostel, matrons house, warehouse and green houses
13	MACOHA	Lilongwe City	Construction of 44 bed girls' hostel, engineering and plumbing workshops
14	Andiamo	Balaka District	Solar Photovoltaic and plumbing workshops and girls' hostel
15	Mangochi Community Technical College	Mangochi District	ICT Laboratory, Girls Hostel, Climate Smart Agriculture Workshop and Green House and TAL Laboratory.

2.2 Project Location

The 15 Grant Winning Institutions to benefit from the fund under TEVETA include Northern Region: Kasama Technical College (Chitipa), Miracle Technical College (Karonga), Mbulunji and Phwezi Technical Colleges (Rumphi), Ezondweni Technical College (Mzimba), Sonda Community Skills Development Center (Mzuzu City), and Solar Energy and Ecology Institute (Nkhatabay). Central Region: Kasungu Community Skills Development Center (Kasungu Municipality), Kapondo Community Technical College in Mchinji, Ntchisi Technical College and Mthiranseme Technical College (Ntchisi), SOS and MACODA Technical Colleges (Lilongwe City). Southern Region: Andiamo Technical College (Balaka) and Mangochi Technical College (Mangochi). **Refer to Annex 1 – A1.1** for geographical distribution of the institutions and the proposed areas where the construction activities will be undertaken. Kasama Technical College is located in the northern part of Chitipa District, positioned between the S100 and M9 roads—east of the latter and west of the former. Miracle Technical College lies on the western outskirts of Karonga District, near the northern tip of Malawi. It is situated approximately 985 meters from the Karonga Airport Office and shares a compound with Chaminade Secondary School. In Rumphi District, Mbulunji Technical College is found to the east, near the T305 road, approximately 1.1 km from Mbulunji Full Primary School. Phwezi Technical College is also located in the eastern part of the district, bordering an inactive graveyard and situated within 100 meters north of the South Rukuru River. Ezondweni Community Technical. Biodiversity and cultural heritage screening was carried out during the study and key findings have been presented under chapter four.

College is situated in Mzimba North, at the headquarters of Traditional Authority (T/A) Mthwalo. Sonda Community Skills Development Center is located within Mzuzu City, surrounded by residential housing and a church to the west. It is about 3.1 km from Mzuzu

Central Hospital and 3.4 km from Mzuzu University, both to the east. The Solar Energy and Ecology Institute (SEEI) is situated east of the Nkhata-Bay District Council, along the M5 road, just 50 meters from the road. Kasungu Community Skills Development Center is located in Kasungu Township. The site is 680 meters east of Kasungu Dam, 613 meters southwest of Chikho Hotel, and 1.1 km southwest of Kasungu Stadium. Kapondo Technical College is situated in the central region of Mchinji District. The proposed site lies to the west of the M18 and D162 roads at 400 and 450 meters respectively and partially borders the Kapondo CCAP Church. Ntchisi Technical College is situated 310 meters west of the M7 road, approximately 1.2 km northeast of Ntchisi District Hospital.

Mthiransembe Technical College is also in the western part of Ntchisi District, west of the M7 road. In Lilongwe City, SOS Technical College is positioned west of the M1 road, adjacent to NCIC and Partners in Hope offices. St. John’s Catholic Primary and Secondary School lies 280 meters further west. MACODA Technical College is 185 meters east of Chilambula road and shares a boundary with Malawi Assemblies of God University. Andiamo Technical College in Balaka is located west of the M8 and T399 roads (1.2 km and 90 meters away, respectively), and 967 meters west of the railway line. Finally, Mangochi Technical College is situated in Chiwina Village, Mangochi Town, positioned 300 meters west of the M3 road and 100 meters east of the T385 road. Mangochi Admarc is 630 meters to the west. **Refer to Maps in Annex 1 – A1.2 and A1.3** for site locations and spatial details. Table 2-2 and following figure 2-2 show coordinates for the sites and location of the site respectively.

Table 2- 2 :Showing coordinates for the project sites

Name of Site	Easting	Northing
Kasama Technical College in Chitpa District	544856.43	8911117.53
Miracle Technical College in Karonga District	597301.00	8899727.01
Mbulunji Technical College in Rumphi District	611935.90	8804112.60
Phwezi Technical College in Rumphi District	613528.41	8794999.72
Sonda Community Skills Development Center in Mzuzu city	605866.26	8735217.93
Solar Energy and Ecology Institute (SEEI) in Nkhata-Bay District	634404.26	8703667.79
Kasungu Community Skills Development Center in Kasungu District	552041.66	8557443.83
Kapondo Technical College in Mchinji District	508236.10	8493580.85

Ntchisi Technical College in Ntchisi District	599077.78	8523537.09
Mthiransembe Technical College in Ntchisi District	591286.36	8530343.97
SOS Technical College in Lilongwe city	585235.37	8449563.69
MACODA Technical College in Lilongwe city	583859.60	8456364.26
Andiamo Technical College in Balaka District	709750.83	8340454.31
Mangochi Technical College in Mangochi District	743084.97	8397466.61

WGS 1984 UTM ZONE 36S

2.3 Estimated Number of Employees

The project is expected to employ both skilled and unskilled labour. The following table 2-3 shows the expected workforce for the project. Skilled labour will involve both local and external workers while unskilled labour will be from within the surrounding communities.

Table 2- 3: Estimated Workforce Roles and Responsibilities for the project sites

Role	M b u l u n j i C T C	S o n d a C T C	M i r a c l e C T C	K a s u n g C T C	P h w e z i C T C	S E E I	K a s a m a C T C	M A C O D A	M t h i r a n s e m b e C T C	N t c h i s i C T C	E z o n d w e n i C T C	K a p o n d o C T C	S O S	M a n g o c h i T C	A n d i a m o T C	Responsibility
Management and Supervision	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	Oversees the entire project, manages daily operations, timelines, budgets, and safety. Includes Project Managers, Supervisors, and Site Engineers.
Engineering and Technical	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	Ensures structural integrity, system installations (electrical, plumbing, solar, ICT), and civil works. Includes Engineers, Electricians, Plumbers.

Role	M b u l u n j i C T C	S o n d a C T C	M i r a c l e C T C	K a s u n g C T C	P h w e z i C T C	S E E I	K a s a m a C T C	M A C O D A	M t h i r a n s e m b e C T C	N t c h i s i C T C	E z o n d w e n i T C	K a p o n d o C T C	S O S	M a n g o c h i T C	A n d i a m o T C	Responsibility
Skilled Trades	24	25	20	15	18	24	17	24	12	11	16	15	20	23	20	Handles construction, framework, masonry, flooring, roofing, steelworks, and welding.
General Labor	12	25	24	17	18		22	30	23	25	20	20	22	28	22	General site support — clearing, loading, material handling, and site cleanup.
Safety and Logistics	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	Enforces safety protocols, supervises delivery, storage of materials and site access management.
Surveying and Finishing	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	Handles site surveys, finishing stages, and quality checks.
Specialized Installers	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	Handles ICT, solar, heavy equipment, and greenhouse system installation.
Support Services	9	11	10	10	9	7	9	7	8	7	7	9	8	6	7	Waste management, landscaping, and support services.

The project implementation cycle for the proposed construction of various structures for the Competitive Grant-winning institutions includes mobilisation, construction, finishing, and demobilisation phases. During mobilisation, detailed project planning and scheduling will be developed, roles will be assigned, permits will be obtained, and materials will be procured. The construction phase will involve foundation work, building the main structural framework, constructing walls, partitions, and roofing, and installing plumbing, electrical, and HVAC systems. The finishing phase will include painting, installing tiles, fixtures, furniture, and specialized equipment. During demobilisation, temporary facilities and construction debris will be removed, and a formal handover to the institutions will be performed.

2.4 Construction Process Inputs and Outputs

2.4.1 Construction Material

Table 2-4 provides estimates based on standard practices and the assumed size and scope of the sub-project activities. Considering local material availability and specific project requirements, the estimated materials and quantities are not final and can change.

The main raw materials for construction are cement, hollow blocks, quarry stone and dust, timber and steel.

Table 2- 4 : Construction Materials

Material	Estimated Quantity Range (per site)	Typical Usage	Source of Material	Mode of Transportation
Cement	2,000 – 3,500 bags	Foundations, mortar, plastering, floors	Local suppliers in district towns	Truck
Sand	150 – 300 m ³	Concrete mix, mortar, plastering	Local suppliers	Truck
Gravel	100 – 250 m ³	Concrete for foundations, slabs	Local suppliers	Truck
Concrete Blocks	8,000 – 15,000 blocks	Walls, partitions for hostels, workshops, admin blocks	Local suppliers	Truck
Steel Reinforcement	8 – 15 tonnes	Reinforcing concrete structures	Local suppliers	Truck
Roofing Sheets (IBR)	1,500 – 3,500 m ²	Roofing buildings and greenhouses	Local suppliers	Truck

Steel Trusses	30 – 60 trusses	Roof support for classrooms, hostels, admin blocks	Local suppliers	Truck
Tiles (600 × 600 mm)	1,000 – 3,000 m ²	Floors in hostels, admin offices, laboratories, kitchens	Local & imported	Truck
Ceramic Wall Tiles	300 – 800 m ²	Walls in wet areas (toilets, kitchens, labs)	Local & imported	Truck
Paint (Acrylic PVA)	1,500 – 3,500 litres	Internal and external wall painting	Local suppliers	Truck
Electrical Cables	3 – 8 km	Building electrical installations	Local suppliers	Truck
Plumbing Pipes (PVC)	2 – 5 km	Plumbing for water supply, drainage	Local suppliers	Truck
Solar Panels & Equipment	20 – 60 panels, 5–15 inverters	Solar systems for kitchens, hostels, labs	Solar suppliers	Truck
Doors (Wooden/Metal)	40 – 120 units	Room access for various buildings	Local & imported	Truck
Windows (Aluminium)	60 – 150 units	Natural lighting, ventilation	Local & imported	Truck
Glass Panes	400 – 1,000 m ²	For windows, greenhouse partitions, classrooms	Local & imported	Truck
Suspended Ceiling Panels	1,200 – 3,000 m ²	Ceiling finishes in various buildings	Local & imported	Truck
Termite Treatment Chemical	80 – 150 litres	Foundation termite treatment	Local suppliers	Truck
Concrete for Foundation	180 – 400 m ³	Strip foundations and bases	Local suppliers	Truck
PVC Flooring	200 – 600 m ²	Specialist rooms, laboratories	Local & imported	Truck
Waterproofing Material	250 – 600 m ²	Foundations, kitchens, wet areas	Local suppliers	Truck
Greenhouse Polythene/Material	200 – 600 m ²	Greenhouse covering	Local/Imported	Truck

Greenhouse Steel Frame	5 – 15 tonnes	Greenhouse structure	Local suppliers	Truck
Miscellaneous Fixtures	Various	Screws, nails, hinges, taps, lights	Local suppliers	Truck
Water	40,000 – 90,000 litres	Concrete mixing, curing, construction cleaning	Boreholes, rivers	Water bowser
Energy (Electricity)	8,000 – 15,000 kWh	Construction equipment, lighting	ESCOM/ Solar Energy/ Generator	Connected from local grid

2.4.2 Construction Waste Generation and Management

The sub-projects are expected to produce different types of waste. Table 2-5 shows the expected type of waste and proposed management measures.

During the operational phase, various types of waste will be generated across the constructed facilities. The majority of this waste will be domestic in nature, comprising solid waste (such as food scraps, paper, plastics, and general refuse) and liquid waste (mainly wastewater from washrooms, kitchens, and workshops). These will arise from structures such as hostels, classrooms, dining halls, administration blocks, laboratories, and workshops.

In addition, facilities such as greenhouses and kholas (animal shelters) will generate non-domestic waste. Greenhouses are expected to produce agricultural waste like plant trimmings, soil residues, and packaging from agricultural inputs. Kholas will produce animal waste, including manure, bedding materials, and wastewater from cleaning activities. These wastes should be managed through appropriate agricultural and livestock waste management systems, separate from domestic waste handling.

2.4.3.2.1 Andiamo Technical College

2.4.3.2.1.1 Solid Wastes

The solid wastes such as papers, cardboards, tins, glass, and food wastes are expected during the operational phase. Collection at the site shall be the responsibility of the college administration or contractor. Waste skips shall be provided at strategic areas within the premises.

Formula for solid waste calculation: Number of People Estimated × Solid Waste Generation Rate (kg/capita/day) × % Population to Generate Waste = Estimated Solid Waste (kg/day)

Table 2- 5 : Estimated Quantity of Solid Waste – Andiamo Technical College

SN	Facility	Number of People	Generation Rate (kg/capita/day)	% Population to Generate Waste	Estimated Solid Waste (kg/day)
1	Girls Hostel	50	0.35	100%	17.5
2	Solar PV Workshop	100	0.35	50%	17.5
3	Plumbing Workshop	60	0.35	50%	10.5
	Total				45.5

2.4.3.2.2.2 Liquid Wastes

Liquid waste will be collected from the hostel and workshops and directed to septic tanks.

Formula for liquid waste calculation: Number of People Estimated × Water Consumption Rate (Litres/capita/day) × % Consumed to become wastewater × % Population that will Use Toilets = Estimated Wastewater (m³/day)

Table 2- 6: Estimated Wastewater – Andiamo Technical College

SN	Facility	Number of People	Water Consumption (L/capita/day)	% to Wastewater	% Use Toilets	Estimated Wastewater (m ³ /day)
1	Girls Hostel	50	80	80%	100%	3.2
2	Solar PV Workshop	100	50	80%	50%	2.0
3	Plumbing Workshop	60	60	80%	60%	1.728
	Total					6.928

2.4.3.2.2 Kasama Community Technical College

2.4.3.2.2.1 Solid Wastes

The college will generate waste from hostels, kitchen, dining, greenhouse, and workshop. Waste skips will be positioned at accessible areas and managed by administration.

Formula for solid waste calculation: Number of People Estimated × Solid Waste Generation Rate (kg/capita/day) × % Population to Generate Waste = Estimated Solid Waste (kg/day)

Table 2- 7: Estimated Quantity of Solid Waste – Kasama CTC

SN	Facility	Number of People	Generation Rate (kg/capita/day)	% Population to Generate Waste	Estimated Solid Waste (kg/day)
1	Girls Hostel	40	0.35	100%	14.0
2	Boys Hostel	40	0.35	100%	14.0
3	Dining Hall	80	0.35	100%	28.0
4	Workshop	60	0.35	50%	10.5
5	Greenhouse	10	0.35	50%	1.75
	Total				68.25

2.4.3.2.2.2 Liquid Wastes

Liquid waste from hostels, dining, and workshops will be managed through septic systems and soakaways.

Formula for liquid waste calculation: Number of People Estimated × Water Consumption Rate (Litres/capita/day) × % Consumed to become wastewater × % Population that will Use Toilets = Estimated Wastewater (m3/day)

Table 2- 8 : Estimated Wastewater – Kasama CTC

SN	Facility	Number of People	Water Consumption (L/capita/day)	% to Wastewater	% Use Toilets	Estimated Wastewater (m3/day)
1	Girls Hostel	40	80	80%	100%	2.56

2	Boys Hostel	40	80	80%	100%	2.56
3	Dining Hall	80	60	80%	100%	3.84
4	Workshop	60	60	80%	50%	1.44
5	Greenhouse	10	40	80%	50%	0.16
	Total					10.56

2.4.3.2.3 Miracle Community Technical College

2.4.3.2.3.1 Solid Wastes

The college will produce waste from the classroom block, hostel, and khola. All waste will be collected in skips and managed by college administration.

Formula for solid waste calculation: Number of People Estimated \times Solid Waste Generation Rate (kg/capita/day) \times % Population to Generate Waste = Estimated Solid Waste (kg/day)

Table 2- 9: Estimated Quantity of Solid Waste – Miracle TC

SN	Facility	Number of People	Generation Rate (kg/capita/day)	% Population to Generate Waste	Estimated Solid Waste (kg/day)
1	Classroom Block	80	0.35	100%	28.0
2	Hostel	50	0.35	100%	17.5
3	Khola	20	0.35	50%	3.5
	Total				49.0

2.4.3.2.3.2 Liquid Wastes

Liquid waste will be generated mainly from the hostel and classroom block and managed using septic tanks.

Formula for liquid waste calculation: Number of People Estimated \times Water Consumption Rate (Litres/capita/day) \times % Consumed to become wastewater \times % Population that will Use Toilets = Estimated Wastewater (m³/day)

Table 2- 10 : Estimated Wastewater – Miracle CTC

SN	Facility	Number of People	Water Consumption (L/capita/day)	% to Wastewater	% Use Toilets	Estimated Wastewater (m3/day)
1	Classroom Block	80	60	80%	100%	3.84
2	Hostel	50	80	80%	100%	3.2
3	Khola	20	40	80%	50%	0.32
	Total					7.36

2.4.3.2.4 Kasungu Community Technical College

2.4.3.2.4.1 Solid Wastes

Solid waste will be generated from the hostel, laboratory, workshop, and administration block. These include paper, food waste, packaging materials, etc. Waste skips will be installed and managed by the institution’s administration.

Formula for solid waste calculation: Number of People Estimated × Solid Waste Generation Rate (kg/capita/day) × % Population to Generate Waste = Estimated Solid Waste (kg/day)

Table 2- 11: Estimated Quantity of Solid Waste – Kasungu CTC

SN	Facility	Number of People	Generation Rate (kg/capita/day)	% Population to Generate Waste	Estimated Solid Waste (kg/day)
1	Hostel	60	0.35	100%	21.0
2	Laboratory	40	0.35	100%	14.0
3	Workshop	40	0.35	50%	7.0
4	Admin Block	20	0.35	100%	7.0
	Total				49.0

2.243.2.4.2 Liquid Wastes

Liquid waste from the hostel, laboratory, and workshop will be collected via septic tanks and soakaways.

Formula for liquid waste calculation: Number of People Estimated × Water Consumption Rate (Litres/capita/day) × % Consumed to become wastewater × % Population that will Use Toilets = Estimated Wastewater (m³/day)

Table 2- 12 : Estimated Wastewater – Kasungu CTC

SN	Facility	Number of People	Water Consumption (L/capita/day)	% to Wastewater	% Use Toilets	Estimated Wastewater (m ³ /day)
1	Hostel	60	80	80%	100%	3.84
2	Laboratory	40	60	80%	100%	1.92
3	Workshop	40	60	80%	50%	0.96
4	Admin Block	20	50	80%	100%	0.8
	Total					7.52

2.4.3.2.5 Malawi Council for Disability Affairs

2.4.3.2.5.1 Solid Wastes

Waste is expected from the girls' hostel, engineering, and plumbing workshops. All waste will be collected using skips and disposed through appropriate waste management systems under the college's supervision.

Formula for solid waste calculation: Number of People Estimated × Solid Waste Generation Rate (kg/capita/day) × % Population to Generate Waste = Estimated Solid Waste (kg/day)

Table 2- 13 : Estimated Quantity of Solid Waste – Malawi Council for Disability Affairs

SN	Facility	Number of People	Generation Rate (kg/capita/day)	% Population to Generate Waste	Estimated Solid Waste (kg/day)
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1	Girls Hostel	80	0.35	100%	28.0
2	Engineering Workshop	60	0.35	50%	10.5
3	Plumbing Workshop	40	0.35	50%	7.0
	Total				45.5

2.4.3.2.5.2 Liquid Wastes

Liquid waste will arise mainly from the hostel and workshops and will be handled through septic tanks and soakaways.

Formula for liquid waste calculation: Number of People Estimated × Water Consumption Rate (Litres/capita/day) × % Consumed to become wastewater × % Population that will Use Toilets = Estimated Wastewater (m³/day)

Table 2- 14: Estimated Wastewater – Malawi Council for Disability Affairs

SN	Facility	Number of People	Water Consumption (L/capita/day)	% to Wastewater	% Use Toilets	Estimated Wastewater (m ³ /day)
1	Girls Hostel	80	80	80%	100%	5.12
2	Engineering Workshop	60	60	80%	50%	1.44
3	Plumbing Workshop	40	60	80%	50%	0.96
	Total					7.52

Let me know if you'd like me to continue with the next institutions (SOS and onward), and I'll keep adding in this format.

2.4.3.2.6 SOS Children Village

2.4.3.2.6.1 Solid Wastes

Solid waste will be generated from the girls’ hostels, matron’s house, agro-processing warehouse, and greenhouses. Waste skips will be placed in accessible areas and waste managed by the college or designated contractor.

Formula for solid waste calculation: Number of People Estimated × Solid Waste Generation Rate (kg/capita/day) × % Population to Generate Waste = Estimated Solid Waste (kg/day)

Table 2- 15 : Estimated Quantity of Solid Waste – SOS Children Village

SN	Facility	Number of People	Generation Rate (kg/capita/day)	% Population to Generate Waste	Estimated Solid Waste (kg/day)
1	Girls Hostels (2x40-bed)	80	0.35	100%	28.0
2	Matron’s House	5	0.35	100%	1.75
3	Agro-Processing Warehouse	30	0.35	50%	5.25
4	Greenhouses	20	0.35	50%	3.5
	Total				38.5

2.4.3.2.6.2 Liquid Wastes

Wastewater will mainly come from hostels, the warehouse, and residential unit, and will be directed into septic tanks and soakaways.

Formula for liquid waste calculation: Number of People Estimated × Water Consumption Rate (Litres/capita/day) × % Consumed to become wastewater × % Population that will Use Toilets = Estimated Wastewater (m3/day).

Table 2- 16 : Estimated Wastewater – SOS Children Village

SN	Facility	Number of People	Water Consumption (L/capita/day)	% to Wastewater	% Use Toilets	Estimated Wastewater (m ³ /day)
1	Girls Hostels (2x40-bed)	80	80	80%	100%	5.12
2	Matron's House	5	100	80%	100%	0.4
3	Agro-Processing Warehouse	30	60	80%	50%	0.72
4	Greenhouses	20	40	80%	50%	0.32
	Total					6.56

2.4.3.2.7 Mangochi Community College (Mangochi District)

2.4.3.2.7.1 Solid Wastes

Solid wastes will be generated from the ICT lab, girls' hostel, climate-smart agriculture workshop, greenhouse, and TAL lab. The administration will ensure proper placement of waste skips and coordinate with municipal services or private contractors for disposal.

Formula for solid waste calculation: Number of People Estimated × Solid Waste Generation Rate (kg/capita/day) × % Population to Generate Waste = Estimated Solid Waste (kg/day).

Table 2- 17 : Estimated Quantity of Solid Waste – Mangochi Community Technical College

SN	Facility	Number of People	Generation Rate (kg/capita/day)	% Population to Generate Waste	Estimated Solid Waste (kg/day)
1	Girls Hostel	50	0.35	100%	17.5
2	ICT Laboratory	40	0.35	50%	7.0
3	Climate-Smart Agriculture WS	30	0.35	50%	5.25
4	Greenhouse	20	0.35	50%	3.5
5	TAL Laboratory	30	0.35	50%	5.25

	Total				38.5
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2.4.3.2.7.2 Liquid Wastes

Liquid waste will be generated from the hostel, workshops, labs, and greenhouses. A decentralized sanitation system will be applied using septic tanks and soakaways.

Formula for liquid waste calculation: Number of People Estimated × Water Consumption Rate (Litres/capita/day) × % Consumed to become wastewater × % Population that will Use Toilets = Estimated Wastewater (m³/day)

Table 2- 18 : Estimated Wastewater – Mangochi Community Technical College

SN	Facility	Number of People	Water Consumption (L/capita/day)	% to Wastewater	% Use Toilets	Estimated Wastewater (m ³ /day)
1	Girls Hostel	50	80	80%	100%	3.2
2	ICT Laboratory	40	50	80%	50%	0.8
3	Climate-Smart Agriculture WS	30	50	80%	50%	0.6
4	Greenhouse	20	40	80%	50%	0.32
5	TAL Laboratory	30	50	80%	50%	0.6
	Total					5.52

2.243.2.8 Kapondo Community Technical College

2.4.3.2.8.1 Solid Wastes

Solid waste will be produced from the workshops, offices, mini-stores, technical drawing room, and computer lab. Proper waste collection will be organized with the placement of skips in strategic locations.

Formula for solid waste calculation: Number of People Estimated × Solid Waste Generation Rate (kg/capita/day) × % Population to Generate Waste = Estimated Solid Waste (kg/day)

Table 2- 19: Estimated Quantity of Solid Waste – Kapondo Community Technical College

SN	Facility	Number of People	Generation Rate (kg/capita/day)	% Population to Generate Waste	Estimated Solid Waste (kg/day)
1	Workshops	40	0.35	50%	7.0
2	Offices	20	0.35	50%	3.5
3	Mini-Stores	10	0.35	50%	1.75
4	Technical Drawing Room	20	0.35	50%	3.5
5	Computer Lab	30	0.35	50%	5.25
	Total				20.0

2.4.3.2.8.2 Liquid Wastes

Liquid waste will mainly come from the workshops, offices, mini-stores, and labs. Wastewater will be managed using septic tanks and soakaways.

Formula for liquid waste calculation: Number of People Estimated × Water Consumption Rate (Litres/capita/day) × % Consumed to become wastewater × % Population that will Use Toilets = Estimated Wastewater (m3/day)

Table 2- 20: Estimated Wastewater – Kapondo Community Technical College

SN	Facility	Number of People	Water Consumption (L/capita/day)	% to Wastewater	% Use Toilets	Estimated Wastewater (m3/day)
1	Workshops	40	60	80%	50%	0.96
2	Offices	20	60	80%	50%	0.48
3	Mini-Stores	10	50	80%	50%	0.2
4	Technical Drawing Room	20	50	80%	50%	0.4

5	Computer Lab	30	50	80%	50%	0.6
	Total					2.68

2.4.3.2.9 Solar Energy and Ecology Institute

2.4.3.2.9.1 Solid Wastes

Waste from the restaurant, dormitory, solar house, and fabrication workshop will be generated during the operation phase. Waste collection will be handled through skips placed in accessible areas.

Formula for solid waste calculation: Number of People Estimated × Solid Waste Generation Rate (kg/capita/day) × % Population to Generate Waste = Estimated Solid Waste (kg/day)

Table 2- 21 : Estimated Quantity of Solid Waste – Solar Energy and Ecology Institute

SN	Facility	Number of People	Generation Rate (kg/capita/day)	% Population to Generate Waste	Estimated Solid Waste (kg/day)
1	Restaurant	50	0.35	100%	17.5
2	Dormitory	40	0.35	100%	14.0
3	Solar House	20	0.35	50%	3.5
4	Fabrication Workshop	30	0.35	50%	5.25
	Total				40.25

2.4.3.2.9.2 Liquid Wastes

Liquid waste will come from the restaurant, dormitory, and fabrication workshop, all of which will be directed to septic tanks or soakaways.

Formula for liquid waste calculation: Number of People Estimated × Water Consumption Rate (Litres/capita/day) × % Consumed to become wastewater × % Population that will Use Toilets = Estimated Wastewater (m3/day)

Table 2- 22 :: Estimated Wastewater – Solar Energy and Ecology Institute

SN	Facility	Number of People	Water Consumption (L/capita/day)	% to Wastewater	% Use Toilets	Estimated Wastewater (m3/day)
1	Dining	50	80	80%	100%	3.2
2	Hostel	40	80	80%	100%	2.56
3	Solar House	20	50	80%	50%	0.4
4	Fabrication Workshop	30	50	80%	50%	0.6
	Total					6.76

2.4.3.2.10 Ntchisi Community skills Development Centre

2.4.3.10.1 Solid Wastes

Waste will be generated from the ICT laboratory, ICT classroom, fabrication and welding workshop, classrooms, and motorcycle workshop. Waste collection will be managed using skips placed in key areas within the campus.

Formula for solid waste calculation: Number of People Estimated × Solid Waste Generation Rate (kg/capita/day) × % Population to Generate Waste = Estimated Solid Waste (kg/day).

Table 2- 23: Estimated Quantity of Solid Waste – Ntchisi Community Skills Development Centre

SN	Facility	Number of People	Generation Rate (kg/capita/day)	% Population to Generate Waste	Estimated Solid Waste (kg/day)
1	ICT Laboratory	40	0.35	100%	14.0
2	ICT Classroom	40	0.35	100%	14.0
3	Fabrication Workshop	60	0.35	50%	10.5
4	Motorcycle Workshop	30	0.35	50%	5.25
	Total				43.75

2.4.3.10.2 Liquid Wastes

Liquid waste will be generated mainly from the ICT laboratory, classrooms, and workshop areas, with management through septic tanks.

Formula for liquid waste calculation: Number of People Estimated × Water Consumption Rate (Litres/capita/day) × % Consumed to become wastewater × % Population that will Use Toilets = Estimated Wastewater (m³/day)

Table 2- 24 : Estimated Wastewater – Ntchisi Community Skills Development Centre

SN	Facility	Number of People	Water Consumption (L/capita/day)	% to Wastewater	% Use Toilets	Estimated Wastewater (m ³ /day)
1	ICT Laboratory	40	80	80%	100%	2.56
2	ICT Classroom	40	80	80%	100%	2.56
3	Fabrication Workshop	60	60	80%	50%	1.44
4	Motorcycle Workshop	30	50	80%	50%	0.6
	Total					7.36

2.4.3.2.11 Mthirasembe Community Skills Development Centre

2.4.3.2.11.1 Solid Wastes

Waste will be generated from two workshops, two TFD classrooms, a carpentry workshop, and a girls' hostel. Waste management will be through skips placed in strategic areas.

Formula for solid waste calculation: Number of People Estimated × Solid Waste Generation Rate (kg/capita/day) × % Population to Generate Waste = Estimated Solid Waste (kg/day)

Table 2- 25 : Estimated Quantity of Solid Waste – Mthirasembe Community Skills Development Centre

SN	Facility	Number of People	Generation Rate (kg/capita/day)	% Population to Generate Waste	Estimated Solid Waste (kg/day)
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1	TFD Classrooms	60	0.35	100%	21.0
2	Carpentry Workshop	40	0.35	50%	7.0
3	Girls Hostel	50	0.35	100%	17.5
4	Workshops	40	0.35	50%	7.0
	Total				52.5

2.4.3.2.11.1 Liquid Wastes

Liquid waste will be generated from the hostel and classrooms and will be managed using septic tanks.

Formula for liquid waste calculation: Number of People Estimated \times Water Consumption Rate (Litres/capita/day) \times % Consumed to become wastewater \times % Population that will Use Toilets = Estimated Wastewater (m³/day)

Table 2- 26 : Estimated Wastewater – Mthirasembe Community Skills Development Centre

SN	Facility	Number of People	Water Consumption (L/capita/day)	% to Wastewater	% Use Toilets	Estimated Wastewater (m ³ /day)
1	TFD Classrooms	60	80	80%	100%	3.84
2	Carpentry Workshop	40	60	80%	100%	1.92
3	Girls Hostel	50	80	80%	100%	3.2
4	Workshops	40	60	80%	50%	0.96
	Total					

2.4.3.2.12. Mbulunji Community Skills Development Centre

2.4.3.2.12.1 Solid Wastes

Waste will be generated from the administration block, classroom block, girls' hostel, and workshop. Waste collection will be organized by the college administration with skips strategically placed throughout the site.

Formula for solid waste calculation: Number of People Estimated × Solid Waste Generation Rate (kg/capita/day) × % Population to Generate Waste = Estimated Solid Waste (kg/day)

Table 2- 27 : Estimated Quantity of Solid Waste – Mbulunji Community Skills Development Centre

SN	Facility	Number of People	Generation Rate (kg/capita/day)	% Population to Generate Waste	Estimated Solid Waste (kg/day)
1	Administration Block	20	0.35	100%	7.0
2	Classroom Block	60	0.35	100%	21.0
3	Girls Hostel	50	0.35	100%	17.5
4	Workshop	40	0.35	50%	7.0
	Total				52.5

2.4.3.2.12.2 Liquid Wastes

Liquid waste will be generated from the hostel and classrooms and will be managed through septic systems.

Formula for liquid waste calculation: Number of People Estimated × Water Consumption Rate (Litres/capita/day) × % Consumed to become wastewater × % Population that will Use Toilets = Estimated Wastewater (m3/day)

Table 2- 28 : Estimated Wastewater – Mbulunji Community Skills Development Centre

SN	Facility	Number of People	Water Consumption (L/capita/day)	% to Wastewater	% Use Toilets	Estimated Wastewater (m3/day)
1	Administration Block	20	80	80%	100%	1.28

2	Classroom Block	60	80	80%	100%	4.8
3	Girls Hostel	50	80	80%	100%	3.2
4	Workshop	40	60	80%	50%	0.96
	Total					10.24

2.4.3.2.13 Phwezi Technical College

2.43.2.13.1 Solid Wastes

The college will generate waste from the greenhouse, girls' hostel, and equipment procurement activities. Waste management will be coordinated by the college administration, with skips placed strategically throughout the site.

Formula for solid waste calculation: Number of People Estimated × Solid Waste Generation Rate (kg/capita/day) × % Population to Generate Waste = Estimated Solid Waste (kg/day).

Table 2- 29:: Estimated Quantity of Solid Waste – Phwezi Technical College

SN	Facility	Number of People	Generation Rate (kg/capita/day)	% Population to Generate Waste	Estimated Solid Waste (kg/day)
1	Greenhouse	20	0.35	50%	3.5
2	Girls Hostel	50	0.35	100%	17.5
3	Equipment Procurement	20	0.35	50%	3.5
	Total				24.5

2.4.3.2.13.2 Liquid Wastes

Liquid waste will be generated from the girls' hostel and greenhouse, and it will be managed through a septic system.

Formula for liquid waste calculation: Number of People Estimated × Water Consumption Rate (Litres/capita/day) × % Consumed to become wastewater × % Population that will Use Toilets = Estimated Wastewater (m³/day)

Table 2- 30 :Estimated Wastewater – Phwezi Technical College

SN	Facility	Number of People	Water Consumption (L/capita/day)	% to Wastewater	% Use Toilets	Estimated Wastewater (m ³ /day)
1	Greenhouse	20	40	80%	50%	0.32
2	Girls Hostel	50	80	80%	100%	3.2
3	Equipment Procurement	20	50	80%	50%	0.4
	Total					3.92

2.4.34 Source of Energy, and Water

The project areas will have different sources of energy and water supply for construction purposes and for drinking, in terms of drinking water, the contractor shall have an agreement with the institutions to use the existing potable water for their workers. For construction, the following table 2-31 shows the sources of the water. However, the contractor will need to assess in terms of sustainability of the water sources before any abstraction activity. For electricity, mostly the contractors will apply for temporary connection from ESCOM as shown in the following table 2-31. Where ESCOM will have a shortfall in terms of power, diesel generators will be used.

Table 2- 31: Source of energy during construction and operation phases of the project

District/City	Technical Collage	Source of Water	Source of Energy
Chitipa	Kasama Community Technical College	River Borehole/Piped Water	ESCOM/Diesel Generator
Karonga	MIRACLE Technical Institute	Borehole/Piped Water	ESCOM/Diesel Generator
Rumphi	Mbulunji Community Skills Development Centre	Borehole	ESCOM/Diesel Generator
	Phwezi Technical College	borehole/Piped Water	ESCOM/Diesel Generator

Nkhatabay	SEEI	Borehole	SOLAR
Mzuzu	Sonda CSDC	Borehole/NRWB	ESCOM/Diesel Generator
Balaka	Andiamo College	Borehole/Piped Water	ESCOM/Diesel Generator
Mangochi	Mangochi Community Technical College	Borehole/Piped Water	ESCOM/Diesel Generator
Kasungu	Kasungu TC	River	ESCOM/Diesel Generator
Ntchisi	Ntchisi Technical	Borehole	ESCOM/Diesel Generator
	Mthiransembe CSDC	Borehole	Generator ESCOM
Lilongwe	SOS Village	Borehole Leasehold/Piped Water	ESCOM/Diesel Generator
	MACODA	Lingadzi River Leasehold/Piped Water	ESCOM/Diesel Generator
Mchinji	Kapondo CSDC	Borehole Leasehold	ESCOM/Diesel Generator

Chapter 3. : Legal Framework

This chapter reviews the legal framework relevant to the proposed sub-projects and outlines its potential impacts. It also references key Malawian policies, laws and regulations that are relevant and directly applicable to the environmental and social risks and impacts of the sub-project activities. Additionally, the chapter offers an account of all the regulatory licenses and approvals necessary for the proposed project to align with environmentally sound management practices and comply with pertinent existing legislation.

3.1 Relevant Malawi Policies

Malawi as a signatory to the 1992 Rio Declaration on Environment and Development, and principle 17 of the declaration commits it to undertake environmental impact assessments (as a national instrument for environment management), subject to a decision of a competent authority, on all proposed activities likely to have significant adverse impact on environment. Following the declaration, several policies and legislations on environmental management have been developed of which the overarching legislation is the EMA of 1996. The Malawi guidelines for Environmental Impact Assessment were developed in 1997. The proposed project is responsive to policies and legislation related to water, land, environment, human settlements, gender, and others. By implication, therefore the proposed project is obligated to ensure that the requirements in all relevant sectorial policies and legislations are understood and compiled with to enhance sustainable environmental management and utilisation of other resources. This section, therefore, presents an outline of selected policies that are of direct relevance to the project.

3.1.1 National Environmental Policy, 2004

The SAVE project aligns closely with the guiding principles of the National Environmental Policy (NEP), particularly principle 5.5.b, which emphasizes sustainable management of water and environmental resources. To fulfil this principle, the project will integrate environmental management throughout its planning and implementation phases, assessing potential impacts on local ecosystems and implementing mitigation measures. Active engagement with local communities, NGOs, and the private sector will ensure diverse perspectives are considered, fostering a sense of ownership among stakeholders. Comprehensive environmental impact

assessments (EIAs) will evaluate biophysical, social, and economic effects, ensuring all potential consequences are managed effectively.

The implication to the project is that it will adopt sustainable water management practices to prevent environmental degradation and promote water quality for the community. By addressing social issues proactively, the project will equitably share benefits among all stakeholders, thereby contributing to sustainable development, environmental protection, and social equity

3.1.2 National Environment Action Plan (2002)

The National Environment Action Plan (NEAP) of 2002 is a reference guide for the integration of environmental considerations into development planning. It presents an environmental protection and management plan that defines the roles and responsibilities of various actors (including local communities, government, and line ministries) in environmental management. To protect the environment from further degradation, the NEAP sets out the actions that need to be considered, to guarantee adequate environmental protection. The NEAP in section 3.2 explains that the nexus of population growth, poverty and illiteracy has led to a sub-optimal and unsustainable resource utilisation. The poor, being the most affected, have heavily discounted future income and pursue sub-optimal social consumption decisions, leading to environmental degradation. This nexus and its negative implications on the development of the 18 countries, represents enormous challenges, which the government is trying to address. The proposed project provides a response to these challenges by providing a means for poverty alleviation through various options such as employment. Additionally, this report has been guided by the provisions stipulated in the NEAP, to promote environment management of the project.

3.1.3 The Malawi National Land Policy (2002)

This policy addresses the need for improved land administration, environmental conservation, and inter-sectoral coordination. These elements are crucial for infrastructure projects like road construction, as they provide a framework for land acquisition, compensation, and environmental considerations, ensuring that such projects align with national development goals and land use planning objectives.

Section 4.15 discusses the government's authority to acquire private land for public use or redevelopment, ensuring that such provisions are stipulated to prevent abuses of this power. Section 4.16 elaborates on the government's obligation to protect legally acquired property rights and the entitlement of landholders to compensation if the government acquires their property for public use. The section stresses the importance of fair and adequate compensation. Section 5.1 covers the comprehensive scope of land administration, including land rights delivery, land use planning, survey and demarcation, registration and maintenance of land information, and environmental impact monitoring of land-based activities. Sections 9.9 and 9.10 provide

guidelines for managing sensitive ecosystems, such as wetlands, by requiring environmental impact assessments before permitting development activities.

Based on this Policy, the Project should adhere to rigorous standards for land acquisition, ensuring fair compensation and protection of property rights as outlined in Sections 4.15 and 4.16. It must also incorporate comprehensive land administration measures from Section 5.1, including accurate surveying, demarcation, and registration, alongside robust environmental impact assessments for activities in sensitive ecosystems per Sections 9.9 and 9.10. This adherence will guarantee that the project aligns with national development goals while safeguarding natural resources and community interests, particularly during the construction works.

3.1.4 The National Water Policy, (2005)

The SAVE project must register any water abstraction points with the NWRA, ensuring adherence to national water governance and management standards. Under the 'Polluter-Pays' Principle, the project is obligated to prevent and mitigate water pollution throughout both construction and operational phases, thereby protecting local water quality. Moreover, prior to applying for a water use and abstraction license, the project must prepare and obtain approval for an Environmental and Social Management Plan (ESMP), demonstrating that water resource protection measures are consistent with the provisions of the National Water Policy (2022).

Section 1.3 of the National Water Policy provides an enabling framework for integrated water resources management in Malawi. The section points that after realising the challenges, threats and opportunities associated with implementation of activities in water and sanitation sector, the government of Malawi through the Ministry responsible for water development established the policy tailored at tackling any issues in the sector in an integrated manner, through the involvement of all concerned stakeholders including communities. 19 The policy comprehensively covers areas of water resource management and development, water quality and pollution control, and water utilization. In section 3.4.15 it is set that all water facilities shall be registered using a numbering system developed and adopted by the Ministry responsible for water affairs. The proposed project shall ensure that the water which will be abstracted from the lake is duly registered by the National Water Resources Authority. In section 3.4.9 the policy stresses that pollution control of water resources shall adopt the 'Polluter-Pays' Principle in order to ensure water user responsibility. Section 5 of the policy also points that surface and ground water quality has been negatively affected by environmental degradation and industrial practices among other factors. The National Water Policy is applicable to the project because it will draw water from underground sources. Permits for water extraction are not part of the ESMP but require the approved ESMP as part of the application. Once the ESMP has been approved, the project will apply for the water use and abstraction license. The relevance of this policy to the proposed project is that it provides an enabling environment to ensure that water resources are protected from pollution during the construction works as well as during the operation phase.

3.1.5 The National Gender Policy, (2015)

Gender mainstreaming into social economic development plans is one of the enablers for sustainable development worldwide. The Malawi Growth and Development Strategy III (MGDS III) and the Sustainable Development Goals (SDGs) recognize the importance of gender and women empowerment in socio-economic development. As stipulated in Section 1.3, the national Gender policy provides guidelines for mainstreaming gender in various sectors of the economy to reduce gender inequalities and enhance participation of women, men and youth for sustainable and equitable development, as well as poverty eradication in the country. According to Section 3.6 of the policy, persistent gender inequalities and under-representation of women in decision making positions at all levels, necessitated development and implementation of the gender policy in order to address such gender imbalances and other related issues. The proposed project will economically empower women so as to increase household income, resulting in poverty reduction. Increasing women's labour force, participation, productivity, and earnings will have a direct impact on poverty reduction and will stimulate economic growth and development. The project will also involve the youth during construction and operation phase of the project. Section 3.7 of the policy recognises that Gender Based Violence (GBV), especially violence against women, girls and the vulnerable groups, is a severe impediment to social well-being and poverty reduction. Eradication of Gender Based Violence is therefore critical for the attainment of national development. The proposed project will ensure and shall put plans that will not allow GBV at the project as a work place area. The implementation of the project will therefore consider 20 mainstreaming gender related issues, thereby ensuring that beneficial impacts and adverse impacts affecting women and girls are appropriately enhanced and mitigated against, respectively.

3.1.6 The National Climate Change Policy, (2016).

The Malawi National Climate Change Policy was drafted by the government in recognition of the country's high susceptibility to the climate change effects. It is aimed at promoting climate change adaptation and mitigation for climate change livelihoods, with consideration of economic development that significantly reduces environmental risks and ecological scarcities. Among the specific objectives of the policy, management of impacts of climate change through interventions that build and sustain the social and ecological resilience of Malawians. The Malawi National Climate Change Policy also seeks to promote the stabilisation of greenhouse gas concentrations in the atmosphere, to a level that would prevent dangerous human-induced interference with the climate; while ensuring sustainable social, economic and environmental development. The implication to the proposed project is that it has been designed and will have to implement its activities in line with the requirements of the policy.

3.1.7 The National Energy Policy (2008)

The Government of Malawi (GoM) realises that industrial and socio-economic development of the country depends on access to modern, reliable and sufficient energy. It highlights challenges faced in the energy sector, such as unreliable power supply, low generation capacity and over dependence on biomass. Policy priority area number 8 stresses the need for Demand Side Management (DSM), which is an important means of improving energy efficiency at the end-use level of the energy supply chain. Currently in Malawi, there is a lot of wastage of electrical energy and biomass in end-use activities such as cooking, water and space heating, and lighting occasioned by use of inefficient appliances and devices. This priority area focuses on savings in electricity and biomass consumption. The proposed project will install energy efficient measures to help reduce its electricity consumption hence reducing its bills and stress on overburdened utility systems. The proposed project will discourage the use of biomass energy e.g. charcoal and firewood which is the main driver of deforestation in Malawi. Where it is not possible to do this, the project will promote the use of clean energy technologies such as cook stoves. Charcoal business and use in any operation will be strictly prohibited.

3.1.8 The National Sanitation Policy (2012)

The National Sanitation Policy provides a broad framework and policy guidelines to enhance and support sanitation coverage in the country through formulation of sanitation strategies, plans and programs at all levels for improving the quality of life of the people of Malawi and the physical environment necessary for health life. The primary focus of the policy is on the safe disposal of excreta away from the dwelling units and workplaces by using sanitary latrines and includes creation of an open defecation free environment along with the safe disposal of liquid and solid wastes and the promotion of health and hygiene practices in the country. 21 For any social and economic development to take place, adequate sanitation in conjunction with good hygiene and safe water are essential. Lack of clean water and poor sanitation causes many diseases and the spread of diseases. It is estimated that inadequate sanitation is responsible for 4.0% of deaths and 5.7% of disease burden worldwide. A number of studies have also shown that improvements in drinking water and sanitation (WASH) lead to decreased risks of waterborne diseases such as diarrhoea. Such improvements might include for example use of water filters, provision of high-quality piped water and sewer connections. The proposed project will, as such, ensure that liquid and solid waste management encourages the reduction, recycling and reuse of waste before final disposal hence complying with the provisions of the policy.

3.1.9 National HIV and AIDS Policy (2022-2027)

The goal of the National HIV and AIDS Policy (2022–2027), as articulated in Section 1.3, is to prevent new HIV infections, reduce vulnerability to HIV, improve access to treatment, care and support for people living with HIV and AIDS, and mitigate the socio-economic impacts of the epidemic on individuals, families, communities, and the nation at large. The Policy places a strong emphasis on human rights, non-discrimination, and the integration of HIV responses across all sectors, including the workplace.

Chapter 7 of the Policy, which focuses on HIV and AIDS in the workplace, recognizes the growing impact of HIV on labor productivity through increased absenteeism, illness, and premature death. It highlights harmful practices such as pre-employment HIV testing, discrimination in the provision of benefits, and job termination based on HIV status, all of which the policy condemns.

Implications for the Proposed Project

In line with the 2022 Policy, the proposed project must take deliberate actions to promote a non-discriminatory, supportive, and rights-based workplace environment. This includes the development and implementation of an HIV and AIDS workplace policy for both construction and operational phases. The project must ensure:

- No mandatory HIV testing as a condition for employment.
- No discrimination in hiring, promotion, or access to benefits based on HIV status.
- Confidentiality of any disclosed HIV status, only to be shared with written consent from the employee.
- Access to prevention tools, including consistent availability of condoms at construction sites and institutional facilities.
- Awareness and sensitization campaigns for workers, students, and surrounding communities to reduce stigma, encourage voluntary testing, and promote safe practices.
- Capacity building through student education on HIV and AIDS, integrated into institutional programs during the operational phase.

3.1.10 National Education Standards (2015)

National Education Standards (2015) sets down expectations of education quality in important aspects of school education in Malawi. The Standards encompass key features of effective leadership, management and teaching and identify expected outcomes for learners. The standards are aligned to the Malawi Growth and Development Strategy II (MGDS II) and the National Education Sector Plan 2008 - 2017. There are twenty-six education standards organised in three groups: six standards for the learners' outcomes, eight standards of teaching process and finally eight standards of leadership and management process. For instance, on key aspects of teaching process, the standards reflect the key skills involved in teaching. One standard from this group, emphasizes on teachers with good professional, subject and curriculum knowledge. This is what the project will strive to achieve by ensuring that the tutors who will be teaching at these institutions are subject matter specialists.

3.1.10 National Education Policy (2013)

The policy recognises the commitment that the government has to the education sector which is identified as one of the nine priorities among priorities in the nation's development agenda. Despite the high proportion of the government budget allocation to education, the demands of expansion and quality education leaves the sector seriously under-funded. The main purpose of the policy is to provide a coordinated approach to the development of the education system for relevant knowledge, skills, competencies and values necessary for the socio-economic development of the nation. Two of the five priority areas of the policy are; improve quality and

equitably accessed technical, entrepreneurial and vocational education and training (TEVET); and also improve quality and equitably accessed higher education. Hence, the proposed project is complementing to government of Malawi agenda to increase access to tertiary education in Malawi.

3.1.11 TEVET Policy (2017)

The policy is intended to promote the development of formal and informal skills in the public and private sectors in rural and urban areas. The policy further intends to develop an efficient and effective TEVET system that provides the economy with skilled and competitive workforce. One of the policy outcomes is increased skills among the workforce in all sectors of Malawi economy. The policy also strives to ensure quality in technical education which is monitored and enforced by TEVETA. The policy clearly stipulates that TEVET Authority will be a regulatory and facilitation body in the implementation of TEVET programmes. TEVET Authority will also be responsible for provision of oversight on quality assurance, assessment and certification of TEVET programmes. The college being under Ministry of Labour will be constantly monitored by TEVETA to ensure that there is quality in terms of program to be offered. The policy also aims at ensuring that technology in training institutions matches with available technology in the labour market. The strategies suggested by the policy include procurement of 23 modern training tools and equipment, attach instructors to industry and linking training institutions to industry. The proposed project will contribute to this policy through procurement of the modern equipment to be used for training purposes, and training the tutors to have skills to offer to the students

3.1.12 National Forestry Policy (2016)

The National Forestry Policy of 2016 in Malawi addresses shortcomings of the outdated Forestry Act of 1942 (Cap 63.01), which previously did not accommodate sustainable management of forests on customary land or define community rights to use indigenous trees sustainably. This policy shift recognizes that individuals and communities should have clearer rights and responsibilities regarding tree ownership and forest management on customary lands. Additionally, the policy acknowledges the need for greater private-sector involvement in forest conservation, which was not included in the older framework.

The policy implies to the SAVE project that it is a requirement to involve and consult with local communities regarding any impact on indigenous trees or forests on customary land. Compliance with the 2016 policy ensures that forest resources affected by the project are managed sustainably, in line with community rights and conservation goals. The policy's focus on sustainable forest use could necessitate reforestation or compensatory planting for trees impacted during construction and collaboration with local stakeholders to support ongoing conservation efforts.

The goal of National Forestry Policy is to sustain the contribution of the national forest resources to enhance quality of life in the country by conserving the resources for the benefit of the nation. There are three general objectives for the policy and these are:

- Promoting regulated and monitored access to forest resources and products.
- Contributing towards improving the quality of life in rural communities and providing a stable local economy in order to reduce the degenerative impact on the environment that often accompanies poverty.
- Promoting incentives for community-based forest conservation and sustainable utilisation in order to alleviate poverty. This includes social forestry and allowing all communities to grow trees on their gardens and farms.

The Department of Forestry has identified all catchment areas, hill slopes and other environmentally fragile areas for permanent forest cover and protection. The department also works on improvement on control, protection and management of woodlands on customary land, forest reserves and protected hill slopes. In addition, the Department of Forestry works with local communities and non-governmental organisations on various afforestation programmes covering bare area, fragile areas in the country. The policy will guide the tree planting interventions under the project and parties involved inclusive the contractor.

3.1.13 National Equalization of Opportunities for Persons with Disabilities Policy (2006)

The Policy promotes the rights of people with disabilities and integrates them to enable them to play a full and participatory role in society. Section 2, subsections 2.3 and 2.4.8 of the policy state that people with disabilities are most affected by poor infrastructure, such as buildings not designed to accommodate or meet their special needs. Similarly, Subsection 2.45 of the policy states that people with disabilities have restricted employment opportunities, mainly due to discrimination, inadequate education, job experience, and confidence. The policy on the proposed project implies that the contractor will be required to provide job opportunities to people with disabilities to ensure that they are also economically empowered

3.1.14 Malawi Vision 2063

The Vision articulates the national goals that will facilitate the realization of the aspirations of the people of Malawi. These are built around values of national consciousness such as unity, patriotism, hard-work, integrity, self-help, and an aversion for hand-outs. Environmental sustainability has been identified as one of the enablers in attainment of the vision 2063. Sustainable management of the environment such as adequate waste disposal, treatment, and recycling; air and water pollution management; and prudent water resource management are paramount for the sustainable development of the country. The project at hand shall make sure environmentally sustainable practices are adopted in all project activities to help maximize resource efficiency.

3.2 Relevant Malawi Legislative Framework

3.2.1 Constitution of the Republic of Malawi (1995)

The constitution of the Republic of Malawi is supreme over any legal policy or Act in Malawi. Any Act of Government or any law that is inconsistent with provisions of the constitution shall be invalid to the extent of such inconsistency (section 5). As such, the reviewed policies and legislations, relevant to the project, have to be in line with the constitution.

Section 12 of the constitution provides the fundamental principles on which the constitution was founded, and part (iii) encourages accountability and transparent decision-making. Section 12, part (iii) states: *“the authority to exercise power of State is conditional upon the sustained trust of the people of Malawi that trust can only be maintained through open, accountable and transparent government and informed democratic choices”*. The principle is based on the premise that while society appoints authorities, they return the right to have an input in decision-making and enforcement processes; and they expect transparency in government decision making. In line with 24 this principle, the proposed project cannot assume that it has power over the communities and other institutions in the project area of influence, knowing that it will be accountable to its actions. Part (d) of Section 13 addresses the need for managing environment and sustainable development of natural resources to prevent degradation, provide a healthy living and working environment for the people of Malawi, accord full recognition to the rights of future generations; and to conserve and enhance the biological diversity of Malawi.

The proposed project is therefore complying with the “section” by conducting an Environmental and Social Impact Assessment before commencement of project activities. The proposed project has to promote gender equality and human rights. Under Section 12 (e), is stated that it is the responsibility of the state to achieve gender equality for women through full participation of women in all spheres of the Malawian society, on the basis of equality with men; Implementation of principles of non-discrimination of policies to address social issues such as domestic violence, security of the person, maternal benefits, economic exploitation and rights to property. Under Section 13(d), the Constitution of the Republic of Malawi provides for responsible management of the environment and paves way for the enforcement of the National Environment Policy. The constitution accords full recognition to the rights of future generations by advocating environmental protection and sustainable development of natural resources. It also calls for the prevention of environmental degradation. The proposed project will have to ensure that activities of the project promote environmental protection and sustainable development of natural resources.

3.2.2 Basic Education Act (2020)

The Malawi Basic Education Act (2020), particularly in relation to the promotion of equal educational opportunities and the development of learners' skills. Section 5: Promotion of Education outlines the primary goals of education in Malawi, which include promoting equality

of educational opportunities for all Malawians and developing the knowledge, understanding, and skills needed for success in a modern, changing world. Subsection (1) emphasizes the importance of identifying and removing barriers to educational achievement, while Subsection (2) focuses on preparing learners to compete successfully on a global scale. The proposed project directly contributes to these goals by increasing school intake and providing better learning experiences, helping to remove barriers and ensure that education is more accessible to a wider range of students, particularly from marginalized communities. Additionally, the improved facilities will foster the development of the necessary skills for learners to thrive in a dynamic, global environment.

Section 6: Accessibility and Equity in Education ensures that education is both accessible and equitable, providing opportunities for learners from all backgrounds, including those with disabilities or from disadvantaged communities. The proposed project will help promote access and equity by improving educational infrastructure, such as classrooms, hostels, and vocational training spaces, thereby enabling more students to access quality education, especially those who have previously faced barriers. Section 9: Organization and Management of Educational Institutions focuses on improving the governance, organization, and management of educational institutions. This section stresses the importance of effective management and infrastructure to ensure that schools operate smoothly and provide a conducive learning environment. The proposed project supports this section by enhancing the infrastructure of educational institutions, including the construction of new facilities and vocational training areas. These improvements will not only provide a better learning environment but also contribute to more effective governance and management within the schools and colleges involved.

The implication of the act for the proposed project is that it supports the national goal of increasing access to quality education, promoting equality, and improving learning environments and provide equal opportunities for all Malawians. ensuring education is accessible to marginalized groups, including those with disabilities.

3.2.3 Land laws

3.2.3.1 Land Act, 2016

The Act was enacted to provide for land administration and management in Malawi. The Act groups land into two categories, “private land” and “public land”. Public land comprises Government land and unallocated customary land. The Land Act also makes provisions for land acquisition, including compensating people affected by any project. Section 13 sub sections (1), (2), and (3) states that “any person who, because of any acquisition, suffers any disturbance or loss or damage to any interest which he may have or immediately before the occurrence of any of the events referred to in this section, may have had in such land will be paid such compensation for such disturbance, loss or damage as is reasonable.”

3.2.3.2 Land (Amendment) Act, 2022

The Act categorizes Land as public, customary, or private. “Public land” means land held in trust for the people of Malawi and managed by the Government. “Private land” means all land owned, held, or occupied under a freehold title, leasehold title or as a customary estate or registered as private land under the Registered Land Act. “Customary land” means land held, occupied, and used following customary law and practice prevailing in the traditional land management area. Customary Land Act, 2016 In this Act, Customary Land is defined as all land held, occupied, or used under customary law but does not include public land. Section 17 Subsection 4 says, “Where any portion of the customary land to be transferred has been allocated to a person or a group of persons under a customary estate or a derivative right to use the land, the land committee will inform those persons or, where any one of those persons is absent, a member of the family occupying or using the land with that person, of the contents of the notice”. Section 17 subsection 8 states that customary land will be transferred subject to payment of appropriate compensation as assessed by a registered valuer and agreed upon by the land committee and the Commissioner. Section 20 (1) (c) says that a land committee will allocate customary estate to a partnership or corporate body, most of whose members or shareholders are citizens of Malawi.

3.2.3.3 Customary Land (Amendment) Act, 2022

Sections 4 and 6 of the Act state that a land committee and a Traditional Authority will manage the customary land within their jurisdiction following the prevailing customary law, on trust, as if the committee or the Traditional Authority were a trustee. The residents in the area were beneficiaries under a trust of the customary land.

3.2.3.4 Land Acquisition and Compensation (Amendment) Act, 2017

The Act powers the Minister or local government authority to acquire land for public utility, either compulsorily or by agreement, and pay appropriate compensation. Section 4 of the Act gives powers to the acquiring authority to enter, dig, clear, set out and mark the boundaries of the proposed land, do all other acts necessary to ascertain whether the land is or may be suitable, provided such entry is preceded by a notice to the occupier seven days before; and the acquiring authority is ready to pay for the damage done by the persons entering such land. Section 9, states that the acquiring authority will pay appropriate compensation and be in one lump sum. Section 10 lists the grounds for compensation as loss of occupational rights, loss of land, loss of structure, loss of business, relocation costs, loss of goodwill, costs of professional expenses, injurious affection, nuisance, loss or reduction of tenure or disturbance. The land belongs to the institutions, hence there will be no compensation.

3.2.4 Environment Management Act (2017)

The Environment Management Act (EMA) is an Act that makes provision for the protection and management of the environment, the conservation and sustainable utilisation of natural resources and for matters connected therewith and incidental thereto. Section 3(1) states that 3 (1) every person shall take all necessary and appropriate measures to protect and manage the environment,

to conserve natural resources and to promote sustainable utilisation of natural resources in 25 accordance with this Act and any other written law or policy relating to the protection and management of the environment or the conservation and sustainable utilisation of natural resources. To achieve this, the Act in section 7(1) provides for the establishment of the Malawi Environment Protection Authority (MEPA) which is the principal agency for the protection and management of the environment and sustainable utilisation of natural resources. Part IV of the Act stipulates provisions for ESIA as it is stated in section 31 (1) that the Minister may, on the recommendation of the authority, specify, by notice published in the Gazette, the type and size of a project which shall not be implemented unless an ESIA is carried out.

The section further points that a person shall not undertake any project for which an ESIA is required without the written approval of the authority, and except in accordance with any conditions imposed in that approval. Implication of the Act on the proposed project is that the project proponent has to obtain an approval from MEPA before any other licensing authority grants a permit or licence for the execution of a project.

3.2.5 Physical Planning Act (2013)

This is an Act that makes provisions for physical planning and the orderly and progressive development of land in both urban and rural areas. It also makes provisions to preserve and improve amenities thereof, granting of permission to develop land and for other powers of control over the use of land, and for matters connected therewith and incidental thereto.

The Physical Planning Act makes provisions for the appointment of planning committees as is stated in Section 19 (1) that “*A local government authority shall appoint a planning committee for its area of jurisdiction which shall be the responsible planning authority for the area and shall exercise any duties as are conferred by this Act*”. This provision clearly gives the District Council the mandate to oversee any physical planning developments within the project area. Duties and powers of responsible authority with regard to plans are provided in Section 22 (1) that states “*The responsible authority shall furnish the Minister with such particulars and information as the Minister may require concerning the preparation and content of any plan on the present and future planning needs and the probable direction and nature of development of any area in respect of which a plan may be prepared*”. The local councils are as such responsible for formulation of local physical development plans that are approved by the Minister or Commissioner and Section 33 (1) provides the types of local physical development plans as follows:

- a) An urban structure plan, which shall be a land use plan for the whole of an urban area.*
- b) An urban layout plan, which shall be a detailed land use plan of a part of an urban area in which significant physical development is planned or likely to or has begun to take place or there is need for development or redevelopment, or revision or upgrading;*

c) An urban civic plan, which shall be a more elaborate design of a special area or areas of an urban area showing layout of buildings, car parking lots and landscaping among other details; and

d) A subject physical development plan, which shall be a plan concerned with a particular subject matter.

Sections 44 and 45 mandate any developer to get development permissions and also define the types of permissions that can be obtained. Section 46 (1) (a) gives provisions for an application for development permission that can be made to:

i. A local government authority, in case of any development within the area of its jurisdiction.

ii. The Commissioner, in every other case.

Part (b) of the section requires that an application be made in a prescribed form; and part (c) requires that the application be accompanied by a prescribed fee payable to Government and shall include such other information as the local government authority or the Commissioner may require. The implication of this Act is that the proposed project will therefore have to be approved by the District Council Planning Committee. The District Council Physical planning development was already consulted and briefed regarding to the development activity.

3.2.51 Physical Planning (Amendment) Act (2022)

The Physical Planning Act governs physical planning and the orderly development of land in Malawi's urban and rural areas. It aims to preserve and enhance the amenities of these areas while regulating land use and development. The Act provides guidelines for obtaining development permits and empowers authorities to control land use effectively. Section 8 of the Act establishes the Physical Planning Council, which has overarching powers and responsibilities for physical planning across Malawi. Section 19 mandates local government authorities to appoint a planning committee within their jurisdiction. This committee serves as the responsible planning authority, exercising duties conferred by the Act. A joint planning committee may be appointed to oversee the project if a proposed development spans the boundaries of two or more local government areas. Section 44 outlines the types and classes of development considered permitted under the Act, as specified in the First Permitted Schedule. One of these permitted developments includes changes in land use within the same class of uses, provided conditions set by the responsible authority are met. In road construction, constructing a road within a public land area designated as a road reserve is generally permitted since road reserves are expressly set aside for infrastructure development and utilities.

Implications for the Land Laws

The project sites will not only be using public land for the SAVE project but also portions of customary land. As such the proposed project does not expect to have any land ownership issues and it is important for the project to ensure that all the facilities are constructed within the land boundary and that it must align with these sections by conducting an EIA to identify and mitigate environmental risks associated with the construction and to ensure that the project does not

harm critical habitats and aligns with sustainable land-use practices, supporting environmental conservation

3.2.6 The Water Resources Act (2013)

Under the Act, the right to use public water may be limited if the use may cause damage to natural resources of the area or in the vicinity. The Act defines pollution or fouling of public water to mean the discharge into, or in the vicinity of public water, or in a place where public water is likely to flow, of any matter or substance likely to cause injury whether directly to public health, livestock, animal life, fish, crops orchards or gardens which such water is used or which occasions, or which is likely to occasion, a nuisance. 27 The Act establishes that all water resources are vested in the State and that beds and banks of watercourses and lakes, and the adjacent strips are public land. A National Water Resources Authority was established to manage these resources under the direction of a board appointed by the Minister. Abstraction and use of water from a water resource would require a license granted by the Authority. When necessary, this license could be combined with a permit. Permits would be required for drilling boreholes to explore groundwater and for discharging effluents. The Water Resources Act also authorises the minister to prescribe standards for effluent quality and to set charges for water use and effluent discharges and give state schemes priority for the use of water resources. The implication of this Act on the proposed projects is that they should avoid water degradation and depletion in the construction of the building structures.

3.2.7 Water Works Act (1995)

The Water Works Act provides for the establishment of Water Boards and water-areas; and for the administration of such water-areas as well as for the development, operation and maintenance of waterworks and water-borne sewerage sanitation system in Malawi; and for matters incidental thereto or connected therewith. Part II of the Act gives authority for the setting up of Water Boards and stipulates the powers and duties as follows:

“3. -(1) There is hereby established for each water-area (in this Act otherwise referred to as the Water Boards "water-area") a Water Board (in this Act otherwise referred to as the "Board") as specified in the Schedule.” (3) The powers of the Board shall include power to levy and enforce payment of rates in accordance with this Act, and power to engage in research or investigation in connection with water supplies and water-borne sewerage sanitation either alone or by arrangement or in conjunction with other persons.

Part V of the Act also stipulates a provision for the Water Boards to operate public sewers and sewerage disposal works as follows:

26.-(1) The Board may, within its water-area and also, subject or to the prior Provision of approval of the Minister; without its water-area - public sewers and sewerage (a) construct and maintain a public sewer-disposal work (i) in, under or over any street, or under any cellar or

vault below any street; and (ii) in, or over any land forming part of a street, after giving reasonable notice to every owner and occupier of that land.

The Act in Section 29(1) prohibits any person to throw, empty, or turn, or suffer or permit to be thrown or emptied not to be passed or to pass, into any public sewer, or into or any drain or private sewer communicating into sewers or with a public sewer. The implication of the Act to the project is that the developer is within the Central Region Water Board's jurisdiction. However, there is no water connection system from the water board. In this regard, the project is planning to have a standalone water connection system.

3.2.8 The Forestry Act, 1997 and Forestry (Amendment) Act, 2020

The Forestry policy is embodied in the Forestry Act of 1997 and its subsequent amendments, particularly the Forestry (Amendment) Act, 2020. Relevant provisions of these Acts for the proposed construction project include:

- a) To identify and manage areas of permanent forest cover to maintain environmental stability, prevent resource degradation, and enhance social and economic benefits.
- b) To promote participatory forestry and empower communities through the management and conservation of trees and forests on customary and public lands.
- c) To ensure sustainable utilization of forest resources, including timber, fuelwood, and other forest products.
- d) To protect fragile areas such as steep slopes, riverbanks, and water catchment zones, while conserving biodiversity.
- e) e) To regulate activities impacting forest resources, including licensing for utilization, conservation efforts, and penalties for non-compliance.

Implications for the Proposed Project

The proposed construction works for the project, likely to involve the clearing of land and increased human activity, poses risks of deforestation, biodiversity loss, and potential resource depletion in nearby forest areas. The influx of construction workers and business-seekers may exacerbate pressure on local forest resources. Under the Forestry Act, the SAVE project must comply with several key regulations, such as obtaining necessary permits for land clearing or tree removal, adhering to biodiversity conservation statutes, and implementing mitigation measures, such as reforestation or ecological restoration.

Potential Consequences of Non-Compliance

Failure to adhere to the Act's provisions may lead to legal actions, including penalties, fines, or delays in project implementation. Compliance not only minimizes environmental harm but also fosters community support, legal approval, and sustainability in construction efforts

3.2.9 Local Government (Amendment) Act (2017)

This is an Act relating to local government and provides for matters connected therewith or incidental thereto. Part II, Section 6(1) of the Act mandates all local authorities to regulate

planning and development within their jurisdiction and empowers them to have by-laws for the good governance of the local government area. Regarding by-laws, section 103 states the following:

“The Assembly may make by-laws for the good rule and By-laws government of the whole 'or any part of the local government of area or, as the case may be for the prevention and suppression of nuisances therein and for any other purpose.”

This Act also devolves decision-making authority from central government to local authorities, through the process of decentralisation. The Act has concrete provisions for participation of communities in development planning, implementation and monitoring. The proposed project will adhere to the requirements of the Act by fully involving the District Council and ensuring that any by-laws set by the council are followed throughout.

3.2.10 The Occupation Safety Health and Welfare Act (1997)

The Occupation Safety Health and Welfare Act (OSHWA) is an Act to make provision for the regulation of the conditions of employment in workplaces as regards the safety, health and welfare of persons employed therein; for the inspection of certain plant and machinery, and the prevention and regulation of accidents occurring to persons employed or authorised to go into the workplaces; and to provide for matters connected with or incidental to the foregoing the provisions for a safe working environment for the people of Malawi.

Part II of the OSHWA gives provisions on registration of a workplace as indicated in Section 6 that the Director shall keep a register of workplaces in which he shall cause to be entered such particulars in relation to every workplace required to be registered under this Act as he may consider necessary or desirable. Section 7(1) continues to stress that premises are not to be used as workplaces unless registered. Part III of the OSHWA stipulates provisions on the duties and responsibilities of the developer as it is stated as follows: *“13. Duties of employers*

(1) It shall be the duty of every employer to ensure the safety, health and welfare at work of all his employees.

(2) Without prejudice to the generality of an employer’s duty under subsection (1), the matters to which that duty extends includes in particular—

- a) the provision and maintenance of plant and systems of work that are safe and without risks to health;*
- b) arrangements for ensuring safety and absence of risks to health in connection with the use, handling, storage and transportation of articles and substances;*
- c) the provision of information, instruction, training and supervision in accordance with section 65 to ensure the safety and health at work of his employees;*
- d) as regards any place of work under the employer’s control, the provision of maintenance in a manner that is safe and without risks to health, and the provision and maintenance of means of access to and egress from it that are safe*

and without such risks; e) the provision and maintenance of a working environment for his employees that is safe, without risks to health, and adequate as regards facilities and arrangements for their welfare at work.”

It is envisaged that various occupational safety and health (OSH) issues will be encountered during the implementation of the proposed project. Hence, it is imperative for the developer to ensure that OSH requirements are adhered to all times. Therefore, this report will have to outline the interventions that will be required for implementation and monitoring during the lifespan and the project.

3.2.11 The Employment Act, (2000)

The employment Act of 2000 reinforces and regulates minimum standards of employment with the purpose of ensuring equity necessary for enhancing industrial peace, accelerated economic growth and social justice; and for matters connected therewith and incidental thereto. Part II of the Act states fundamental principles guiding the act and these include Section 4(1) - Prohibition against forced labour Section 5(1) - Anti-discrimination 30 Section 6(1) - Equal pay Section 7 - Remedies for infringement of fundamental rights Part IV of the Act prevents employment of young persons and the restrictions are provided in detail in sections 21(1) and 22(1) as follows:

“21. (1) subject to subsection (2), no person under the age of fourteen shall be employed or work in any public or private agricultural, industrial or non-industrial undertaking or any branch thereof. 22. (1) No person between the age of fourteen and eighteen years shall work or be employed in any occupation or activity that is likely to be - (Hazardous work) (a) harmful to the health, safety, education, morals or development of such a person; or (b) prejudicial to his attendance at school or any other vocational or training programme.” Therefore, when employing people for the implementation of the project activities, the developer will have to ensure that that the provisions of this Act are complied with.

3.2.12 Gender Equality Act, (2013)

The Gender Equality Acts purpose is to act and address the inequalities that exist between men and women in many aspects of daily life in Malawi. The Act seeks to promote gender equality, equal integration, influence, empowerment, dignity and opportunities for men and women in all functions of society; to prohibit and provide redress for sex discrimination, harmful practices and sexual harassment; to provide public awareness on promotion of gender equality. The Act applies to all persons and to all matters. This means it will apply to private and public institutions, including religious settings and chiefs. It also applies to the government. It affects all aspects of life in Malawi. The Act in Part 2 prohibits of sexual discrimination and harmful social or cultural practices; Section 7 calls for all workplace policy to ensure that sexual harassment is avoided. Section 14 (1) & (2) indicates that every person has the right to access education and training including vocational guidance at all levels except in the cases of special need, the government

shall take active measures to ensure that educational institutions provide equal access to girls and boys and women and men, to: (a) The same curricula; (b) The same examinations; (c) Teaching staff with qualifications of the same standard; (d) Institutional premises and equipment of the same quality, irrespective of sex of learners at the same level; or (e) Provision of sanitary facilities that consider the specific needs of the sex of the learners.

The proposed project shall support interventions aimed to expand secondary education opportunities especially for the poor and disadvantaged learners in line with government strategy of increasing access to and equity to secondary education. The proposed project is also obligated to ensure the principles set in this Act are included in all its activities specifically in relation to employment and providing a conducive environment without sexual harassment and any other types of gender discrimination.

3.2.13 Electricity (Amendment) Act, (2016)

The Act in Section 1 makes provisions for the regulation of the generation, transmission, distribution, sale, importation and exportation, use and safety of electricity and for matters connected therewith or incidental thereto. Part IV of the Act gives provisions regarding distribution of electricity and Section 31 states that every distributor shall supply electricity to every consumer who is in a position to make satisfactory arrangements for payment under a contract of supply with that operator. Section 33 of the act states that a consumer shall not be entitled to a standby supply of electricity from the distributor in respect of any premises unless that consumer has agreed to pay and has given security to pay, such minimum annual sum as will give to the distributor a reasonable return. Section 36 stipulates the following:

“A customer shall ensure that the operations of his/her system do not interfere with the smooth and safe operation of the Licensee’s system to which he/she is connected.”

The project sites are already connected with ESCOM power. However, the capacity of the existing transformer is low and it needs to be upgraded. The project intends to upgrade the existing power system in collaboration with ESCOM.

3.2.14 HIV and AIDS (Prevention and Management) Act, 2018

The HIV and AIDS (Prevention and Management) Act makes provision for the prevention and management of HIV and AIDS; provisions for the rights and obligations of persons living with HIV or affected by HIV and AIDS; provisions for the establishment of the National AIDS Commission; and provisions for matters incidental thereto or connected therewith. Part 4, Section 6 (1) states that discrimination on a basis related to HIV or AIDS is prohibited. Part 5, Section 9 (1) states that a person living with HIV has the right to privacy and confidentiality with regard to information concerning their status.

Part 8 of this Act gives provisions to employers by stipulating requirements in several sections quoted as follows:

- Section 26 states that an employer shall not require any person to undergo HIV testing as a pre-condition for recruitment.
- Section 27 (1) states that an employer shall not terminate the employment of an employee solely on the ground that the employee is living with HIV or is perceived to be living with HIV; 32 Section 28 (1) states that an employee shall not be discriminated against or be subjected to unfair treatment solely on the ground that he is perceived to be or is living with HIV; and
- Section 32 (1) states that the State shall ensure that employers adopt and implement an HIV and AIDS policy at the workplace.

The implications to the proposed project management team are to ensure that HIV and AIDS intervention measures are put in place that respond to the requirements of the Act. The construction contractors to be engaged need to have an HIV and AIDS workplace policy as a guide to implementing the interventions.

3.2.15 Persons with Disability Act (2024)

This act is a significant step towards ensuring equal opportunities and rights for persons with disabilities. Promoting policies and legislation that aim to equalise opportunities, protect rights, and fully integrate persons with disabilities into all aspects of life recognises 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. This implies that the project should promote equal employment opportunities for persons with disabilities.

The Persons with Disabilities Act, 2024 of Malawi represents a comprehensive legal framework aimed at promoting and protecting the rights and dignity of persons with disabilities. Replacing the earlier 2012 Act, it aligns with a human rights-based approach and introduces stronger mechanisms for enforcement, institutional reform, and integration into national development strategies. A key feature of the Act is the establishment of the Malawi Council for Disability Affairs (MACODA), which oversees the Disability Trust Fund and regulates disability-focused organizations. Key provisions of the Act prohibit discrimination in accessing premises, services, and employment (Sections 9 and 13), and emphasize the need for public infrastructure to be inclusive and accessible to all. For the 11 technical colleges under this project, these legal provisions have direct implications: all newly constructed facilities must incorporate universal design principles to ensure full accessibility for students, staff, and visitors with disabilities. This includes ramps, accessible toilets, signage, and classrooms designed to accommodate varying needs. Additionally, during the hiring process for construction and technical roles, the project implementers must ensure equal employment opportunities for persons with disabilities, as stipulated in the Act. The monitoring of compliance with these provisions will be supported by MACODA, in collaboration with district authorities and relevant ministries.

3.2.16 Environment Management (Waste Management & Sanitation) Regulations, 2008

The regulations apply to the management of general and municipal waste in Malawi. Part III of the regulations has provisions for management of general or municipal solid waste with Section 7(1) regulating that any person who generates solid waste shall sort out the waste by separating hazardous waste from the general or municipal solid waste. Section 8(1) regulates that every generator of waste shall be responsible for the safe and sanitary storage of all general or municipal solid waste accumulated on his or her property so as not to promote the propagation, harbourage or attraction of vectors or the creation of nuisances. Section 10(1) has provisions for collection of municipal solid waste as being the responsibility of a local authority. Section 11 has provisions that general or municipal solid waste may be disposed of at any waste disposal site or plant identified and maintained by a competent local authority or owned or operated by any person licensed to do so under these Regulations.

Part V of the regulations has provisions on management of municipal liquid waste with a general requirement stipulated in Section 23 that no person shall discharge effluent into the environment unless it meets prescribed environment standards. Section 36 has provisions on hazardous waste that state that:

- (1) No industry, business or medical facility shall discharge any hazardous waste in any state into the environment unless such wastes have been treated in accordance with acceptable international methods that are approved by a competent local authority in consultation with the Director.
- (2) Hazardous wastes whether treated or not shall not be discharged into a disposal site or plant unless such disposal site or plant has been approved and licensed for that purpose in accordance with these Regulations.

These regulations have a major implication on the proposed projects with regards to waste management regimes that are to be put in place. The project site will have to encourage waste separation at sources, provide proper and adequate waste receptacles, suitable waste storage and treatment facilities.

3.2.17 Environment Management (Chemicals and Toxic Substances Management) Regulations, (2008)

The Regulations provides basic requirements on the management of chemicals and toxic substances. Specifically, it provides requirements for manufacturing, repackaging, importation, exportation, transportation, distribution, sale or other mode of handling chemicals and toxic substances and in respect of any activity in relation to chemicals and toxic substances which involves a risk of harm to human health or the environment.

Part II provides requirements for management of chemicals and toxic substances. Regulation 4 requires that a licence is obtained to handle chemicals and toxic substances. Regulation 25

provides that every local authority should make by-laws relating to the management of chemicals and toxic substances in its jurisdiction, therefore Lilongwe City Council is responsible to formulate the byelaws. Regulation 30 requires that any person operating a disposal site or plant shall carry out annual audits of the environmental performance of the site or plant and shall submit the report to Malawi Environment Protection Authority. It also requires that environmental impact assessment be carried out as a requirement to obtain a licence to operate disposal site or plant for chemical wastes. Regulation 35 requires that a licence is obtained to import any chemical and toxic substances. Regulations 40 requires that any licensed entities should submit to the Director annual reports.

The proposed project may handle chemicals and other toxic substances, therefore there is need to comply to the requirements of the Regulations. The developer should acquire licences for handling and operating a disposal site or importing if it requires to handle, disposal and import any chemical and toxic substances. Finally, the developer should abide by the by-laws issued by Lilongwe City Council.

3.2.18 Monuments and Relics Act (1991)

The Monuments and Relics Act of Malawi is the primary legal framework governing the identification, preservation, and protection of cultural and historical heritage in the country. The Act aims to safeguard monuments, relics, and archaeological sites of significance, recognizing their value in terms of history, science, and national identity. It provides for the designation of protected monuments and protected relics, and outlines responsibilities of both the government and private individuals in conserving such heritage. A "monument" under this Act includes graves, shrines, altars, memorials, caves, inscriptions, and sites of interment or cultural interest. Key provisions of the Act include Section 11, which empowers the Minister, on the recommendation of the Monuments and Relics Advisory Council, to declare any such monument or relic protected. Section 13 prohibits unauthorized alterations or any development likely to disturb or damage protected sites, while Section 18 allows for the compulsory acquisition of such sites if they are at risk of destruction or deterioration due to development or neglect.

In the context of the current project, which involves 11 sites, it is critical to consider any potential impacts on cultural heritage, especially since one of the sites. Phwezi Technical College has a closed graveyard in relative proximity to the proposed development. It is critical to consider any potential impacts on cultural heritage, especially since one of the sites. Although the graveyard may not be officially declared a protected monument, its classification under the Act as a potential monument due to its cultural and historical relevance implies that it should be treated with caution. The proximity of construction works could result in indirect impacts such as vibration, dust, or access restrictions, which may be viewed as disturbances under Section 13. As such, prior consultation with the Department of Antiquities is advised to determine whether any formal assessment or rescue archaeology (as defined in the Act) is required. Overall, the project

must ensure compliance with the Monuments and Relics Act by avoiding disturbance to culturally sensitive sites, engaging qualified heritage specialists, and obtaining all necessary authorizations before construction begins.

3.3 Regulatory licenses, permits and approvals

Table 3-2 summarizes all the regulatory licenses, approvals, and standards that must be obtained or met for the proposed construction activities to ensure that the sub-projects are in line with sound and environmental management practices and comply with relevant legislation.

Table 3-1: Licenses, Permits and Approvals Required for the Proposed Sub-Project

No	Approvals	Description	Reference	Issuing Institution
1	ESMP Approval	The ESMP approval letter will be provided after approval of the ESMP	EMA, 2017	MEPA
2	Workplace Registration Certificate	Every workplace is required to be registered and must commit to abide by all the country's labour laws	Occupational Safety Health and Welfare (Amendment) Act (2015)	Ministry of Labour
3	Water Abstraction Rights	Where applicable	Water Resources Act (2013)	National Water Resources Authority
4	Development Approval	Approval of any present and future physical development of the sites	Physical Planning Act, 2016	Lilongwe District Councils

3.4 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 relating to the identification and assessment of environmental and social risks and impacts associated with projects supported by the Bank through Investment Project Financing. The Bank believes that the application of these standards, by focusing on the identification and management of environmental and social risks, will support Borrowers in their goal to reduce poverty and increase prosperity in a sustainable manner 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
<p>ESS 1 - Assessment and Management of Environmental and Social Risks and Impacts</p>	<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 environment 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>The ESMP covering the proposed construction activities at selected TEVETA institutions has identified E&S risks and impacts based on consultations with primary stakeholders including communities. This ESMP has also been prepared in line with the standard and taken into consideration key requirements provided in the Environmental and Social Management Framework for the SAVE Project. The ESMP also contains the monitoring plan which has the roles and responsibilities of the monitoring agencies.</p>
<p>ESS 2 – Labour and Working Conditions</p>	<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 fulltime, part-time, temporary, seasonal, and migrant workers. The construction activities shall adopt and comply with 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. The project will also have the Workers grievance redress mechanism and community grievance redress mechanism. The ESS also makes provision of community and occupational health and safety issues.</p>
<p>ESS 3 – Recourse and Efficiency, Pollution</p>	<p>ESS3 Promote the sustainable use of resources, including energy, water, and raw materials. Avoid or minimise adverse impacts on</p>

Environmental & Social Standards	Main requirements and conducted activities to meet them
Prevention and Management	human health and the environment caused by pollution from project activities. Avoid or minimise project-related emissions of short and long-lived climate pollutants. Avoid or minimise generation of hazardous and non-hazardous waste. Minimise and manage the risks and impacts associated with pesticide use. Requires technically and financially feasible measures to improve efficient consumption of energy, water, and raw materials, and introduces specific requirements for water efficiency where a project has high water demand. The construction activities at the institutions will adopt and integrate green-designs for example enforcement of use of environmentally friendly construction materials and methods such as use cement blocks but also promote efficient energy and water usage and management during construction. The project will also generate hazardous waste mainly solar batteries, e-waste, construction chemicals among others.
ESS 4 – Community Health and Safety	ESS4 addresses the health, safety, and security risks and impacts on project-affected communities and the corresponding responsibility of Borrowers to avoid or minimize such risks and impacts, with particular attention to people who, because of their circumstances, may be vulnerable. The construction works under the SAVE project will take place in institutions where there will be learners and hence the need for special protection from possible accidents. The project has ensured that the ESMP documents has provided mitigation measures to ensure community, leaders and workers safety. For the community interventions, a traffic management plan will need to be developed by the contractor based on the guide provided under the annex 11.
ESS 6- Biodiversity Conservation and Sustainable Management of Living Natural Resources	Even though no globally endangered species or critical habitats were found, the area has rare local flora and fauna, showing it is ecologically important. The contractor will ensure to avoid harming sensitive species and ecosystems, while meeting environmental standards.
ESS 10 – Stakeholder Engagement and Information Disclosure	This ESS recognizes the importance of open and transparent engagement between the borrower and project stakeholders as an essential element of good international practice. Effective stakeholder engagement can improve the environmental and social sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and

Environmental & Social Standards	Main requirements and conducted activities to meet them
	implementation. The College Management Committee (CMC) will play a major role in linking the construction sub-projects with the community. This ESMP also has a Grievance Redress Mechanism (annex 10) 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).
ESS not relevant to the project	
ESS5- Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Land Acquisition, Restrictions on Land Use and Involuntary Resettlement is not relevant to this project because the planned activities will be carried out within existing institutional land boundaries where there is no need for land acquisition, physical displacement, or loss of access to land or resources. There are no households, businesses, or communities that will be affected in a way that would trigger involuntary resettlement or economic displacement. As such, the project does not involve any of the conditions that would require the application of ESS5.
ESS8-Cultural Heritage	Cultural Heritage is not relevant to this project because the planned activities do not take place in any known cultural heritage sites, such as historical monuments, sacred places, or areas of archaeological, religious, or cultural significance. There is no evidence or indication that the project will affect tangible or intangible cultural heritage, and no cultural resources have been identified during preliminary assessments. Therefore, ESS8 does not apply to this project. However, a chance finds procedure has been recommended in the ESMP to manage any unexpected discoveries during implementation.

Chapter 4. : Environmental and Social Setting

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

4.1 Physical Environment

4.1.1 Topography of the project area

The Central Region of Malawi features a mixed topography that includes broad plateaus, river valleys and gentle hills to which Nthiransembe CSDC and Ntchisi CSDC belong. The most prominent landform is the Lilongwe - Kasungu Plains, stretching from the western border to the central areas, characterized by rolling terrain and moderate elevation. Kasungu CSDC, Kapondo CTC, MACODA and SOS Vocational Training Centres are located in this area. The region is also dissected by rivers like the Bua, Dwangwa and Lilongwe, which contribute to fertile alluvial plains. The region's elevation generally ranges from 1,000 to 1,600 meters above sea level (Lilongwe SEP 2017).

The Southern Region is the most geographically diverse part of Malawi as it includes highland plateaus, escarpments, and river valleys. Mangochi and Balaka where Mangochi CTC and Andiamo TC are situated share a tropical Savanna Climate, characterised by a distinct wet and dry season. Topography of both areas is primarily flat plains with hills and highlands interspersed with Machochi also featuring rift Valley.

The Northern Region is predominantly mountainous and rugged, especially toward the Nyika Plateau and Mafinga hills. These elevated areas, some exceeding 2,000 meters, are interspersed with deep valleys and steep escarpments, particularly along the western edge bordering Zambia. The region also includes parts of the Rift Valley, with Lake Malawi forming a major low-lying feature to the east. Kasama is located to the eastern foot of Mafinga hills. MIRACLE and SEEI are situated along the rift valley. Mbulunji and Phwezi are situated along the Henga valley to the eastern side of Nyika plateau. Sonda CSDC is located on the higher altitudes of Mzuzu. Ezondweni CTC is surrounded by Bunganya and Bwabwa hills to the east, Jenjewe and Njuyu to the south and Sonjo to the west with kahanga, Ruvwere and kasito rivers flowing in between.

4.1.2 Geology

In the central region: Kasungu Community Skills Development Centre in Kasungu District, the proposed site sits on flat plains. The geology of the site is formed of intermediate metamorphic rocks (gneiss). Kapondo Community Technical College in Mchinji District, the site sits on a flat plain. The geology of the area is formed of intermediate metamorphic rocks (gneiss). Gneiss reflects deep crustal metamorphic processes. Ntchisi Community Skills Development Centre in

Ntchisi District, the site sits on a hillside's landform. The geology of the project site is formed of intermediate metamorphic rocks (gneiss). Gneiss reflects deep crustal metamorphic processes. Mthiransembe Community Skills Development Centre in Ntchisi District, the site is situated at uplands landform. The geology of the site is formed of intermediate metamorphic rocks (gneiss). Gneiss reflects deep crustal metamorphic processes. SOS Technical College in Lilongwe city, the site sits on a flat plain of Lilongwe. The geology of the site is formed from intermediate metamorphic rocks (gneiss). Gneiss reflects deep crustal metamorphic processes and MACODA Technical College in Lilongwe city, the site sits on a flat plain of Lilongwe. The geology of the site is formed from intermediate metamorphic rocks (gneiss). Gneiss reflects deep crustal metamorphic processes.

In northern region, Kasama Community Technical College in Chitipa District sits on a margin plain. Intermediate metamorphic rocks (gneiss) and fluvial and colluvial deposits. These are eroded sediments from upstream, transported by running water and gravity-driven movement of rock and soil downslope. MIRACLE Technical Institute in Karonga District, the site sits on dissected footslog and the geology of the site is formed from a coarse-grained sedimentary rock (Sandstone). Sandstone is a coarse-grained sedimentary rock formed from compacted and cemented sand particles. Mbulunji Community Skills Development Centre in Rumphi District, the site is situated in a hillside's landform. The geology of the site is formed from medium- to fine-grained sedimentary rocks. Phwezi Technical College in Rumphi District, the site is situated in a hill and valley sides. The geology of the site is comprised with intermediate metamorphic rocks (gneiss). Gneiss reflects deep crustal metamorphic processes. Sonda Community Skills Development Centre in Mzuzu city, the site is situated in an upland's landform. The geology of the site was formed from intermediate metamorphic rocks (gneiss). Gneiss reflects deep crustal metamorphic processes and Solar Energy and Ecology Institute (SEEI) in Nkhata-Bay District, the site is located at dissected uplands landform. The geology of the project site is formed of intermediate metamorphic rocks (gneiss). Gneiss reflects deep crustal metamorphic processes.

The South region: Andiamo Technical College in Balaka District, the site sits on a foot slopes landform. The geology of the site is formed of fluvial and colluvial deposits. These are eroded sediments from upstream, transported by running water and gravity-driven movement of rock and soil downslope and Mangochi Community Technical College in Mangochi District, the site sits on beach ridges landform. The geology of the project site is formed of lacustrine deposits. Lacustrine deposits are geologically significant, fine-grained sediments formed in lake beds. Their calm depositional environment results in layered, clay- and silt-rich materials(<http://www.geology.gov.mw>.)

4.1.3 Soils

In the Central Region, Kasungu Community Skills Development Centre in Kasungu District has eutric-fer group of soil. The soil is very deep, well drained, yellowish brown to red, medium to

fine textured soils of very low chemical fertility and the soil pH(0-50cm) =5.0-6.0. Kapondo Community Technical College in Mchinji District has eutric-fer group of soil. The soil is deep, well drained, dark brown, medium over medium to fine textured soils of moderate chemical fertility and soil pH=5.0-6.0. Ntchisi Community Skills Development Centre in Ntchisi District has eutric-fer group of soil. The soil is very deep, well drained, fine textured, red soils, of low chemical fertility; pH (0-50 cm) = 5.0-6.0. Mthiransembe Community Skills Development Centre in Ntchisi District has eutric-fer group of soil. The soil is loamy sand soil, which is very deep, well drained, reddish brown, coarse to medium over medium to fine textured soils of moderate ch and soil pH(0-50cm) = 5.5-6.5. SOS Technical College in Lilongwe city has eutric-fer group of soil. The soil is sandy loam, which is deep, well drained, dark brown, medium over medium to fine textured soils of moderate chemical fertility; pH (50 cm) 5.0-6.5. MACODA Technical College in Lilongwe city has eutric-fer group of soil. The soil is sandy loam, which is deep, well drained, dark brown, medium over medium to fine textured soils of moderate chemical fertility; pH (50 cm) 5.0-6.5.

The soils in the Northern Region are influenced by the mountainous terrain. Kasama Community Technical College in Chitpa District has eutric-fer group of soil. The soil is very deep, well drained, brown to reddish medium to fine textured soils of moderate chemical fertile and the soil pH=5.0-6.5. fluvic soil group. very deep, imperfectly drained, greyish brown soils of variable texture and of medium chemical fertility. MIRACLE Technical Institute in Karonga District has Arenic group of soil. The soil is very deep, well to somewhat excessively drained, yellowish brown, coarse textured soils of very low chemic and the soil pH= 4.5-5.5. Mbulunji Community Skills Development Centre in Rumphi District has Eutric-fer group of soil. The soil is Very deep, well drained, fine textured, brown soils, of low chemical fertility; pH (0-50 cm) = 5.0-6.0. Phwezi Technical College in Rumphi District has Paralithic group of soil. The soil is sandy clay loam, which is moderately deep, well drained, fine textured skeletal soils, of low chemical fertility; pH (0-50 cm) = 5.5-. Sonda Community Skills Development Centre in Mzuzu city has Eutric-fer group of soil. The soil is Very deep, well drained, red, medium to fine over fine textured soils of low chemical fertility, pH upper and Solar Energy and Ecology Institute (SEEI) in Nkhata-Bay District has Dystric-fer group of soil. The soil is sandy loam, which is deep, well drained, medium over fine textured skeletal, red soils, of very low chemical fertility; pH (0-5).

The Southern Region: Andiamo Technical College in Balaka District has Eutric-fer group of soil. The soil is loamy sand, which is very deep, well drained, coarse textured, brown soils with low chemical fertility and soil pH(0-50cm) = 5.5-6.5 and Mangochi Community Technical College in Mangochi District has Arenic group of soil. The soil is sand which is very deep, well drained, coarse textured, yellowish brown soil of low chemical fertility and soil pH =upper 50 cm 5(<https://www.masdap.mw/layers/geomode.mw.soils>).

4.1.4 Weather and climate conditions

The Central Region experiences a subtropical climate with a distinct dry season (May–October) and rainy season (November–April). Average annual rainfall ranges from 800 to 1,200 mm, with cooler temperatures in the highlands (as low as 10°C in June–July mornings). Daytime temperatures generally range from 20°C to 30°C, with hotter conditions in low-lying areas (State of the Malawi Climate Report, 2022)

The Southern Region is the warmest and driest in Malawi, especially in the Lower Shire Valley, where temperatures can exceed 40°C in hot months. Annual rainfall varies widely: 600 mm in the valley and up to 2,000 mm in highland areas like Mulanje and Thyolo. The region has a tropical climate with a hot rainy season (Nov–Apr) and a cool, dry season (May–Aug).

The Northern Region is cooler and wetter, especially in the highlands and Nyika Plateau. Annual rainfall is relatively high, between 1,000 and 2,500 mm, depending on altitude. Temperatures are moderate, ranging from 15°C to 25°C, with cooler nights in upland areas. The region also follows a wet summer and dry winter pattern, like the rest of the country. <http://www.dcms.gov.mw/>.

4.1.5 Air Quality Assessments

The study focused on carrying out baseline air quality to monitoring of key parameters mainly; total suspended particulate (TSP), PM10, PM2.5, Carbon monoxide (CO), Nitrogen dioxide (NO2) and Sulphur dioxide (SO2) at sampled at one site in SOS site in Area 24. Nitrogen dioxide (NO2) and Sulphur dioxide (SO2) are both products of combustion of coal, oil and fossil fuel. The main sources of NO2 and SO2 are cars, trucks, and power plants. Both NO2 and SO2 can cause lung disease, eye irritation and burning of the skin. They can both contribute towards formation of smog and acid rain which is harmful to plant and aquatic life. The limits of exposure to NO2 and SO2 are provided in MS737:2021. Limits of exposure to CO differs from country to country and from organization to organization. In Malawi, the exposure limit for CO is 10 mg/m3 for a period of 8 hours as in Table 4-1.

Table 4- 1: OSHA Limit of exposure for CO

0 - 1ppm	Normal background level
9 ppm	Max level for living areas.
50 ppm	Max level for enclosed space, 8-hour exposure.
100 ppm	Exposure limit
200 ppm	Mild headache, fatigue, nausea and dizziness.
800 ppm	Dizziness, nausea and convulsion. Death within 2 to 3 hours

During construction it is expected that the produce will result into dust which will contribute to TSP, PM10 and PM2.5. Additionally, operation of vehicles and machinery will contribute to generation of CO, SO2 and NO2. Therefore, the baseline air quality results are presented in the following figure 4-1.

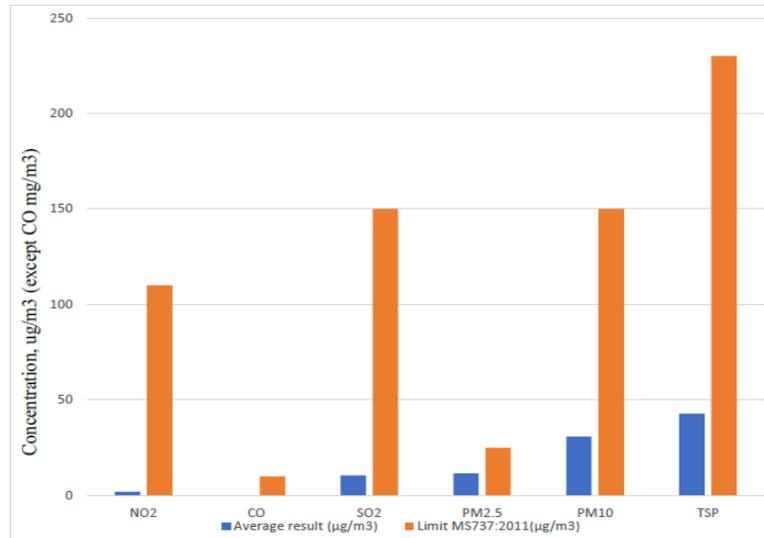


Figure 4- 1: Average result of PM2.5, PM10, TSP, CO, SO2 and NO2 at NCIC Offices

Source: Air Quality Baseline Study for at SOS construction site

All the results indicated shows that the results are below the acceptable limits as provided by the MS 737:2011. Therefore, it can be concluded that the baseline air quality at the proposed site are below environmental limit requirements as stipulated in relevant standards. This also means that the current air quality at the site is within the expected normal range for ambient air in Malawi.

Tab 4- 2: Air pollutants limits in the ambient air in Malawi

Substance	Symbol	Maximum allowable limits (µg/m ³)	Average time
Sulphur dioxide	SO ₂	350	1 hour
		150	24 hour
		50	1 year
Carbon monoxide	CO	23 (mg/m ³)	1 hour
		10 (mg/m ³)	8 hour
Nitrogen dioxide	NO ₂	290	1 hour
		110	24 hour
Particulate matter	PM _{2.5}	25	24 hour
		8	1 year
Particulate matter	PM ₁₀	300	1 hour
		150	24 hour
		0.50	1 year
Total suspended particles	TSP	230	24 hour
		90	1 year

Source: Malawi Bureau of Standards, 2021

4.1.6 Noise measurements

The study assessed the baseline noise level data which will act as a benchmark for any anticipated changes that might occur once the construction projects are underway and once the structures are in operational to verify compliance to environmental management plan as well as regulatory requirements. However, the effects of noise levels also depend on the duration of exposure by the receptor. The following table 4-3 shows the permissible limits for the noise receptors.

Table 4- 3: Permissible noise exposure limits (as per IEC 60804)

Sound Level pressure (dBA)	Maximum Duration Per Day (hr)
85	8
86	6, 21 min
87	5, 02 min
88	4
89	3, 11 min
90	2, 31 min
91	2
92	1, 35 min
93	1, 16 min
94	1
	Maximum Duration Per Day (min)
95	48
96	38
97	30
98	24
99	19
100	15
101	12
102	9
103	7.59
104	6
105	5
106	4
107	3
108	2.5
109	2
110	1.5
111	1
	Maximum Duration Per Day (Sec)
112	56
113	45
114	35
115	30

The project is expected to produce noise in different ways which include; movement of construction vehicles, welding works, and operation of various equipment. During the baseline assessment, the following table 4-3 presents the baseline noise levels found during the study.

Table 4- 4: Results of baseline noise level

Location	Noise Level (dBA)			
	Minimum	Average	Maximum	Acceptable Limit
SOS position 1	27.5	33.0	50.7	85 maximum
SOS position 2	27.8	34.7	51.4	85 maximum
SOS position 3	27.7	38.0	53.9	85 maximum
Average	27.67	35.23	52.0	85 maximum

Source: Noise Baseline Study for SOS construction site

The baseline noise level ranged from an average of 27.67bdBA to 35.23 dBA with 52.0 dBA as an average result. Malawi standard (MS) 173, Malawi Standard for Acoustics – Noise Pollution – Tolerance Limits stipulates 55dBA as maximum allowable limit for daytime and 45dBA as the maximum allowable limit for nighttime. The average noise level values at the site is thus within acceptable limit based on MS 173 and IEC 60804 for the day activities as the construction works will be done only during the day time. However, time of exposure to the excessive noise might be harmful, hence the limits of exposure provided under table are crucial.

4.2 Biological Conditions

4.2.1 Flora (vegetation) baseline status

During the flora assessment at the proposed project construction sites for various structures a diverse range of flora, including both indigenous and exotic species. The indigenous trees and plants, such as *Brachystegia spiciformis* (Tsamba or musani), *Markhamia obtusifolia* (Msewa), and *Burkea africana* (Mkalati or kawizu), are crucial to the local ecosystem. These species are mostly classified as Least Concern (LC), indicating that their populations are stable and they provide essential ecological functions. In total, 60-70% of the species at the sites are indigenous, most of which are classified as Least Concern, reflecting their relatively stable populations. Indigenous species, including *Holarrhena pubescens* (Kakope or chipeta) and *Combretum adenogonium* (Chinama or kadale), play vital roles in soil stabilization, erosion control, and improving soil quality, thus supporting the health of the land and contributing to overall biodiversity.

Exotic species, such as *Senna siamea* (Kesha wa milimo), *Mangifera indica* (Mango), and *Carica papaya* (Papaya), make up about 30-40% of the species found at the construction sites. These plants are typically valued for their agricultural benefits, such as fruit production, but they may pose ecological risks if not managed properly. For example, *Senna siamea* is a hardy plant that can become invasive, potentially outcompeting native species and disrupting local ecosystems. Other exotic species, like *Pinus patula* and *Gmelina arborea*, are generally categorized as Not Evaluated (NE) in terms of conservation status, suggesting limited data on

their ecological impact but no immediate concerns. In addition to these more common species, some rare and threatened plants are also present at the construction sites. *Parinari curatelifolia* (Muula) and *Strychnos spinosa* Lam. (Mateme or msongobo) are categorized as Threatened or Endangered, making it crucial to protect their habitats during the construction process. Species such as *Brackenridgea zanzibarica*, *Diospyros lycioides* (Chilechete), and *Psychotria eminiiana* (Chisukunthu) are also noted for their scarcity and vulnerability, further emphasizing the importance of their preservation.

In summary, the flora at the construction sites includes a mix of indigenous and exotic species. 60-70% of these species are indigenous and mainly classified as Least Concern, while 30-40% are exotic species that are generally Not Evaluated. The presence of rare and threatened species highlights the need for careful planning and management to ensure that construction activities do not negatively impact these important plants. Additionally, the proper management of exotic species will be necessary to maintain the integrity of the local ecosystem throughout the project.

4.2.2 Fauna (animal) baseline status

4.2.2.1 Birds species diversity

Based on the bird species assessment conducted at the project site a total of 14 bird species were identified, all belonging to the order *Passeriformes*. These species were distributed across nine different bird families, reflecting a notable level of avian biodiversity in the area. The family Estrildidae was the most represented, with four species including the *Bronze Manikin*, *Blue Cordon-bleu*, *African Firefinch*, and *Red-billed Firefinch*. Two families, *Cisticolidae* and *Ploceidae*, each had two species represented, such as the Rattling Cisticola and Red Bishop, respectively. The remaining families *Corvidae*, *Fringillidae*, *Malaconotinidae*, *Motacillidae*, *Passeridae*, and *Pycnonotidae* each had a single species present. This diversity highlights the ecological richness of the site and underlines the importance of incorporating biodiversity considerations into the planning and implementation of the technical structure to minimize potential impacts on avian fauna.

4.2.2.2 Mammal species diversity

The mammal survey for the project site recorded a total of eight mammal species, distributed across seven different families, showcasing moderate mammalian diversity in the area. The most represented family was Muridae, which included two species: the Multimammate Mouse (*Mastomys natalensis*) and the Bushveld Gerbil (*Tatera leucogaster*). All other families—*Anomaluridae*, *Erinaceidae*, *Felidae*, *Leporidae*, *Macroscelidea*, and *Soricidae*—were each represented by a single species. Noteworthy species include the African Wild Cat (*Felis silvestris cafra*), a small carnivore, and the Peter's Short-snouted Sengi (*Elephantulus fuscus*), an insectivorous mammal. The presence of both small rodents and predators indicates a relatively balanced terrestrial ecosystem. These findings emphasize the ecological value of the project site and the need to mitigate any potential impacts on local mammal populations during the development of technical infrastructure.



Figure 4- 2: *Frocidura fuscomurina*

4.2.2.3 Reptile species diversity

The reptile survey identified a total of six reptile species, all belonging to the order Squamata, and spread across five different families. The most represented family was *Lygosomatiinae*, which included two species: the Variable Skink (*Trachylepis varia*) and the Striped Skink (*Mabuya striata*). The remaining families *Agamidae*, *Chamaeleonidae*, *Gekkonidae*, and *Viperidae* each had one species. Key species observed include the Puff Adder (*Bitis arietans*), a venomous snake, and the Common Flap-necked Chameleon (*Chamaeleo dilepis-dilepis*), known for its distinct movement and adaptive camouflage. The presence of both harmless and venomous reptiles highlights the need for cautious site development to ensure the safety of workers and to minimize disturbance to local reptile habitats. This reptilian diversity underscores the ecological complexity of the area and the importance of considering herpetofauna in the project's environmental planning.



Figure 4- 3: *Peters grond agama*

4.2.2.4 Insect species diversity

The insect assessment documented 11 insect species across nine distinct families, indicating a high level of entomological diversity in the area. The most represented families were *Acrididae* (grasshoppers) and *Vespidae* (wasps), each with two species, showcasing the ecological roles of

both herbivorous and predatory insects. Other families identified with single species included Apidae (Honeybee – *Apis mellifera*), Pieridae (The African Migrant Butterfly), Nymphalidae (Brown Pansy), Papilionidae (Citrus Swallowtail), Meloidae (Blister Beetle), Diopsidae (Stalk-eyed fly), and figure 4-4 shows *Acraeidae* (Natal Acraea Butterfly).

This diverse presence of pollinators like bees and butterflies, along with important decomposers and pest controllers like wasps and beetles, emphasizes the ecological importance of the site. Any development activity should be carefully planned to minimize disturbance to this delicate insect population, which plays a crucial role in maintaining ecosystem balance and supporting agricultural productivity in the region.



Figure 4- 4: showing acraera natalica



Figure 4- 5: Coreidae-holoptera sp

4.2.3 Critical Habitats

Critical habitats, as defined by the World Bank Environmental and Social Standard 6 (ESS6), are areas with high biodiversity value that may include one or more of the following criteria:

- Critically Endangered and Endangered Species: Areas essential for the survival of species classified as Critically Endangered or Endangered on the International Union for Conservation of Nature (IUCN) Red List of Threatened Species.
- Endemic and Restricted-Range Species: Habitats that support species with limited geographic distribution, particularly those confined to specific regions or habitats, make them more vulnerable to extinction.
- Globally Significant Concentrations of Migratory Species or Congregation Species: Areas crucial for the migration, congregation, or breeding of species that move seasonally or gather in large numbers, such as migratory birds or marine species.
- Highly Threatened or Unique Ecosystems: Habitats that are critically important due to their rarity, unique ecological features, or because they are under significant threat from human activities.
- Key Biodiversity Areas: Sites identified as particularly important for biodiversity conservation based on criteria such as threatened species, unique ecosystems, or areas of high species richness.

No species listed as threatened or endangered by the IUCN Red List were recorded. The biodiversity assessment conducted at the project site revealed that all are of the least concern. As a result, their presence alone does not elevate the area to critical habitat status under ESS6. Nonetheless, conservation measures will be implemented to minimize disturbances to these species and their habitats, ensuring that construction activities do not negatively impact local biodiversity or the broader ecological integrity of the area.

4.3 Social Economic Environment

4.3.1 Administrative structure

Malawi is divided into three administrative regions: the Central Region, the Southern Region, and the Northern Region. The country comprises 28 districts, each headed by a District Commissioner appointed by the President. Local administration is managed through District Councils in the districts and City Councils in the cities. The proposed project sites fall under the governance of the Mzuzu, Rumphi, Nkhatabay, Karonga Chitipa, Lilongwe, Ntchisi, Kasungu, Mchinji, Balaka and Mangochi and Mzimba District Councils, Key local governance structures include the District Executive Committee (DEC) and the District Environment Sub-Committee (DESC).

Districts are further divided into Traditional Authority (TA) areas, which are subdivided into villages. Traditional Authorities head these areas, while chiefs lead the villages. Senior chiefs or Group Village Headmen (GVH) oversee groups of villages. Both TAs and village headmen (including GVHs) manage customary land, lead development activities, mobilize community participation in development programs, and maintain law and order. The proposed project areas include: T/A Tsabango, in Lilongwe District; T.A Mzukuzuku in Mzuzu, T/A Kaomba in

Kasungu, T/A Nsamala in Balaka T/A Malenga in Ntchisi, T/A Jalasi and T/A Mwambulambia. Traditional leaders perform their functions within structures such as the Village Development Committees (VDC) at the village level and the Area Development Committee (ADC) at the Traditional Authority level.

4.3.2 Demographic characteristics

Central Region

The data in table 4-5 shows that across the six technical colleges, there are 33 male and 51 female staff members, meaning about 39% of the staff are male and 61% are female. Student enrollment includes 216 males and 249 females, with females making up about 54% of the total students. Kapondo Community in Mchinji has the highest student population (150 students), while Kasungu CSDC has the lowest (46 students). Overall, most institutions have more female staff and female students, except at Kapondo, where male students slightly outnumber females.

Table 4- 5: Students and Staff Population statistics by gender for Kasungu, Ntchisi, Lilongwe and Mchinji

District/City	Technical College	Staff Population		Student Population	
		Males	Females	Males	Females
Kasungu	Kasungu CSDC	6	2	33	13
Ntchisi	Ntchisi Technical Collage	12	5	53	27
	Mthiransembe CSDC	7	3	35	17
Lilongwe	SOS Village	13	6	45	31
	MACODA	5	9	78	59
Mchinji	Kapondo Community	12	4	81	69

Southern Region

The data in table 4-6 shows staff and student numbers for two technical colleges in Malawi. Overall, there are 12 male and 20 female staff members across both colleges, meaning 37.5% of the staff are male and 62.5% are female. For students, there are 153 males, and 88 females enrolled, with males making up about 63.5% of the total student population and females 36.5%. Mangochi Community Technical College has the highest numbers, employing 9 male and 12 female staff and enrolling 98 male and 54 female students. Andiamo College in Balaka has fewer staff and students, with 3 male and 8 female staff members, and 55 male and 34 female students. Overall, both colleges have more female staff than male staff, but significantly more male students than female students.

Table 4- 6: Staff and Student Population

District	Technical College	Staff Population		Student Population	
		Males	Females	Males	Females
Balaka	Andiamo College	3	8	55	34
Mangochi	Mangochi Community Technical College	9	12	98	54

Northern region

Table 4-7 presents information on technical colleges in the northern region of Malawi, specifically in Chitipa, Karonga, Rumphi, Nkhatabay, and Mzuzu.

Table 4- 7: Staff and Student Population for Chitipa, Karonga, Rumphi, Nkhatabay, and Mzuzu Technical Colleges.

District/City	Technical College	Staff Population		Student Population	
		Males	Females	Males	Females
Chitipa	Kasama Community Technical College	11	4	58	60
Karonga	MIRACLE Technical Institute	17	6	50	44
Rumphi	Mbulunji Community Skills Development Centre	15	8	50	34
	Phwezi Technical College	14	7	54	44
Nkhatabay	SEEI	3	7	29	13
Mzuzu	Sonda CSDC	7	5	34	27

4.3.3 Religion

Consultations with community leaders revealed that Christianity is the dominant religion in Chitipa, Karonga, Rumphi, Nkhatabay, Mzuzu, Lilongwe, Kasungu, Ntchisi, and Mchinji, with most people belonging to denominations such as Catholic, CCAP, and various Pentecostal churches. In Balaka and Mangochi, leaders indicated a significant presence of Muslims, particularly among Yao-speaking communities. While Christianity remains common in Balaka, Mangochi is known to have a Muslim majority.

4.2.4 Language and Ethnicity

Staff members mentioned that students are mainly taught in English as the primary language of instruction; however, this is mostly applied to formal courses where students have a basic or good understanding of English. For informal courses, such as carpentry and bricklaying, instruction is usually done in local languages like Chichewa and Tumbuka to ensure easier communication. For communities around the project areas, local leaders identified the major languages used for communication as shown in table 4-8 below.

Table 4- 8: Main Languages used for communication

District	Main Local languages used for communication
Chitipa	Chindali, Chisukwa, Chinyika, Tumbuka
Karonga	Chitumbuka, Chinkhonde, Kyangonde
Rumphi	Tumbuka
Nkhatabay	Tonga, Chichewa, Tumbuka
Mzuzu	Tumbuka, Chichewa
Lilongwe	Chichewa
Kasungu	Chichewa
Ntchisi	Chichewa
Mchinji	Chichewa, Chewa
Balaka	Chichewa, Yao
Mangochi	Yao,Chichewa

4.3.4 Economic Activities

Consultations with community leaders surrounding the project area revealed that economic activities vary slightly by district but are mainly Centreed around agriculture, small businesses, and local employment. In Chitipa, Karonga, and Rumphi, most households engage in subsistence farming, growing maize, cassava, and groundnuts, alongside small-scale livestock keeping. In Nkhatabay and Mzuzu, farming remains important, but fishing and small-scale trade, especially in fish products, also contribute significantly to livelihoods. In Lilongwe, Kasungu, Ntchisi, and Mchinji, agriculture is the dominant activity, with many households cultivating maize, tobacco, groundnuts, and beans for both food and income. Additionally, petty trading and informal businesses such as tailoring, bicycle repair, and small grocery shops are common. Leaders in these areas also noted the growing number of skilled workers from technical colleges who are employed in trades such as construction, carpentry, and electrical installation. Consultations at Andiamo in Balaka and Mangochi Technical collage indicated subsistence farming as widespread, focusing on crops like maize and cassava, but fishing (especially in Mangochi) and trading in agricultural produce are major sources of income.

4.3.5 Land Tenure Systems

Consultations with staff members and screening forms revealed the majority of the colleges are on leasehold land. These include institutions such as Kasungu TC, Ntchisi TC, Mbulunji TC, Phwezi TC, Kapondo, MACODA, SOS, SEEI, and Sonda, where TEVETA or the institutions themselves have applied for leasehold titles. A few colleges, such as Andiamo in Balaka, Mangochi TC, Kasama, and Miracle TC, are situated on public land. Only one college, Mthiransembe, was found to be located on customary land. Table 4-9 below summarizes the technical colleges and their respective land tenure systems. The land for the project areas belong to the colleges and the evidence has been provided under annex 8.

Table 4- 9: Land Tenure Systems

District/City	Technical Collage	Type of Land System
Chitipa	Kasama Community Technical College	Public land
Karonga	MIRACLE Technical Institute	Public Land
Rumphi	Mbulunji Community Skills Development Centre	Leasehold (Applied)
	Phwezi Technical College	Leasehold
Nkhatabay	SEEI	Leasehold
Mzuzu	Sonda CSDC	Leasehold (Applied)
Balaka	Andiamo College	Public Land
Mangochi	Mangochi Community Technical College	Public Land
Kasungu	Kasungu TC	Leasehold
Ntchisi	Ntchisi Technical	Leasehold
	Mthiransembe CSDC	Customary
Lilongwe	SOS Village	Leasehold
	MACODA	Leasehold
Mchinji	Kapondo CSDC	Leasehold

4.3.6 Agriculture

According to consultations with the community most people in the project area practice subsistence farming. Harvests typically occur between March and June, depending on the crop and location. Table 4-10 below indicates the type of crops that are commonly grown in each community around project areas.

Table 4- 10: Common Crops grown in communities surrounding the project sites

District/City	Technical Collage	Crops Grown
Chitipa	Kasama Community Technical College	Maize, Soya beans, groundnuts, Irish potatoes, millet, Bananas
Karonga	MIRACLE Technical Institute	Rice, maize, cassava, bananas, groundnuts
Rumphi	Mbulunji Community Skills Development Centre	Maize, groundnuts, beans, tobacco, Irish potatoes
	Phwezi Technical College	Maize, groundnuts, beans, tobacco, Irish potatoes
Nkhatabay	SEEI	Cassava, bananas, rice, maize, groundnuts
Mzuzu	Sonda CSDC	Maize, cassava, beans, vegetables (cabbage, tomatoes)
Balaka	Andiamo College	Maize, pigeon peas, groundnuts, sweet potatoes, sorghum
Mangochi	Mangochi Community Technical College	Rice, maize, cassava, groundnuts, mangoes
Kasungu		Tobacco, maize, groundnuts, soya beans
Ntchisi	Ntchisi Technical	Maize, groundnuts, beans, tobacco
	Mthiransembe CSDC	Maize, groundnuts, beans, sweet potatoes
Lilongwe	SOS Village	Maize, groundnuts, vegetables (cabbage, tomatoes), beans
	MACODA	Maize, groundnuts, vegetables (onions, tomatoes), soya beans
Mchinji	Kapondo Community College	Maize, groundnuts, tobacco, soya beans

4.3.7 Education

Table below highlights education disparities across the project sites in Central Region

4.37.1 Central Region

Table 4-11 shows clear education disparities across the project sites, with female enrollment consistently lower than male enrollment in most colleges. Dropout rates also vary widely, with some institutions like Kaponda TC and Mthiransembe CSDC showing higher dropout rates among females in 2022, while others like Kasungu TC saw an increase in female dropouts in 2023. These differences highlight ongoing gender and retention challenges in technical education.

Table 4- 11: Education disparities across the project sites in Central Region

TC/CSDC	2022				2023			
	Enrollment		Dropout rate		Enrollment		Dropout rate	
	Male	Female	Male	Female	Male	Female	Male	Female
Kasungu TC	23	10	7	6	23	7	4	11
Mthiransembe CSDC	35	17	8	10	35	17	3	5
Ntchisi TC	30	7	0	1	53	27	5	8
Kaponda TC	63	45	5	14	81	69	17	6
SOS Village	30	12	0	2	45	31	0	2
MACODA	65	43	7	5	78	59	4	6

4.3.7.2 Northern Region

Table 4- 12: Education disparities across the project sites in Northern Region

TC/CSDC	2023				2024			
	Enrollment		Dropout rate		Enrollment		Dropout rate	
	Male	Female	Male	Female	Male	Female	Male	Female
SEEI	20	11	0	2	19	23	0	1
Kasama	52	33	2	0	55	44	0	2
Miracle	50	33	3	0	54	35	0	0
Mbulunji	53	37	5	3	66	39	0	0
Phwezi	51	39	6	2	75	43	0	0
Sonda	49	25	5	3	61	42	0	0

4.3.7.4 Southern Region

In the Southern Region, female enrollment remains lower than male enrollment at both Andiamo and Mangochi TCs. However, dropout rates are generally low across the board. Notably, Andiamo recorded zero dropouts in 2023, indicating improved retention. Despite this, the gender gap in enrollment suggests continued barriers to female participation in technical education.

Table 4- 13: Education disparities across the project sites in Southern Region

2022				2023				
TC/CSDC	Enrollment		Dropout rate		Enrollment		Dropout rate	
	Male	Female	Male	Female	Male	Female	Male	Female
Andiamo	53	12	0	2	45	15	0	0
Mangochi	57	35	1	0	63	26	0	2

4.3.8. Health

Table 4-14 provides an overview of the health facilities commonly accessed by technical colleges and surrounding communities within the project areas. Malaria, cough, and scabies appear as the most common health issues across multiple districts, particularly in Ntchisi, Chitipa, and Balaka. Generally, the health centres cover emergencies. However, there are specific emergencies which cannot be handled at the health centre level, and these are normally referred to the district hospitals and central hospitals. Some of the emergencies include major operation activities, responding to emergencies requiring amputation of the limbs, snake bites, body transplants among others.

Table 4- 14: Prevalent Diseases and Nearest Hospitals

District	Technical Collage/CDSC	Hospital	Common Diseases
Chitipa	Kasama	Namatuwi Healthy Centre	Malaria, Diarrhea, Measles, Scabies and Measles.
Karonga	Miracle	Karonga District Hospital s	Malaria, Cough
Rumphi	Mbulunji	Mujuju	Malaria, Cough
	Phwezi	Mzokoto Healthy Centre	Malaria, Cough
Nkhatabay	SEEI	Nkhatabay District Hospital	Malaria, Cough
Mzuzu	Sonda	Mzuzu Central Hospital	Malaria, Cough
	Mzuzu		Malaria, Cough
Kasungu	Kasungu CSDC	Kasungu District Hospital	Malaria, Cough
Mchinji	Kaponda	Health Centre	Malaria, Cough
Lilongwe	SOS Village	Bwaila Hospital	Malaria, Cough
	MACODA	Bwaila Hospital	Malaria, Cough

Ntchisi	Ntchisi	Ntchisi District	Malaria, Cough, Scabies
	Mthiransembe	Kamsonga Healthy Centre	Malaria, Cough, Scabies
Balaka	Andiamo	Balaka District Hospital, Comfort Healthy Centre	Malaria, Cough, STIs,
Mangochi	Mangochi	Mangochi District Hospital	Malaria, Cough

4.3.9 Telecommunication

Residents near the project sites mainly rely on Airtel and TNM networks for mobile calls, SMS, and internet access, with most areas enjoying stable 4G coverage. According to feedback from community members, social media platforms like WhatsApp and Facebook are widely used for communication and information sharing, while local newspapers such as The Nation and The Daily Times remain trusted sources of news. Popular radio stations like MIJ FM, Capital Radio, and Zodiac are frequently used for updates on current affairs. In terms of transportation, access to the technical colleges is generally via minibuses, motorcycles (kabaza), and bicycles, especially in rural and peri-urban districts. Some colleges located near main roads also benefit from public buses and private vehicles, while more remote sites may rely on footpaths or gravel roads, which become difficult to navigate during the rainy season.

4.3.10 Energy

Community consultations around the technical colleges revealed that most nearby households rely on charcoal and firewood for cooking, while electricity—where available—is mainly used for lighting and phone charging. In more urbanized districts such as Lilongwe, Mzuzu, and Kasungu, the technical colleges are connected to the national electricity grid (ESCOM), although power outages are common. In rural districts like Ntchisi, Mchinji, Chitipa, and Rumphu, some colleges supplement grid power with solar panels or generators, while surrounding households continue to rely on biomass energy.

4.3.11 Sanitation and Waste Management

During the operational phase of the colleges, a range of solid and liquid waste will be generated due to the activities taking place across various infrastructure components such as hostels, workshops, laboratories, kitchens, greenhouses, kholas, classrooms, and administrative offices. These wastes can broadly be categorized into domestic and non-domestic types.

Solid Waste will include paper, plastics, glass, food waste, cardboard, and packaging materials. These will mainly be generated from hostels, dining facilities, classrooms, administration blocks, and workshops. Each institution will be responsible for placing waste collection skips in strategic

locations within their premises. The administration of the colleges, or designated contractors, will oversee waste collection, storage, and safe disposal. The waste will be managed in accordance with local authority guidelines, ensuring minimal environmental impact. Waste segregation at source is recommended to allow recycling where feasible. In addition, non-domestic waste will be generated from greenhouses and animal shelters (kholas), especially in colleges with agriculture and livestock components. These facilities will produce plant residues, soil debris, agricultural packaging waste, animal droppings, and bedding materials. These wastes require separate management practices, such as composting of organic materials and safe disposal of any hazardous residues, to prevent contamination of the environment. Liquid Waste, primarily wastewater, will originate from washrooms, kitchens, workshops, and laboratories. This includes greywater and blackwater from toilets, sinks, and drainage systems. Most technical colleges will rely on on-site sanitation systems such as septic tanks and soakaways for managing liquid waste. The systems will be designed to ensure effective treatment and containment of effluent to avoid groundwater contamination or surface runoff pollution. Regular maintenance of these systems will be essential to prevent blockages, leakages, and associated health risks. In institutions with agricultural workshops, additional liquid waste will result from cleaning activities in animal shelters and greenhouses. These should be handled through dedicated channels, possibly using soak pits or bio-digesters depending on the volume and nature of the waste, to minimize environmental and health impacts.

4.3.12 Security

Security was identified as a recurring concern during institutional consultations held at the technical colleges and Community Skills Development Centres (CDSCs) across the 11 project sites. Discussions with school administrators and staff revealed that theft remains a major challenge in both rural and urban colleges, affecting infrastructure, teaching resources, and student welfare. Boarding institutions further reported frequent cases of petty theft involving students' personal items such as clothing, blankets, mobile phones, and food, with some colleges linking this to lack of lighting and overcrowded dormitories. At Phwezi Technical College in Rumphi, staff reported that thefts are usually reported to Chinyolo Police Station, although response times are slow due to the rural location and limited police resources. Similar experiences were shared at Kasama in Chitipa and Mbulunji in Rumphi, where stolen property is rarely recovered. In contrast, urban institutions such as Sonda in Mzuzu, SOS Village, and MACODA in Lilongwe reported stronger collaboration with nearby police stations and quicker response times. These urban colleges are more likely to engage local police for regular patrols, but they still experience theft due to gaps in surveillance systems and limited security staffing. The police are mostly armed and arms are provided by the Government of Malawi. Prior to the project implementation, a training will be required to be done to the policemen to avoid measures which can injure or harm people with the use of firearms. Most institutions indicated they handle theft internally by reporting to the police and conducting internal investigations through school

administration, though this often results in minimal recovery of stolen items. the police will also work with the local community policing in order to curb the theft cases.

4.3.13 Water Resource

Institutional consultations and site assessments across the 13 technical colleges and Community Skills Development Centres (CDSCs) revealed that the primary sources of water vary, with distinctions between daily institutional use and anticipated water needs during construction. Although Kasama (Chitipa), Ntchisi Community Skills Development Centre, Kasungu Community Skills Development Centre, and MIRACLE Technical Institute (Karonga) are listed as relying on river or borehole sources, they actually access piped tap water for drinking and institutional needs. However, due to the high water demand expected during construction activities such as for curing concrete, site cleaning, and worker sanitation these institutions plan to supplement their supply by using on-site boreholes. In colleges where the main source is listed as a river, such as Kasama, Kasungu, and MACODA (Lilongwe), this indicates that the river will be the primary water resource for construction purposes, even though tap or borehole water may also be available on campus. The remaining institutions, such as Phwezi, Mbulunji, SEEI, Sonda, Mangochi, Andiamo, Kapondo, Ntchisi, and SOS Village, rely primarily on boreholes for both institutional and construction-related needs.

Chapter 5. : 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. 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	x	x	x	x
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	x	x	x	-
Key				
No Substantial Interaction	-			
Possible Interaction	X			

5.2 Significance Ranking of the Impacts

The key objective of implementing this methodology was to identify any potential environmental issues and associated impacts likely to arise from the proposed project, and to propose a significance ranking. Issues or aspects were reviewed and ranked against a series of significance criteria to identify and record interactions between activities and aspects, and resources and receptors to provide a detailed discussion of impacts. A standard risk assessment methodology was used for the ranking of the identified environmental impacts pre-and post-mitigation (i.e. residual impact). The significance of environmental aspects is determined and ranked by considering the criteria presented in Table 5-2.

Table 5-2: Impact Assessment Criteria and Scoring System

CRITERIA	SCORE 1	SCORE 2	SCORE 3	SCORE 4	SCORE 5
Impact Magnitude (M) The degree of alteration of the affected environmental receptor	Very low: No impact on processes	Low: Slight impact on processes	Medium: Processes continue but in a modified way	High: Processes temporarily cease	Very High: Permanent cessation of processes
Impact Extent (E) The geographical extent of the impact on a given environmental receptor	Site: Site only	Local: Inside activity area	Regional: Outside activity area	National: National scope or level	International: Across borders or boundaries
Impact Reversibility (R) The ability of the environmental receptor to rehabilitate or restore after the activity has caused environmental change	Reversible: Recovery without rehabilitation		Recoverable: Recovery with rehabilitation		Irreversible: Not possible despite action

CRITERIA	SCORE 1	SCORE 2	SCORE 3	SCORE 4	SCORE 5
Impact Duration (D) The length of permanence of the impact on the environmental receptor	Immediate: On impact	Short term: 0-5 years	Medium term: 5-15 years	Long term: Project life	Permanent: Indefinite
Probability of Occurrence (P) The likelihood of an impact occurring in the absence of pertinent environmental management measures or mitigation	Improbable	Low Probability	Probable	Highly Probability	Definite
Significance (S) is determined by combining the above criteria in the following formula:	$[S = (E + D + R + M) \times P]$ <i>Significance = (Extent + Duration + Reversibility + Magnitude)</i>				
IMPACT SIGNIFICANCE RATING					
Total Score	4 to 15	16 to 30	31 to 60	61 to 80	81 to 100
Environmental Significance Rating (Negative (-))	Very low	Low	Moderate	High	Very High
Environmental Significance Rating (Positive (+))	Very low	Low	Moderate	High	Very High

5.3 Impact Significance Rating for the Identified Impacts

Table 5-3 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)
Planning and Design Phase impacts and their ratings				
Social	Creation of employment opportunities (architects, engineers, and other experts)	Positive	Moderate	High (+)
	Improved project compliance to national environmental and social legislations	Positive	High (+)	High (+)
Construction phase impacts and their ratings				
Air Quality	Dust and particulate emissions	Negative	Moderate	Very Low
	Increase in combustion emissions	Negative	Moderate	Very Low
Noise	Increase in construction noise levels	Negative	Moderate	Low
Surface Water	Increased risk of water contamination	Negative	Moderate	Low
Groundwater	Decrease in groundwater quantity due to borehole water use	Negative	Low	Very Low
	Decrease in groundwater quality due to leachate/spills from fuel storage areas.	Negative	Low	Very Low
Waste	Poor waste disposal practices	Negative	Moderate	Low

Aspect	Impact	Nature	Significance	Significance
			(Before Mitigation)	(After Mitigation)
Soils and Land Capability	Soil erosion	Negative	Moderate	Low
	Soil contamination	Negative	Low	Very Low
Terrestrial Biodiversity	Direct loss and disturbance of natural habitat and associated flora SCC	Negative	Low	Very Low
	Loss and fragmentation of faunal habitat	Negative	Moderate	Very Low
Traffic	Traffic Disruptions due to construction vehicles leading to traffic congestion	Negative	Moderate	Very Low
	Deterioration of the surrounding road network due to an increase of traffic around the site	Negative	Low	Very Low
	Impact on school children due to proximity of the site to the primary school	Negative	High	Moderate
Social	Availability of market for construction materials and services, and other trades	Positive	Moderate	High (+)
	Creation of employment opportunities	Positive	Moderate	High (+)
	Artisanal skill development	Positive	Moderate	High (+)
	Disruption on provision of education services	Negative	Moderate	Low
	Community, health and safety risk	Negative	Moderate	Low
	Increased risk to diseases, STIs and HIV and AIDS	Negative	High	Moderate
	Conflicts over use of local water resources	Negative	Moderate	Low

Aspect	Impact	Nature	Significance	Significance
			(Before Mitigation)	(After Mitigation)
	Health and safety of site personnel	Negative	High	Low
	Learners at risk of pregnancies, sexual harassment, & SEA	Negative	Moderate	Low
	GBV and sexual exploitation and abuse	Negative	Moderate	Low
	Increased Incidences of child labour	Negative	High	Low
	Disturbance of graveyard operations near by	Negative	Moderate	Low
	Increased Student Exposure to Practical Training Opportunities	Positive	Moderate	High (+)
Operation phase impacts and their ratings				
Waste	Poor waste disposal practices	Negative	Moderate	Low
Visual	Improved outlook of the institutions	Positive	High	Very High (+)
Social	Promotion of teaching and training of labour market relevant skills	Positive	High	Very High (+)
	Increase in number of students enrolled especially females	Positive	High	Very High (+)
	Increased risk to diseases, STIs and HIV and AIDS	Negative	Moderate	Low
	Occupational health and safety of learners and staff	Negative	Moderate	Low
	Increased energy and water use	Negative	Moderate	Very Low

5.4 Description of general 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.

Enhancement Measure:

- i. Labour laws and constitutional provisions will be respected and observed;
- ii. Keep and update appropriate employment records in line with legislative requirements

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.

Enhancement Measures:

- i. Conduct continuous capacity building and training for project staff and implementing partners on environmental and social safeguard requirements.
- ii. Establish a dedicated Environmental and Social Management Unit to oversee implementation and monitoring of the ESMP and other instruments.
- iii. Undertake regular environmental and social audits to identify compliance gaps and implement corrective actions.
- iv. Facilitate stakeholder engagement and awareness campaigns to inform communities and stakeholders about relevant legal and policy frameworks.

5.4.2 Construction phase positive impacts

5.4.2.1 Creation of local employment opportunities

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

Enhancement Measure

- i. Give preference to the residents when recruiting skilled and general workers.
- ii. Employ all general workers from the project area.
- iii. Labour laws and constitutional provisions will be respected and observed; and
- iv. Keep and update appropriate employment records in line with legislative requirements

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

The construction phase of the sub-projects 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.

Enhancement Measures:

- i. Source at least 70% of construction materials from registered Malawian suppliers, prioritising businesses within the project sites to reduce carbon footprint and boost local industry.
- ii. Ensure that at least 50% of purchased cement, paint, and timber are locally manufactured or processed, reducing reliance on imports and fostering domestic production.
- iii. Engage at least three Malawian transport and logistics companies to move materials and equipment, ensuring fair market access for local service providers.
- iv. All suppliers and service providers must comply with Malawi Bureau of Standards (MBS) and MRA tax registration, ensuring formal economic participation.
- v. Establish a monitoring system for material use and procurement, with a monthly review of supply chain compliance with sustainability and labour rights policies.

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.

Enhancement Measures:

- Ensure that at least 60% of unskilled workers receive structured on-the-job training in bricklaying, plumbing, carpentry, and painting, with clear learning targets defined within the first three months of employment.
- Pair each unskilled worker with an experienced tradesperson under a structured mentorship program, ensuring skills transfer throughout the project.
- Organise at least one formal safety and skills development workshop per quarter, covering construction best practices, OHS compliance, and labour rights.
- Ensure equal training opportunities for women and marginalized groups, with targeted efforts to involve at least 30% female trainees in the skill-building.

5.4.2.4 Increased Student Development and Exposure to Practical Training Opportunities

During construction works, students from the technical colleges may be engaged to gain onsite practical experience. This can positively impact youth skills development by providing real-world exposure to construction processes, such involvement enhances their practical knowledge, bridges the gap between theory and practice, and contributes to workforce readiness, thereby supporting long-term human resource development in the construction and engineering sectors

Enhancement Measure:

- Develop a clear schedule for student engagement that aligns with construction phases and learning outcomes.
- Ensure students are supervised by qualified site engineers or technicians to maximize learning and ensure safety.
- Provide students with appropriate personal protective equipment (PPE) and safety training before site engagement.

5.4.3 Operation Phase Positive Impacts

5.4.3.1 Enhanced Skills Development

The infrastructures and associated facilities developed by the project 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 Colleges can prioritise including women and disadvantaged groups in training programmes, promoting gender equality and social inclusion.

Enhancement Measure:

- Develop a clear schedule for student engagement that aligns with construction phases and learning outcomes.
- Ensure students are supervised by qualified site engineers or technicians to maximize learning and ensure safety.

- Provide students with appropriate personal protective equipment (PPE) and safety training before site engagement.

5.4.3.2 Improved Educational Facilities

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

Enhancement Measure:

- Ensure the design and construction of facilities meet modern standards for safety, accessibility, and learning efficiency.
- Equip classrooms, laboratories, and workshops with up-to-date tools, materials, and digital learning aids.
- Provide regular maintenance and timely upgrades to preserve the quality and functionality of the infrastructure.

5.4.3.3 Infrastructure Improvement

The construction activities 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.

Enhancement Measure:

- Engage local authorities and community members in planning to ensure infrastructure upgrades align with broader development goals.
- Prioritize the hiring of local labor and sourcing of materials to boost community ownership and economic benefits.

5.4.3.4 Enhanced Capacity Building Among Instructors

Capacity building is one of the key positive impacts anticipated from the proposed project, particularly through the transfer of knowledge and skills to staff members. As part of the project implementation, targeted trainings will be provided in areas such as solar installation, greenhouse management, and modern agricultural practices. These capacity-building efforts will not only enhance the technical skills of the workforce but also promote long-term sustainability by enabling local instructor to manage and maintain new technologies independently. To enhance this impact, the project will partner with accredited training institutions to ensure the delivery of high-quality, certified training programs.

Enhancement Measure:

- Implement Training-of-Trainers (ToT) programs for select instructors...
- Monitor and evaluate training effectiveness through assessments and feedback

5.4.1.5 Clean energy

The project promotes clean energy use, especially solar power, reducing reliance on fossil fuels and lowering emissions. This enhances energy reliability, supports environmental sustainability, and provides hands-on learning opportunities in renewable technologies.

Enhancement Measure:

- i. Collaborate with renowned institutions and industry experts to deliver specialized, high-quality training programs for instructors.
- ii. Offer both theoretical and practical training to ensure that instructors can effectively transfer new knowledge and skills to students.

5.4.3.6 Increased Income Generation for the institution from Greenhouse Produce and Livestock.

The integration of greenhouse farming and livestock production will increase income generation or the institution by enabling year-round crop production, which leads to higher yields and premium prices, as well as providing additional income through livestock products like milk, eggs, and meat. The controlled environment of greenhouses also allows for diversified crop production, expanding income sources and ensuring financial stability for students providing training and capacity building on sustainable agricultural and livestock management ensures that income generation remains environmentally responsible and resilient. These measures help optimize the benefits of greenhouse farming and livestock production while minimizing their negative effects on the environment.

Enhancement Measures:

- i. Train staff and students in sustainable and climate-smart agricultural practices.
- ii. Partner with local markets to secure reliable buyers for produce and livestock products.

5.4.4 Negative impacts during planning and design phase

5.4.4.1 Increased risk of accidents and exposure to hazardous material

Experts to be contracted to develop the various materials associated with the design and planning phase will be exposed to various occupational risks, especially those related to outdoor works. These risks may lead to injuries if not prevented and/or avoided. Considering that the duration of the works is within 180 days and that no major works will be conducted, the impact is of moderate significance.

Mitigation measures:

- i. Develop Occupational Safety and Health (OSH) guidelines, which will aim to avoid, minimise, and mitigate the risk of workplace accidents;
- ii. Provide PPE and enforce its use
- iii. Provide OSH orientation training and hazard specific training;
- iv. Ensure that the construction sites have first aid tool kits under the care of a trained first Aid attendant.

5.4.4.2 Risk of sexual harassment, and sexual exploitation and abuse

The planning and design consultants' team to be engaged during this period will be in contact with the local community that includes college and primary students, staff and their family

members, and other community members. It is important that the experts and their teams hold themselves to the highest standards and not sexually exploit the vulnerable of the projects area of impact.

Mitigation measures:

- i. Contractual clause should be presented that explains the consequences of any of sexual harassment, and sexual exploitation and abuse cases;
- ii. Codes of conduct should be made part of the contract and be signed by all team members of the contractor; and
- iii. Setup a grievance redress mechanism to capture sexual harassment-related issues or suspected sexual harassment actions.

5.4.5 Construction Phase Negative Impacts

5.4.5.1 Disruption of the Provision of Education Services mainly for the sites

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 colleges, 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.

Suggested mitigation measures

- i. Implement dust control measures (e.g., water spraying, tarps on stockpiles) to maintain air quality near classrooms.
- ii. Barricading work area.

5.4.5.2 Increased Risks of GBV, SEA, and Defilement

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

Mitigation measures:

- i. Contractual clause should be presented that explains the consequences of any of sexual harassment, and sexual exploitation and abuse cases;
- ii. Follow measures specified in the Labour Management Procedures and the World Bank's good practice note on GBV prevention.
- iii. Codes of conduct should be made part of the contract and be signed by all team members of the contractor; and Setup a grievance redress mechanism to capture sexual harassment-related issues or suspected sexual harassment actions (annex 10).

5.4.5.3 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 Hazard 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.

Suggested mitigation measures

- i. Implement dust suppression measures (water spraying, windbreaks, and covering materials) to minimize airborne particles affecting nearby residences and classrooms.
- ii. Enforce strict noise control protocols by limiting loud activities to daytime and using acoustic barriers near sensitive areas like hostels.
- iii. Establish traffic management plans including flagmen, designated crossing points, and staggered delivery schedules to protect schoolchildren and reduce congestion.

5.4.5.4 Increased incidences of child and forced labour

Poverty is one of reasons of children being 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 are surrounded by communities, with most 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.

Mitigation measures:

- i. Include a clause in the contract that prohibits any forms of child labour on the project.

- ii. Display posters at the project site that warn and inform against child labour.
- iii. Put in place proper procedures for reporting and addressing child labour cases.

5.4.5.5 Increase in Deterioration of Air Quality

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.

Mitigation measures:

- i. Avoid burning of cleared vegetation by the workers;
- ii. Maintain construction vehicles on set periods to minimize exhaust emissions; and
- iii. Avoid idling of vehicles unless impractical for health and safety reasons (for example, maintenance of air conditioning).

5.4.5.6 Increase in 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.

Mitigation measures:

- i. Limiting civil works and noise generating activities to daytime between 07:00 – 17:00hrs;
- ii. Use any other additional Standard Operating Procedures (SOPs) and best practices to manage sound in various operations;
- iii. All machines and vehicles used on site should be regularly serviced; and
- iv. Notify nearby institutions at least 24 hours in advance if particularly noisy activities are anticipated.

5.4.5.7 Increase Occupational Accidents and Injuries

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.

- i. Develop and implement an Occupational Safety and Health Plan, which aims to avoid, minimise, and mitigate the risk of workplace accidents.
- ii. Use only trained workers, use of safe machinery and equipment and providing necessary personal protective equipment (PPE);
- iii. Provide OSH orientation training and hazard specific training;
- iv. Ensure availability of first aid kits at project site;

5.4.5.8 Increased risks related to 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.

Suggested mitigation measures

- i. Enforce strict non-discrimination hiring policies requiring transparent job postings, diverse interview panels, and merit-based selection.
- ii. Provide accommodations for workers with disabilities, including accessible facilities, flexible roles, and assistive technologies.

5.4.5.9 Increased risk of infectious diseases (spread of STIs, HIV and AIDS)

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

Mitigation measures:

- i. Institute HIV and AIDS prevention program to include peer education, free condom distribution etc.; and
- ii. Liaise with appropriate healthcare workers to undertake health awareness and education initiatives on STIs amongst workers and in nearby communities.

5.4.5.10 Increased 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.

Mitigation measures:

- i. Provide colour coded waste receptacles for organic, plastic and glass waste;
- ii. Conduct lesson plans for learners on solid waste management;
Excavate a 36 cubic meter compost pits for disposal of organic waste to make compost manure that can be used in the college flower beds.

5.4.5.11 Increase in Electricity Consumption

Electricity Supply Corporation of Malawi supplies electricity to the project area. Most institutions use 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.

Mitigation Measures:

- i. 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
- ii. Encourage utilisation of building design that uses passive solar design to take advantage of natural sunlight and airflow

5.4.5.12 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.

Mitigation Measures:

- i. Install Water-saving equipment, including ultra-low-flush toilets, spray nozzles, urinals, faucet aerators, and low-flow showerheads, and pressure-control valves; and
- ii. Post notices to encourage the sparing use of water.

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

Mitigation measures:

- i. Stripping of topsoil will not be conducted earlier than required (maintain vegetation cover for as long as possible);
- ii. Ensure that stripped control measures such as intercept drains and toe berms will be constructed where necessary;
- iii. Ensure that soil stockpiles will be sampled, ameliorated (if necessary) and re-vegetated as soon after construction as possible; and
- iv. Ensure that access roads will be well drained to limit soil erosion.

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

During project site clearing, shrubs and trees specifically the indigenous ones will be destroyed.

The vegetation including two (2) trees, jacaranda and Gmelina, will be removed to pave way for construction activities. These trees play a crucial ecological role by supporting both other flora and fauna. They provide conducive environment through which grasses and shrubs thrive and they also help to stabilise the soils preventing erosion. The trees are also a habitat and source of food for fauna like birds and insects and also support pollinators like bees and butterflies through their flowers. Removal of these trees will make the fauna vulnerable to predators and environmental stress. Loss of shrubs and grasses will affect habitats for small animals and hence leading to their population decline. The degradation of vegetation on the site will disrupt the

ecosystem through soil erosion, habitat loss, water cycle disruption and biodiversity reduction which negatively affects flora and fauna that depends on them for survival.

Mitigation measures:

- i. Confine bush and land clearing activities to the project area and minimise habitat destruction;
- ii. Replant the indigenous species in the sites to offset the impacts.
- iii. Clearly mark out the extent of clearing within the worksite area with pegs at 10m intervals or less; and
- iv. Avoid introducing invasive species or any other exotic plant and animal/fish species into the area through any other possible means.

5.4.5.15 Increased Risk of Soil Contamination due to improper handling and disposal of construction materials, such as oils, fuels, and solvents.

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.

Mitigation measures:

- i. Prepare and implement a Construction Waste Management Plan (CWMP) for the project;
- ii. Segregate hazardous waste from non-hazardous waste;
- iii. Develop a spill prevention plan, of which must contain measures for secondary containment (at least 120% volume capacity);
- iv. Provide a hazardous waste storage area that has an impermeable floor and containment, and has adequate ventilation of capacity to accommodate 100% of the volume of the largest waste container;

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

During construction we should envisage traffic disruptions caused by increased vehicle movement within the vicinity of the site, road closures, 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.

Suggested mitigation measures

- i. Implementation of traffic management plan
- ii. Barricading the work area

5.4.5.17 Increased risk of incidents and accidents to the students

During construction, there is a risk of incidents and accidents involving students, especially if the site is near schools or areas they frequently pass through. Open excavations, moving machinery, and unsecured materials can pose serious safety hazards. Children may unknowingly enter unsafe zones out of curiosity, leading to potential injuries.

Suggested mitigation measures

- i. The construction area should be securely fenced,
- ii. installation of warning signs clearly posted, and safety personnel deployed to monitor access. Additionally,
- iii. awareness sessions can be held in nearby schools to educate students about the dangers and encourage them to stay away from the site.

5.4.4.18 Increased risk of Water Contamination from improper disposal of Construction waste

The project may increase the risk of water contamination due to improper disposal of construction waste such as cement slurry, oils, paints, solvents, and other hazardous or non-biodegradable materials. If these wastes are discharged into nearby water bodies, drainage systems, or onto bare ground, they may leach into surface or groundwater sources, leading to environmental degradation and posing health risks to nearby communities that rely on these water sources.

Suggested mitigation measures

- i. the contractor shall designate appropriate waste disposal areas and ensure all construction waste is sorted and disposed of at approved waste management facilities.
- ii. Train workers on immediate spill containment and reporting procedures.

5.4.6 Operation phase Negative Impacts

5.4.6.1 increased risk of 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.

Mitigation measures:

- i. Adequate number of portable fire extinguishers shall be placed at strategic locations.
- ii. Good housekeeping shall be maintained at all sites to reduce the fire risk.
- iii. install fire prevention and control measures e.g fire extinguishers and fire hose reel.
- iv. The design of the facilities shall strictly adhere to the Fire Safety Standard

5.4.6.2 Increased generation of solid waste

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

Mitigation measures:

- i. Provide colour coded waste receptacles for organic, plastic and glass waste;
- ii. Conduct lesson plans for learners on solid waste management;
- iii. Implement a hazardous waste management plan as shown in annex 13
- iv. Excavate a 36 cubic meter compost pits for disposal of organic waste to make compost manure that can be used in the college flower beds.

5.4.6.3 Increased risk to STIs, HIV and AIDS

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

Mitigation measures:

- i. Develop and implement an HIV and AIDS policy and a prevention, treatment, care and support programme;
- ii. Sensitize staff and learners on HIV and AIDS prevention;
- iii. Make condoms available to workers in strategic areas;
- iv. Distribution of Information, Education and Communication (IEC) materials on STIs including HIV and AIDS.

5.4.6.4 Increased demand for power

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

Mitigation Measures:

- i. 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
- ii. Encourage utilisation of building design that uses passive solar design to take advantage of natural sunlight and airflow.

5.4.6.5 Increased demand for water

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.

Mitigation Measures:

- i. Install Water-saving equipment, including ultra-low-flush toilets, spray nozzles, urinals, faucet aerators, and low-flow showerheads, and pressure-control valves; and
- ii. Post notices to encourage the sparing use of water

5.4.6.6 increased generation of liquid waste

The construction and operation phases of a project can lead to increased generation of liquid waste from activities such as cleaning, sanitation, and equipment maintenance. If not properly managed, this waste can contaminate soil and water resources, posing health risks to workers and nearby communities.

Suggested Mitigation measures

- i. proper waste management systems should be implemented, including the installation of sealed and lined wastewater collection points,
- ii. use of soakaways or septic tanks for domestic wastewater, and regular maintenance of sanitation facilities. Additionally,
- iii. training workers on safe waste disposal and ensuring that hazardous liquids like oils or chemicals are stored and disposed of correctly will help prevent environmental contamination.

5.4.6.7 Increased generation of hazardous waste

During the operation, activities such as equipment maintenance, laboratory use, and handling of chemicals may lead to increased generation of hazardous waste, including used oils, solvents, expired chemicals, and electronic waste. If not properly managed, these materials can pose serious environmental and health risks through soil and water contamination or air pollution.

Suggested mitigation measures

- i. hazardous waste should be properly labeled,
- ii. store in secure and designated areas and disposed of through licensed waste management service providers.
- iii. Staff should be trained on safe handling procedures, and spill response plans should be in place to address accidental releases.
- iv. Regular monitoring and proper documentation of hazardous waste generation and disposal will ensure compliance with environmental regulations.

5.5 Description of site-specific Identified Impacts

5.5.1 Operation phase positive impacts

5.5.1.1 Improved knowledge on new Agriculture Innovations ie green house

The greenhouses at Phwezi technical college will enhance practical learning by providing students with hands-on experience in modern farming techniques, including climate-smart agriculture, pest control, and resource-efficient crop production. This will improve the quality of agricultural education and equip learners with relevant skills for employment or entrepreneurship in the agriculture sector. Additionally, greenhouses will support year-round production, enabling continuous training without seasonal interruptions. As a result, the project will contribute to increased agricultural knowledge, improved food security, and greater opportunities for youth empowerment and income generation.

Enhancement measures

- i. Partner with agricultural research institutions for technical support and updated training content.

- ii. Set up a monitoring system to track student progress and adjust training methods as needed.

5.5.2 Construction phase negative impact

5.5.2.1 Air Pollution from Animal Waste Odors from khola

The operation of animal cages (livestock enclosure) at Kasama Community Technical College in chitipa within the institution premises has the potential to contribute to localized air pollution, primarily through the release of unpleasant odors from the accumulation of animal waste.

Suggested mitigation measures

- i. Remove manure and soiled bedding daily to prevent odor buildup.
- ii. Store waste in covered, ventilated bins or a designated compost area away from classrooms/residential zones.
- iii. Convert manure into compost using aerobic decomposition (turning piles regularly) to reduce foul smells.

5.5.2.2 Disturbance of operations of Graveyard near by

The construction works may lead to the disturbance of an existing graveyard near the project site i.e., at Phwezi Technical College. Hence, the project engaged local leaders and community representatives for effective consultations to ensure cultural sensitivity and community involvement. As part of the mitigation measures, the graveyard area will be clearly demarcated and barricaded to prevent accidental disturbance during construction activities.

Suggested mitigation measures

- i. Physical Barriers: Install sturdy fencing, signage, and buffer zones to prevent encroachment.
- ii. Develop and implement a Chance find procedures as part of the contractors ESMP, of which will comply with the national heritage regulations.
- iii. Worker Sensitization: Train construction staff on the cultural importance of the site and enforce strict no-disturbance policies.

5.6 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
5.4.1	Planning and Design Phase Positive Impacts							
5.4.1.1	Creation of employment opportunities (architects, engineers, and other experts)	Maximise employment of professionals registered with relevant Malawian institutions and authorities.	Throughout the planning and design phase	5,000,000	Percent of Malawian professionals hired	Once after recruitment of consultants	Responsible Institution; SAVE PIU	Ministry of Education and Ministry of Labour
		Give equal employment opportunities to both men and women;			Percent of females hired			
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	5,000,000	Number of consultation meetings conducted	Once before acceptance of design reports from consultants	Responsible Institution SAVE PIU	MoE

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 commencement date as well as inform them of the grievance mechanism and labour policy; and			Number of meetings conducted			
		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			
5.4.2	Construction phase positive impacts							

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	Responsible Institution; 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			number of people employed for both men and women			
		Ensure salaries and wages to be paid to the local employees are above the minimum stipulated Government wages			Percentage of workers paid above minimum wages			

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
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	Percentage of construction materials and supplies procured from approved small-scale businesses	Quarterly during the construction phase	Contractor	Responsible Institution SAVE: PIU(Procurement Expert)
		Where practically possible ensure that locally produced materials are given priority over imported materials; and			Number of local small-scale suppliers engaged			

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

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Formalise on-the-job trainings for local unskilled labour that also includes learning targets and performance monitoring.						
5.4.2.4	Increased Student development and Exposure to Practical Training Opportunities	Pair experienced artisans, supervisors, and engineers from the project with students for mentorship programs, offering guidance on technical skills, safety protocols, and project management.			Number of mentorship pairings between professionals and students	Quarterly during the construction phase	Contractor, Responsible Institution;	Responsible Institution; SAVE PIU (Environmental and Social Experts)

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Establish knowledge-sharing platforms through seminars, open days, and site visits for students even after project completion.			Number of technical seminars, open days, or site visits held			
5.4.3	Operation Phase Positive Impacts							
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	Responsible institution Management	TEVETA

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		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	Responsible institution Management; SAVE PIU

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		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	Responsible institution Management	TEVETA
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	Responsible institution Management	TEVETA

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		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 professional development workshops			
		Implement a system for regular feedback from students and instructors to identify areas for improvement in the facilities and training programmes.			Number of feedback reports received, and actions taken.			

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
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	after construction	Design consultant	Responsible institution Management; SAVE PIU
		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		Improvements in water supply, sanitation, and electrical systems			

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Ensure provision for safe access and utilisation of facilities by people with disabilities, aligning with ESS10 on Stakeholder Engagement and ESS4 on Community Health and Safety.	Design Phase		Inclusion in facility designs			
5.4.3.4	Enhanced capacity building	include training programs for selected instructors	during operation Phase		number of training conducted			
		monitor and evaluate training effectiveness through feedback			number of assessments			
5.4.3.5	Clean energy	collaborate with other institutions to deliver high quality trainings for instructors	ongoing during operation		number of training conducted			

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		offer theoretical and practical trainings to students			number of students trained			
5.4.3.6	Increase income generation from greenhouse produce and livestock	train staff and students in climate smart agriculture practices	ongoing during operation		number of trained staff and students			
		partner with local markets to ensure reliable buyers	ongoing during operation		amount of profit			
5.4.4	Negative Impacts during planning and design phase							
5.4.4.1	Increased risk of accidents and exposure to hazardous material in all the sites. Main emphasis to be dwelt on Phwezi, Mangochi, Kasungu, SOS Technical	Develop Occupational Safety and Health (OSH) guidelines, which will aim to avoid, minimise, and mitigate the risk of workplace accidents;	during construction	MK200,000	Number of documentation of safety guidelines	Monthly	contractor	supervising consultant

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
	colleges and MACOHA	Provide PPE and enforce its use		MK2,000,000	number workers wearing ppe			
		Provide OSH orientation training and hazard specific training		MK200,000	number of OSH trainings			
5.4.4.1	Disruption of the Provision of Education Services	Allocate specific areas away from classrooms for storing construction materials, ensuring these areas do not interfere with educational activities.	Before construction phase starts	MK200,000	Number of designated storage areas	Monthly	Contractor	Supervising Consultant
		Use temporary structures or secure outdoor spaces for storage to avoid using indoor educational facilities.	Before construction phase starts	MK100,000	Number of temporary structures used			

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

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility	
		Implement dust suppression measures such as water spraying and covering materials to minimise dust generation.	During construction phase	MK200,000	Air quality measurements				
		Establish regular communication channels between the construction team and the college administration to coordinate activities and address concerns promptly.	Ongoing	MK50,000	Number of meetings held				College Administration
		Inform the college community about the construction schedule, potential disruptions, and mitigation measures in place.	Before construction phase starts	MK50,000	Information dissemination frequency				
5.4.5	Negative impacts during construction phase								

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
5.4.5.1	Disruption of provision of education services	implement duct control measures	Ongoing during construction phase	MK2,000,000	frequency of water spraying per day	weekly	contractor	supervising consultant
		barricading the work area			number of incidents recorded			
5.4.5.2	Increased Risks of GBV, SEA, and Defilement	Develop an induction program including a code of conduct for all workers which they will be required to sign prior to starting their work.	Before construction phase starts	MK50,000	Existence of induction program; number of signed codes of conduct	Before construction begins	Contractor	Supervising Consultant
		Ensure a copy of the code of conduct is presented to all construction workers and signed by each of them.	Before construction phase starts	MK50,000	Number of signed codes of conduct	Before construction begins		
		Implement a GBV management plan as presented in Annex 3.	During construction phase	MK250,000	Existence and implementation of GBV management plan	Before construction begins		

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Provide clear, trusted, and responsive channels for filing GBV/SEA/SH cases to the police or other relevant government authorities.	Ongoing during construction phase	MK150,000	Number of reported cases; resolution time	Monthly		
		Set up a confidential and accessible grievance mechanism for reporting GBV, SEA, and other concerns, ensuring it is well-publicised within the community and schools.	Ongoing during construction phase	MK50,000	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	MK100,000	Number of training sessions conducted; participant feedback	Monthly		

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Ensure prompt investigation and resolution of reported incidents, with appropriate disciplinary actions for perpetrators.	Ongoing	MK150,000	Number of incidents investigated; resolution time	Monthly		
		Encourage the recruitment of female workers and ensure equal employment opportunities in the construction project.	Ongoing	MK100,000	Number of female workers recruited	Monthly		
		Provide a safe and supportive work environment for female employees.	Ongoing	MK100,000	Employee satisfaction surveys; number of reported incidents	Monthly		
5.4.5.3	Community Health and Safety Risks	Develop and implement a Traffic Management Plan using guidance provided in Annex 11.	Before construction starts	MK5,000,000	Traffic Management Plan in place	Weekly	Contractor	Supervising Consultant; PIU E&S Expert

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Employ flaggers and traffic wardens to direct traffic during critical periods of construction.	During construction phases	MK200,000 /month	Flaggers and wardens deployed during peak times	Weekly		
		Ensure safe pedestrian movement by installing well-marked crossings and signage near the site.	Before construction starts	MK250,000	Crossings and signage installed	Weekly		
		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	MK1,000,000	Safety barriers installed	Weekly		
		Hire transporters with valid CoF and appropriately licensed drivers.	Throughout construction	MK200,000 /month	Transporters comply with CoF and licensing	Monthly		

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Ensure construction vehicles observe a 20 km/hr speed limit on the hospital campus.	Throughout construction	MK150,000	Speed limit signs installed and observed	Monthly		
5.4.5.4	Increased incidences of child labour	During the recruitments of the construction workers, use national identification cards to ascertain the age of the prospective workers.	Ongoing during construction phase	MK0	Compliance with labour regulations	As needed	Contractor	Supervising Consultant; PIU E&S Expert
		Ensure that all contractors and subcontractors adhere to local and international labour laws prohibiting child labour.	Ongoing during construction phase	MK0	Compliance with labour regulations	As needed		

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Strategically, erect signage, which are three metres high, with prevention of child labour messages at construction sites	Ongoing during construction phase	MK1,500,000	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	K750,000	Number for uptake systems in place	Weekly		
5.4.5.5	Increase in Deterioration of Air quality	Plan construction works to minimize dust, avoid windy periods	Before demolition start	MK0 (Operational cost)	Reduced dust levels during demolition	Weekly	Contractor	Supervising Consultant; PIU E&S Expert
		Wet down entire construction area periodically, wherever possible.	Throughout excavation and construction works	MK0 (Operational cost)	Regular wetting schedule maintained	Daily		
		Transport particulate materials with adequate load cover	During material transport	MK150,000	Properly covered loads observed	Weekly		

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Unload powdery materials using drop-height regulation equipment to minimize air contamination in line with ESS3 guidelines.	During material unloading	MK150,000	Minimal dust observed during unloading	Weekly		
		Regular maintenance of vehicles, avoid old vehicles emitting black smoke	Throughout construction	MK150,000	Emission levels within acceptable limits	Monthly		
5.4.5.6	Increased in noise levels from machinery and construction activities mainly for Phwezi, Mangochi, Kasungu, SOS Technical colleges and MACOHA	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		

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		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		

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
5.4.5.7	Increased Occupational Accident and Injuries mainly for Phwezi, Mangochi, Kasungu, SOS Technical colleges and MACOHA	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. Implement a hazardous waste and materials management plan	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 OHS 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			

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		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			
5.4.5.8	Increase the risk of discriminatory working conditions	Treat employees in compliance with the Malawi Labour Regulations and labour and working conditions as per World Bank ESS 2.	Ongoing during 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			

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		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			
5.4.5.9	Increased risk of infectious diseases (spread of STIs, HIV and AIDS.)	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

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		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-19, HIV and AIDS prevention, and cholera.	Ongoing	250,000	Number of IEC materials distributed; worker awareness	Monthly		SC; PIU E&S Expert

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Provide necessary PPE and other materials (e.g. cloth masks, hand sanitizers, hand-washing facilities) to help prevent construction workers from contracting and spreading Covid-19 at the workplace.	Ongoing	150,000	Availability and usage of PPE; compliance with health protocols			SC; PIU E&S Expert

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
5.4.5.10	Increased generation of solid wastes, spills, and effluent	<p>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.</p> <p>Install fire prevention and control measures e.g fire extinguishers and fire hose reel.</p> <p>Implement a Hazardous waste and materials management plan</p>	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

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		<p>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.</p>	Before construction phase starts	50,000	Number of waste disposal sites identified; compliance with disposal protocols	Weekly		SC; PIU E&S Expert

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		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
		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

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		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
5.4.5.1 1	Increased Electricity Consumption	Promote energy-efficient practices.	Ongoing during	10,000,000	Percentage of energy from renewable	Monthly	Contractor	Supervising Consultant

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Utilize renewable energy sources such as solar panels for providing temporary power on-site, reducing reliance on diesel generators.	the construction phase		energy sources			nt; PIU E&S Expert
		Train workers on energy-saving practices and the importance of reducing energy consumption.		500,000	Number of workers trained			
		Use of fuel-efficient vehicles and machinery.		5,000,000	Amount of fuel used			
		Optimise logistics to minimise transportation distances and fuel consumption.						
5.4.5.1 2	Increased in Water Consumption	Implement water-saving measures.	Ongoing during construction phase	300,000	Amount of water used	Monthly	Contractor	Supervising Consultant; PIU

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Source non-potable water from water bodies within a 2 km radius for construction purposes, ensuring it does not affect hospital water supplies.			Amount of non-potable water used			E&S Expert
		Reuse water where possible e.g. use greywater for dust suppression and sanitation purposes			Amount of water reused			
		Monitor and minimize water wastage.			Water usage records			

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
5.4.5.1 3	Increased Soil Erosion and Sedimentation due to earthworks and site clearing mainly for Ntchisi, SEEI,	Protect all areas susceptible to erosion by construction of storm water drains and redirecting stormwater to reduce run-off water on stripped soils;	Throughout the construction phase	750,000		Throughout the construction phase	Contractor	SC; PIU E&S Expert
		Avoid deposits of loose spoils near waterways;						
		Segregate topsoil for reuse during restoration of exposed soil areas and reuse native soil to backfill trenches;						
		Compact all loose soils and surfaces within the work site; and						

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Protect soil mounds with tarps or banding around the mounds with a minimum height of 0.5 m from the ground.						
5.4.5.14	Degradation of Vegetation and Habitat Loss impacting local flora and fauna mainly for Phwezi, Ezondweni, Kasama, Mbulunji, Miracle, Solar Ebergu and Ecologu Institutue, Sonda, Mangochi, Ntchisi, Kasungu, SOS and MACOHA	<p>Confining land clearing to worksite;</p> <p>Planting of trees will be done with guidance from the District Forestry Office, which will educate learners and the community on tree planting and management, and choice of tree species</p>	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
	Loss of Fauna and habitat for fauna	<p>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.</p> <p>Avoidance of ecologically sensitive microhabitats during site planning</p> <p>Habitat restoration (e.g., replanting native species) post-construction</p>			<p>Number of species impacted,</p> <p>Area of habitat restored,</p>			
5.4.5.1 5	Increased Risk of Soil and Water Contamination due to improper handling and disposal of construction	<p>Conduct soil testing before and after construction to monitor contamination levels.</p> <p>Implement a hazardous waste and materials management plan</p>	Annually	200,000		Annually	Contractor	SC; PIU E&S Expert

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

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
5.4.5.1 6	Traffic Disruptions due to the movement of construction vehicles could lead to traffic congestion mainly for Phwezi, Mangochi, Phwezi, Kasungu, SOS Technical colleges and MACOHA	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
5.4.5.1 7	Increased risk of accidents and incidents to students	the construction area should be barricaded Install fire prevention and control measures e.g fire extinguishers and fire hose reel. installation of warning signs		MK2,000,000	perimeter area securely fenced number of signage installed	Weekly		

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
5.4.5.18	Increased risk of water contamination	designated area for waste disposal site		MK1,000,000	number of waste disposal area designated	Monthly	Contractor	supervising consultant
		Train workers on spill management			Number of trainings conducted			
5.4.6	Operation phase Negative Impacts							
5.4.6.1	Increased risk to fire hazards	Adequate number of portable fire extinguishers shall be placed at strategic locations.	Biannually during operation phase	1,200,000	Percentage of operational extinguishers	Biannually during the operation phase	Responsible institution	MoE; TEVETA
		Good housekeeping shall be maintained at all sites to reduce the fire risk. Install fire prevention and control measures e.g fire extinguishers and fire hose reel.			Number of incidents			

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		The design of the facilities shall strictly adhere to the fire safety standards.						
		Fire detectors and a sprinkler system shall be installed in all the buildings.			Fire detectors and sprinkler system in place			
5.4.6.2	Increased generation of solid waste	Provide colour coded waste receptacles for each room for organic, plastic, and glass waste; Install fire prevention and control measures e.g fire extinguishers and fire hose reel.	Annually during operation phase	800,000	Availability of waste receptacles	Annually during the operation phase	Responsible institution	MoE; TEVETA
		Conduct lesson plans for learners on solid waste management;			Training records			

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Excavate a 36 cubic metre compost pits for disposal of organic waste to make compost manure that can be used in the college flower beds; and			Amount of waste collected and properly disposed			
		In consultation with Lilongwe District Council, identify a waste disposal site for non-degradable waste.						
5.4.6.3	Increased risk to STIs, HIV and AIDS	Develop and implement an HIV and AIDS policy and a prevention, treatment, care and support programme;	Annually during operation phase	1,500,000	Availability of prevention programme	Annually during the operation phase	Responsible institution	MoE; TEVETA
		Sensitise staff and students on HIV and AIDS prevention;			Percentage of people sensitised			

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		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.			Number of toilets with condoms made available			
5.4.6.4	Increased demand for power	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	Annually during operation phase	300,000	Amount of energy consumed	Annually during operation phase	Responsible institution	MoE; TEVETA

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		Encourage utilisation of building design that uses passive solar design to take advantage of natural sunlight and airflow.						
5.4.6.5	Increased demand for water	Install Water-saving equipment, including ultra-low-flush toilets, spray nozzles, urinals, faucet aerators, and low-flow showerheads, and pressure-control valves; and	Annually during operation phase	300,000	Volume of water used	Annually during the operation phase	Responsible institution	MoE; TEVETA
		Post notices to encourage the sparing use of water.						
5.4.6.6	Increased generation of liquid waste	proper waste management system should be implemented		MK500,000	Number of wastewater collection points		Contractor	
		use of soak way and septic tanks						
5.4.6.7	Increased generation of hazardous waste	labelling of hazardous waste Implement a hazardous waste management plan as shown in annex 13	Operational phase	MK200,000	number of containers collected Hazardous waste	Monthly	Contractor	Institution Management

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
		training staff of hazardous waste handling Develop and implement an Emergency Preparedness and Response Plan (EPRP)			management plan in place Number of training conducted and percentage of laboratory technicians trained EPRP in place			
5.5.6.8	Air pollution from animal waste odour	Remove manure and soil bedding daily convert manure to compost	Operational phase	MK100,000	frequency of manure removal number of compost piled	Weekly	Responsible institution	TEVETA

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
5.5.6.9	Disturbance of Graveyard site mainly at Phwezi Technical College	Clear Demarcation and Barricading of the Graveyard Site	Before construction phase starts	MK100,000	Number of inspections conducted to verify the integrity and visibility of the graveyard demarcation and barricades.	Monthly	Contractor	Supervising Consultant, Institution Administration, SAVE PIU
		Continuous Engagement with Community and Traditional Leaders	Ongoing	MK50,000	Number of consultation meetings held with local leaders and community representatives regarding graveyard site management during the construction period.			Supervising Consultant, School Administration, SAVE PIU
5.5.6.9	Loss of land for various activities (mainly at	Provide alternative land in compensation of the loss before the	Before construction phase starts	MK30,000,000	Number of alternative sites provided	Monthly	Developer	Supervising Consultant,

Impact Code	Impact	Mitigation Measures	Implementation Period	Implementation Cost (MWK)	Performance Indicator	Monitoring Frequency	Implementation Responsibility	Monitoring Responsibility
	Nthiraseembe (land for bricklaying workshop, loss of accommodation space at MACOHA), loss of storage area at MACOHA)	construction works commence)						Institution Administration, SAVE PIU
	TOTAL COST			67,350,000				

5.7 Site specific impacts identified

The study identified site specific environmental and social impacts which will need to be managed, for the Positive impacts, the impacts are mainly the same, hence, to site specific impacts were identified. For the negative impacts, the following table 5-3 presents the site-specific impacts of the project.

Table 5-5: Site specific environmental and social impacts

Name of institution	Issues/impact	Mitigation measures
Ezondweni Technical College	Loss of trees /vegetation	Measures specified in the Environmental and social management and monitoring plan
	Risk of Soil Erosion	Measures specified in the Environmental and social management and monitoring plan
Kasama Technical College	Loss of trees /vegetation	Measures specified in the Environmental and social management and monitoring plan
	Risk of Soil Erosion	Measures specified in the Environmental and social management and monitoring plan
	Conflicts over use of natural resources especially water	Measures specified in the Environmental and social management and monitoring plan
Mbulunji Technical College	Loss of trees /vegetation	Measures specified in the Environmental and social management and monitoring plan

Miracle College	Technical	Loss of trees /vegetation	Measures specified in the Environmental and social management and monitoring plan
Phwezi College	Technical	Risk of accidents (access to M1 Road) due to construction vehicles	Measures specified in the Environmental and social management and monitoring plan
		Loss of trees	
		Disturbance of access to graveyards mainly during the burial ceremonies	Measures specified in the Environmental and social management and monitoring plan
Solar Energy and Ecology Institute		Loss of trees /vegetation	Measures specified in the Environmental and social management and monitoring plan
		Risks of fire due to malfunctioning of the solar power system	Measures specified in the Environmental and social management and monitoring plan
Sonda college	Technical	Loss of trees/vegetation	Measures specified in the Environmental and social management and monitoring plan
		OHS related incidents and accidents	Measures specified in the Environmental and social management and monitoring plan
		Increased risk of theft and crime	Measures specified in the Environmental and social management and monitoring plan
			Measures specified in the Environmental and social management and monitoring plan
Andiamo College	Technical	Disruption of electricity poles (which are close to the project sites)	Measures specified in the Environmental and social management and monitoring plan
Mangochi College	Technical	Loss of tress /vegetation	Measures specified in the Environmental and social management and monitoring plan
		OHS related incidents and accidents	Measures specified in the Environmental and social management and monitoring plan

	Increased risk of theft and crime	Measures specified in the Environmental and social management and monitoring plan
	Conflicts over use of natural resources such as water and farmland	Measures specified in the Environmental and social management and monitoring plan
Nthirasembe Technical College	Loss of tress and vegetation	Measures specified in the Environmental and social management and monitoring plan
	Loss of land for Brick laying workshop lessons	Measures specified in the Environmental and social management and monitoring plan
	Conflicts over use of natural resources such as water	Measures specified in the Environmental and social management and monitoring plan
Ntchisi Technical College	Loss of soils due to very steep slope of the proposed area	Measures specified in the Environmental and social management and monitoring plan
	Loss of trees and vegetation	Measures specified in the Environmental and social management and monitoring plan
	Increased risk of river siltation	Measures specified in the Environmental and social management and monitoring plan
Kasungu Technical College	Loss of trees and vegetation	Measures specified in the Environmental and social management and monitoring plan
	Disturbance of water quality for nearby stream	Measures specified in the Environmental and social management and monitoring plan
	Risk of theft and crime	Measures specified in the Environmental and social management and monitoring plan
	Loss of land for cultivation and sporting activities	Measures specified in the Environmental and social management and monitoring plan
		Measures specified in the Environmental and social management and monitoring plan
MACOHA Technical College	Loss of trees and vegetation	Measures specified in the Environmental and social management and monitoring plan
	Loss of accommodation for the driver and cleaner	Measures specified in the Environmental and social management and monitoring plan
	Loss of storage area	Measures specified in the Environmental and social management and monitoring plan

SOS College	Technical	Loss of trees and vegetation	Measures specified in the Environmental and social management and monitoring plan
		Risk of injuries to workers and communities	Measures specified in the Environmental and social management and monitoring plan

5.8 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 5-6. The contractor will report to the supervision consultant who reports to the PIU and finally report to the project's steering committee.

Table 5-6: ESMP Implementation Arrangement

Responsible Party	Roles and Responsibilities
SAVE PIU (Environmental and Social Safeguards Specialists) / Responsible institution	<ul style="list-style-type: none"> ● Provide support, oversight, and quality control to field staff working on environmental and social risk management. ● Planning and implementation of ESMP. ● Ensuring that the social and environmental protection and mitigation measures in the ESMP are incorporated into the site-specific Environmental and Social Action Plans. ● Supervise and monitor the progress of contractors' activities. ● Guide construction teams in conducting subsequent monitoring and reporting and in undertaking corrective options. ● Ensure the submission of periodic environmental and social management and monitoring reports to the World Bank. ● External communications with other implementing partners, government ministries and agencies, and non-government organisations on matters of mutual interest related to environmental management under the project development.
MEPA	<ul style="list-style-type: none"> ● Monitor the integration environmental management into the sub-projects implementation. ● Issuing environmental clearance/certificates where necessary ● Provide advise on environmental matters on the project
Supervision Consultant	<ul style="list-style-type: none"> ● Development of a monitoring tool or checklist based on the ESMP and guided by the project's physical layout. ● Develop a monitoring program for the works, targeting specific project working sites, material sites, sensitive environments, social areas, etc. ● Prepare monthly site meetings to involve the Contractor, Client and Stakeholders. ● Monthly reports in addition to continuous communications to the Contractor, Client, Authorities and Stakeholders as situations require. ● The Consulting Engineer will convene monthly meetings for progress reporting by the Contractor and the supervision team.

Responsible Party	Roles and Responsibilities
The Contractor	<ul style="list-style-type: none"> ● Customise the project ESMP and generate a Construction Environmental and Social Management Plan as a tool to guide the implementation and monitoring of indicators. File a copy with the Resident Engineer. ● Procure necessary equipment for environment measurements or engage some appropriate expert personnel for the activity in specific environment quality aspects, including air quality, noise, water, and soil quality, ● Monthly reporting throughout the project period.
District Councils	<ul style="list-style-type: none"> ● Supervise the implementation of ESMP ● Provide permits where necessary

5.9 Training and Capacity Building

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

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

Given the need to raise awareness among project workers and stakeholders at multiple levels, a cascading model will be implemented where information flows from the national level to the field levels as shown in Table 5-7. This approach ensures that training on environmental and social risk management is integrated into the project cycle and operational procedures.

Table 5-7: Proposed Training and Capacity Building Approach

Level	Responsible Party	Audience	Topics / Themes	Estimated Cost (MK)
SAVE project management team and contractors	External Consultant	PIU, Project Staff, Supervising Engineers, Contractors, and	<ul style="list-style-type: none"> ● ESF Requirements ● Roles and responsibilities for 	MK5,000,000

Level	Responsibility Party	Audience	Topics / Themes	Estimated Cost (MK)
		Contractor Workers:	environmental and social issues <ul style="list-style-type: none"> ● Occupational health and safety ● Labour requirements ● Emergency prevention, preparedness, and response arrangements to emergency situations ● Managing GBV/SEA risks 	
Responsible college/institution and surrounding community	Environmental Specialist	Responsible institution Staff, Students, and Local Communities, Particularly Women:	<ul style="list-style-type: none"> ● The function of the GRM and Grievance Redress Committees ● ESF Requirements ● Roles and responsibilities for environmental and social issues ● Emergency prevention, preparedness, and response arrangements to emergency situations ● GBV/SEA provisions and referral pathways 	MK2,000,000

Level	Responsibility Party	Audience	Topics / Themes	Estimated Cost (MK)
			<ul style="list-style-type: none"> Road safety and community health and safety 	

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.

5.10 ESMP Estimated Budget

Table 5-8 lists estimated cost items for the implementation for the ESMP, which have been included in the overall project budget.

Table 5-8: 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
2	Trainings for supervising engineers (venue, travel, refreshments, etc.)	MK2,000,000
3	Trainings for contractors (venue, travel, refreshments, etc.)	MK2,000,000
4	Printing of awareness raising materials / grievance redress materials	MK500,000
5	Personal Protective Equipment	MK4,500,000
6	Cost of obtaining clearances or permits	MK2,500,000
7	Implementation of site-specific ESMPs and other site-specific plans	MK67,350,000
8	Travel and accommodation budget for environmental and social staff site visits	MK1,500,000
	Total	MK85,350,000

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

A separate Stakeholder Engagement Plan (SEP) has been prepared for the Project, based on the World Bank's Environmental and Social Standard 10 on Stakeholder Engagement. This ESMP will be disclosed after approval and disclosures have already been done for the SEP and the Environmental and Social Commitment Plan (ESCP) that have been prepared for this project. Key feedback on this ESMP is provided in Annex 2. 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 (annex 10 which also has contact persons for each institution in terms of grievances). 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 2.

Chapter Six: Conclusions and recommendations

6.1 Conclusions

From the environmental and social assessment conducted for the construction of various structures in 15 Grant-Winning Institutions under TEVETA it is evident that the project potentially has some significant negative impacts, which relate to the surrounding environment and communities. It should be noted, however, that despite the above probable negative impacts, it is possible with adequate design and implementation measures advanced in this report to mitigate the environmental effects and reduce them to acceptable levels. It is recommended that strict monitoring measures be instituted both from engineering and environmental standpoints considering the need to protect the environment while achieving economic development. This will ensure that the project adheres to acceptable practices and standards. The project will bring significant benefits in terms of fostering economic growth. This report provides a view that the project be allowed to proceed on condition that the measures proposed in this report are fully implemented.

6.2 Recommendations

- i. The ESMP must be implemented according to the set schedules and targets in all phases of the project
- ii. SAVE Project must provide resources to facilitate the implementation of the ESMP and the monitoring plan.
- iii. All major stakeholders of the project must be fully engaged and given full access to the premises for purposes of monitoring.
- iv. Responsible monitoring institutions must be provided with resources to monitor the implementation of the ESMP; and
- v. Occupational safety and health issues are critical in projects of this nature as such the SAVE project must provide training in OHS as well as provide adequate resources for successful implementation of the OHS activities.

References

Government of Malawi (1996), Environment Management Act, Environmental Affairs Department, Lilongwe

Government of Malawi (2018). Malawi Malaria Indicator Survey 2017. Ministry of Health, National Malaria Control Programme, Lilongwe, Malawi

Government of Malawi (2018). Malawi AIDS Response Progress Report 2015. National AIDS Commission, Lilongwe, Malawi.

Government of Malawi (1997), Guidelines for Environmental Impact assessment (EIA) in Malawi, Environmental Affairs Department, Lilongwe

Government of Malawi (2016), Local Government (Amendment) Act, Ministry of Local Government and Rural Development

Government of Malawi (2012), Malawi Growth and Development Strategy, 2012 – 2016. Ministry of Economic Planning and Development, Lilongwe

Government of Malawi (1994), National Environmental Action Plan (NEAP), Volume 1, Department of Research and Environmental Affairs, Lilongwe

Government of Malawi (2004), National Environmental Policy, Environmental Affairs Department, Lilongwe

Government of Malawi (1997), National Forestry Policy, Forestry Department, Lilongwe

Government of Malawi (2000), National Gender Policy, Ministry of Gender and Child Affairs, Lilongwe

Government of Malawi (2012), National HIV/AIDS Policy, Ministry of Gender and Constitutional Affairs, Lilongwe

Government of Malawi (2002), National Land Policy, Ministry of Lands, Physical Planning and Surveys, Lilongwe

Government of Malawi (2008), National Sanitation Policy, Ministry of Gender, Lilongwe

Government of Malawi (2005), National Water Policy, Ministry of Water Development, Lilongwe

Government of Malawi (1997), Occupational Safety, Health and Welfare Act, Ministry of Labour, Lilongwe

Government of Malawi (1966), Public Health Act, Ministry of Labour, Lilongwe

Government of Malawi (1994), The Constitution of Republic of Malawi, Lilongwe

Government of Malawi (2016), The Land Acts, Ministry of Lands, Housing and Urban Development, Lilongwe

Government of Malawi (2004), The Liquid Fuels and Gas (Production and Supply) Act, Ministry of Natural Resources and Energy, Lilongwe

Government of Malawi (1988), Town and Country Planning Act, Number 26, Town and Country Planning Department, Office of President and Cabinet, Lilongwe

Government of Malawi (2013), Water Resources Act, Ministry of Irrigation and Water Development, Lilongwe

Government of Malawi (1995), Water Works Act, Ministry of Water Development, Lilongwe

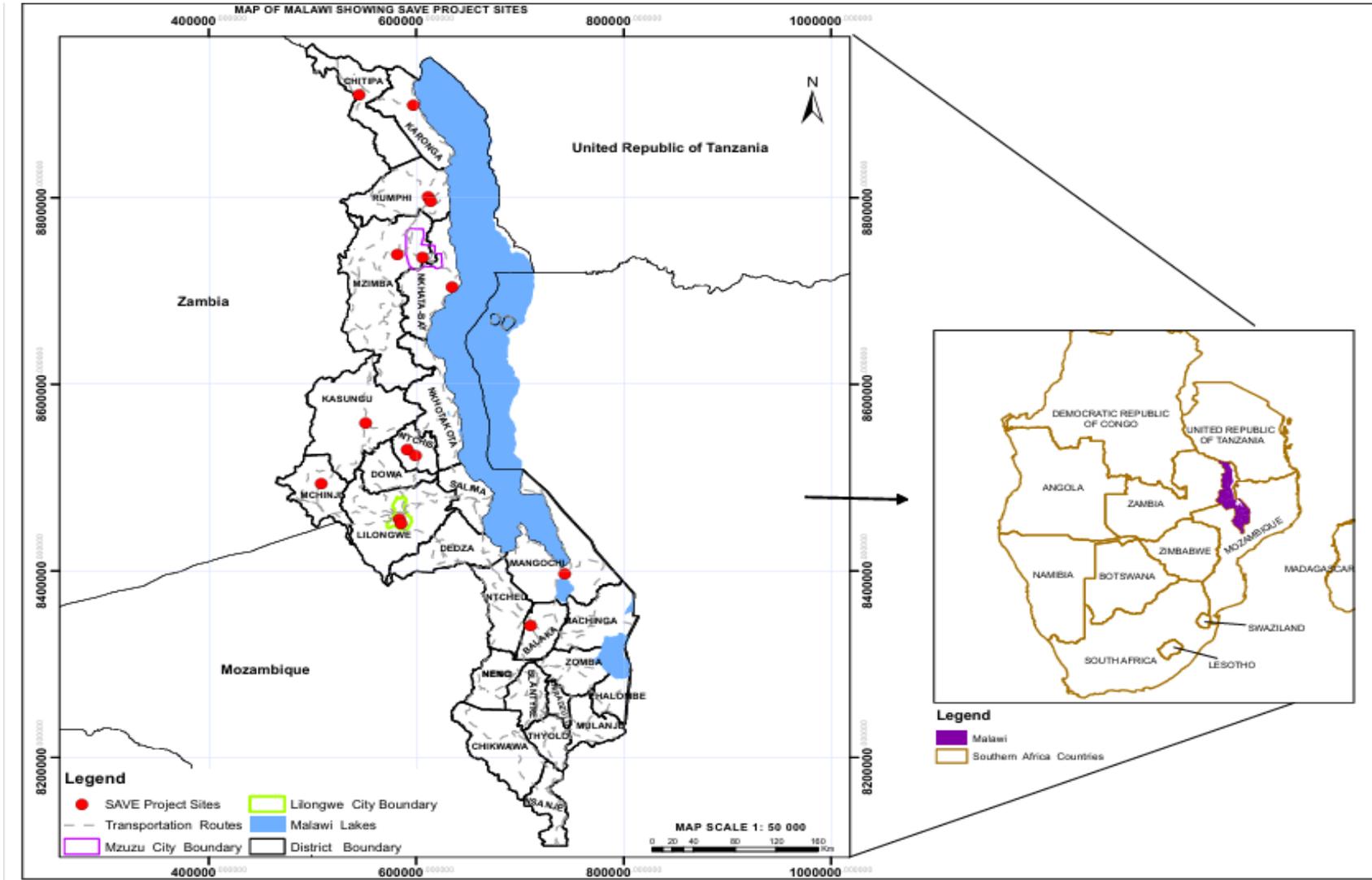
International Finance Corporation (2007), Environmental, Health and Safety Guidelines, General EHS: Occupational Health and Safety

Mambo Michael M., Meki Muna Salih, Tanaka Nobuyuki and Salmi Jamil (2016). Improving Higher Education in Malawi for Competitiveness in the Global Economy. International Bank for Reconstruction and Development / The World Bank. Accessed from the World Wide Web on 15th June 2023:
<https://openknowledge.worldbank.org/server/api/core/bitstreams/bed82a43-95e1-5b35-96ec-a1f086e146dc/content>

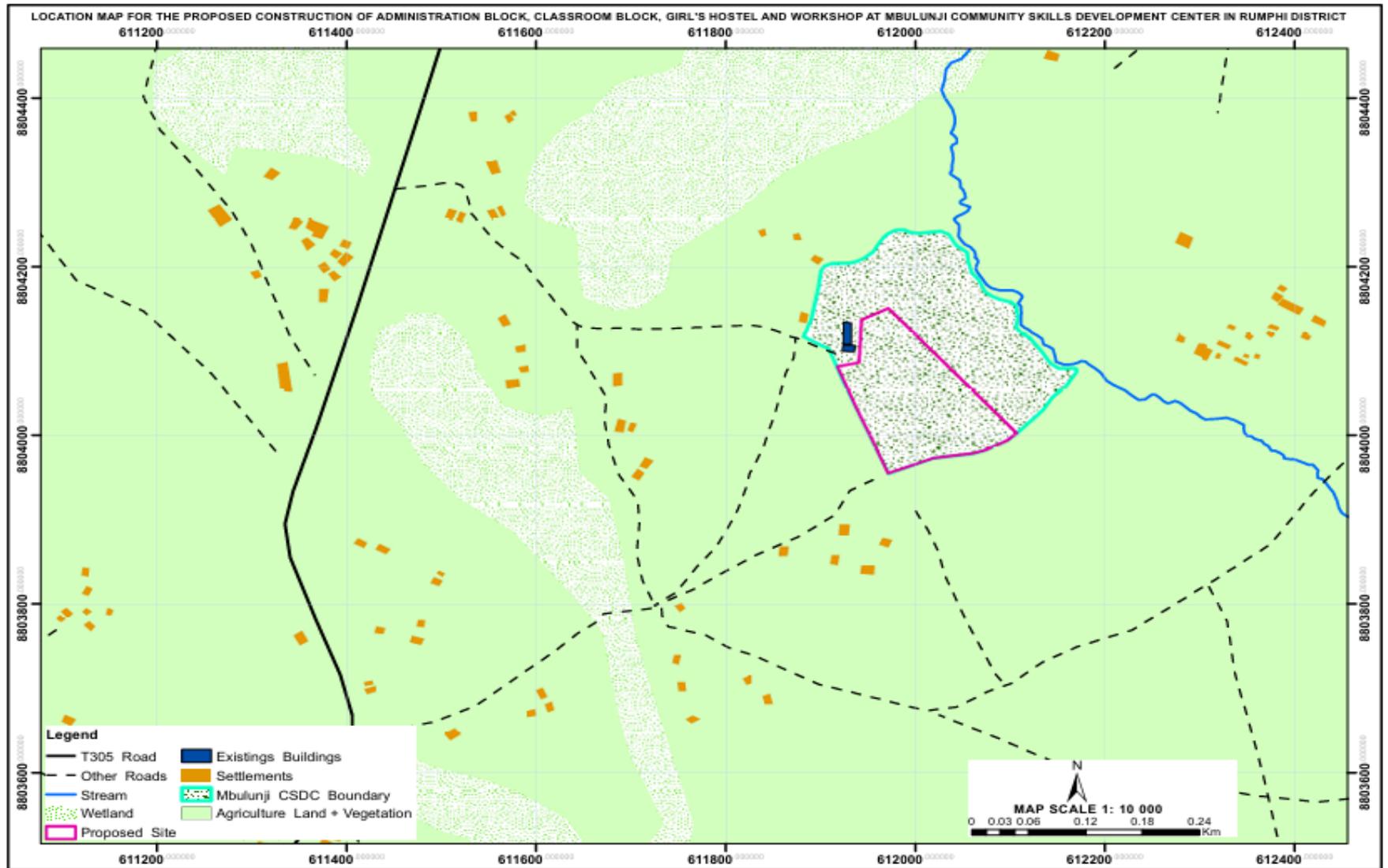
Samati Madalo (2021). Gender-based violence in primary schools: Malawi. Echidna Global Scholar Alumni Brief Series. <https://files.eric.ed.gov/fulltext/ED614033.pdf>

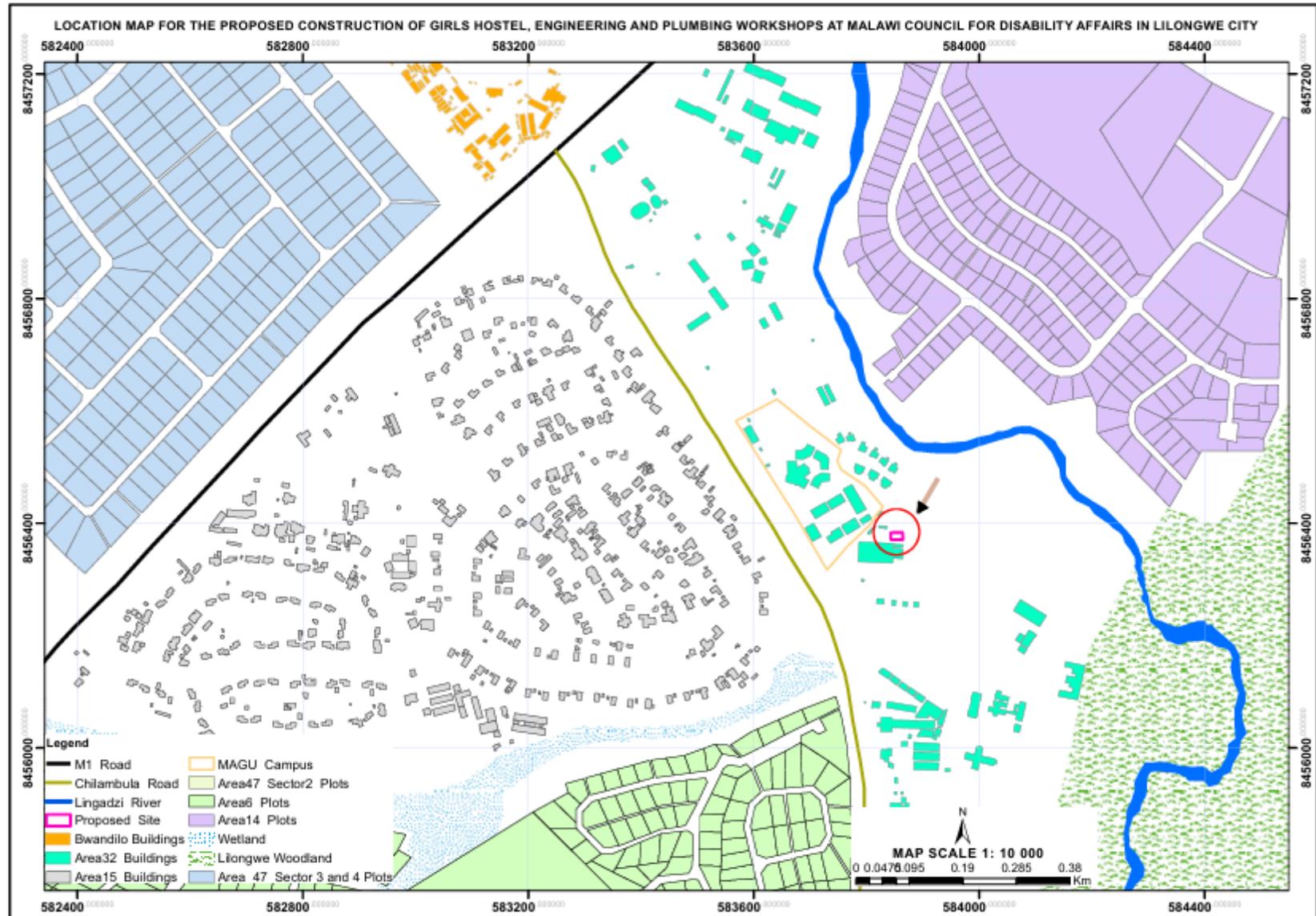
Annex 1: Location Maps

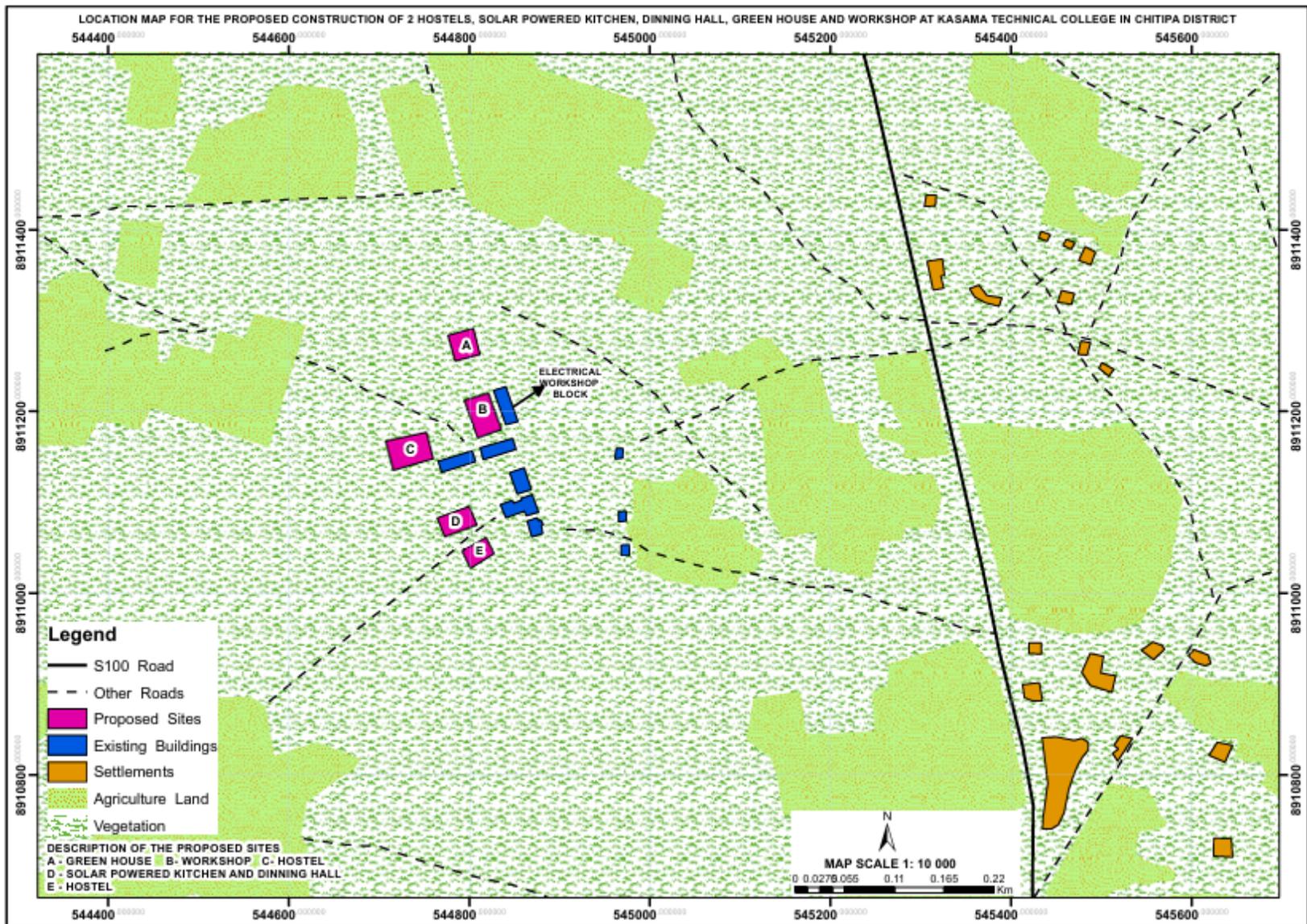
A1.1SAVE project map showing proposed sites

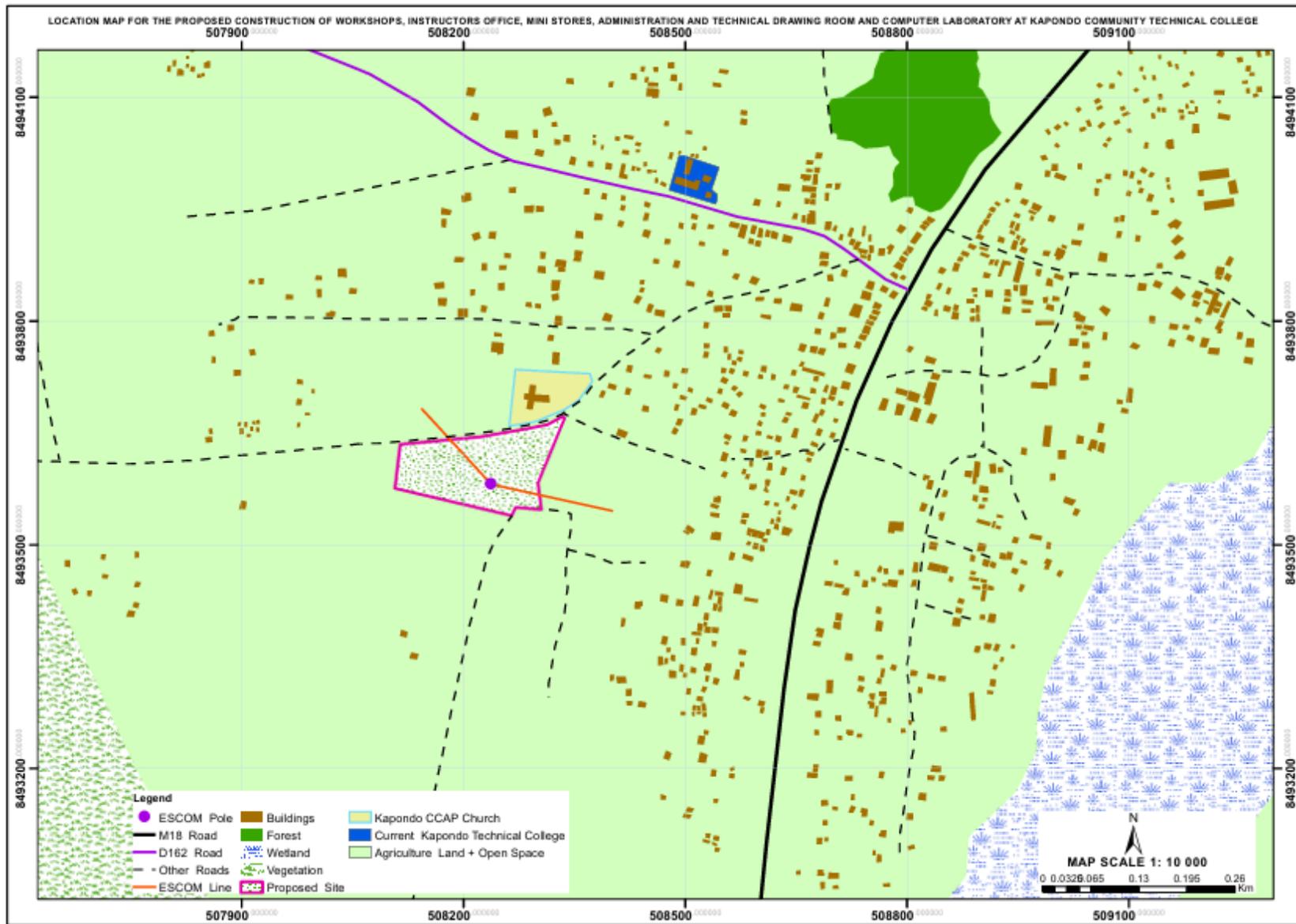


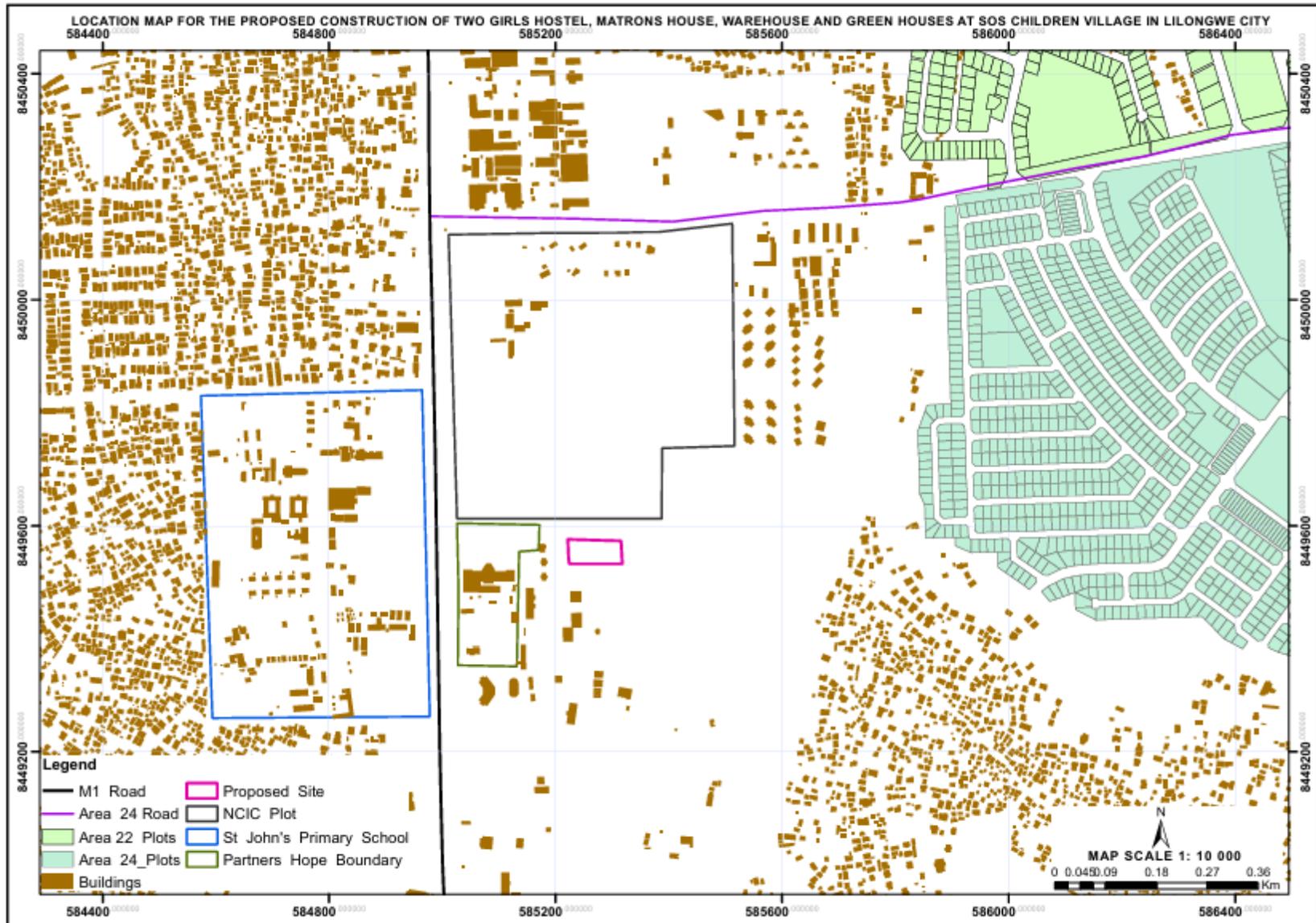
A1.2 Location Maps of the Project Sites

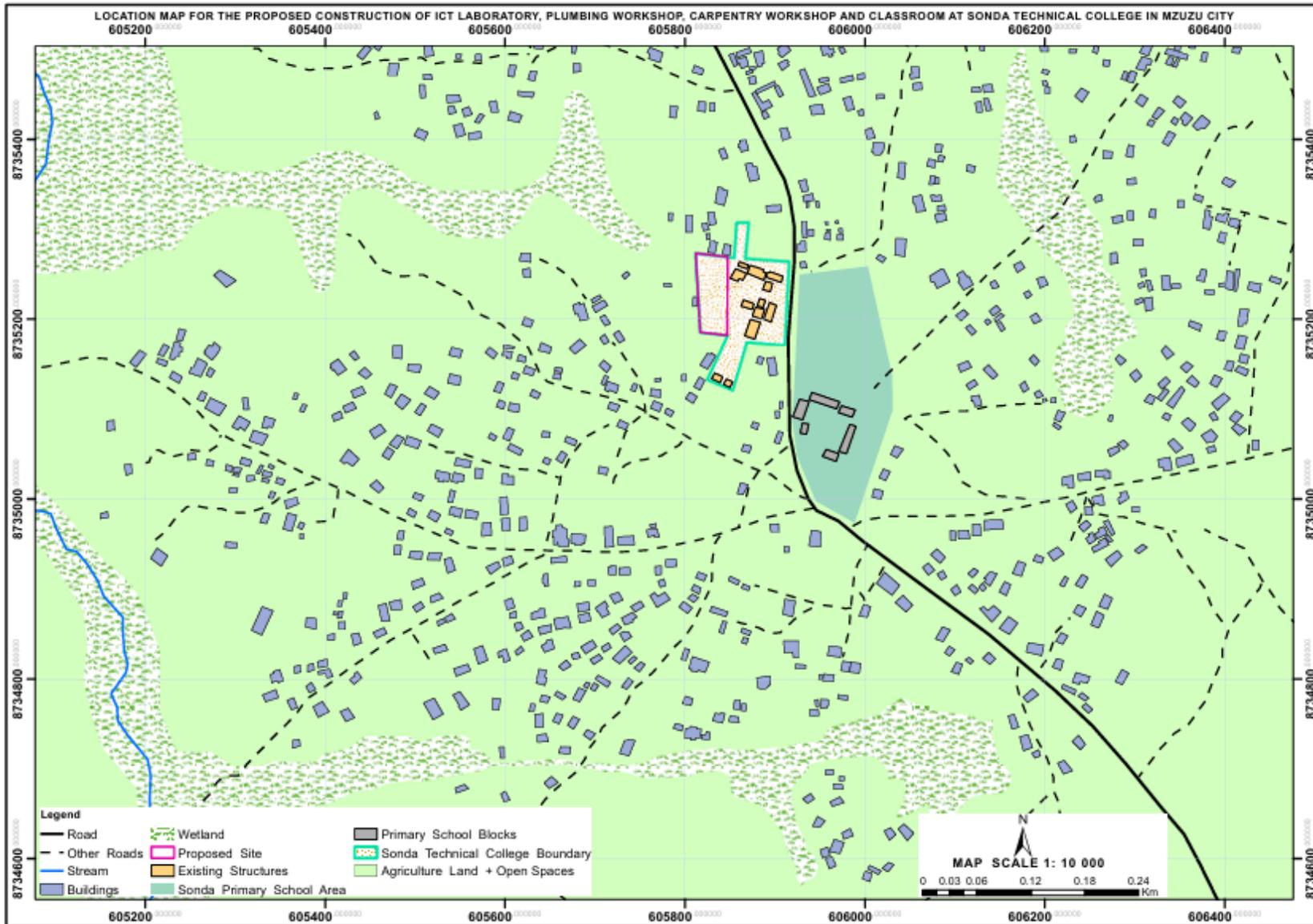


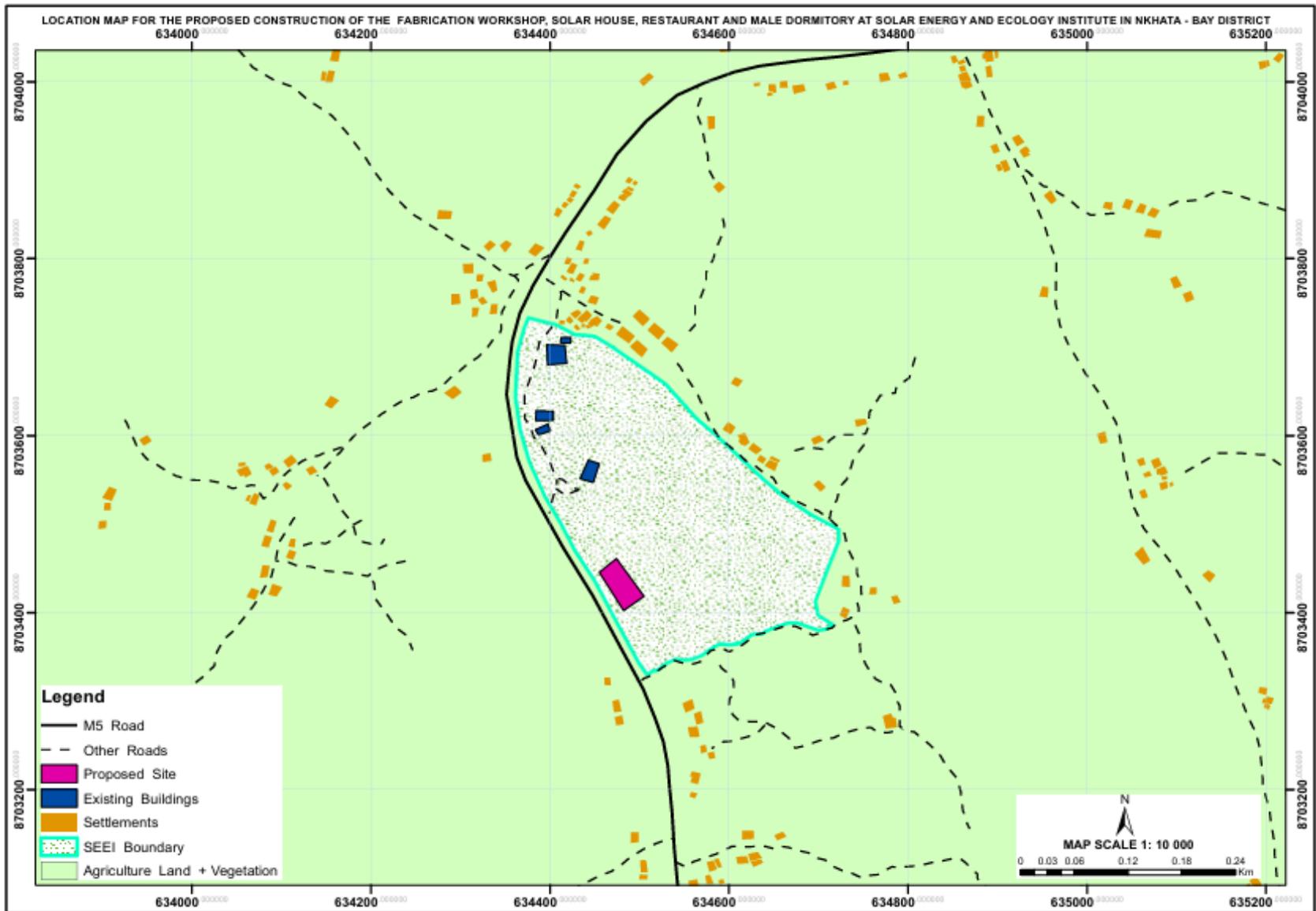


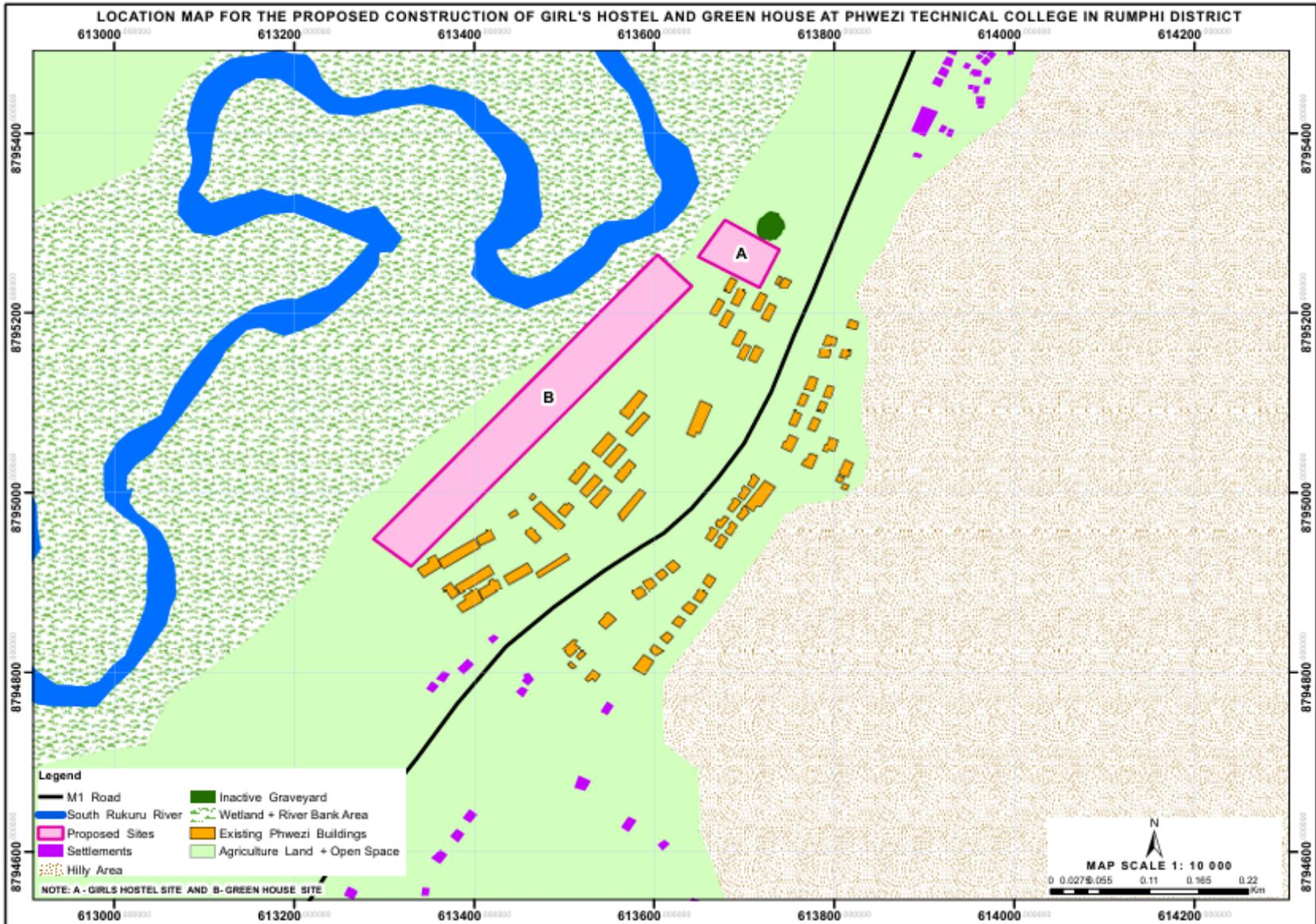


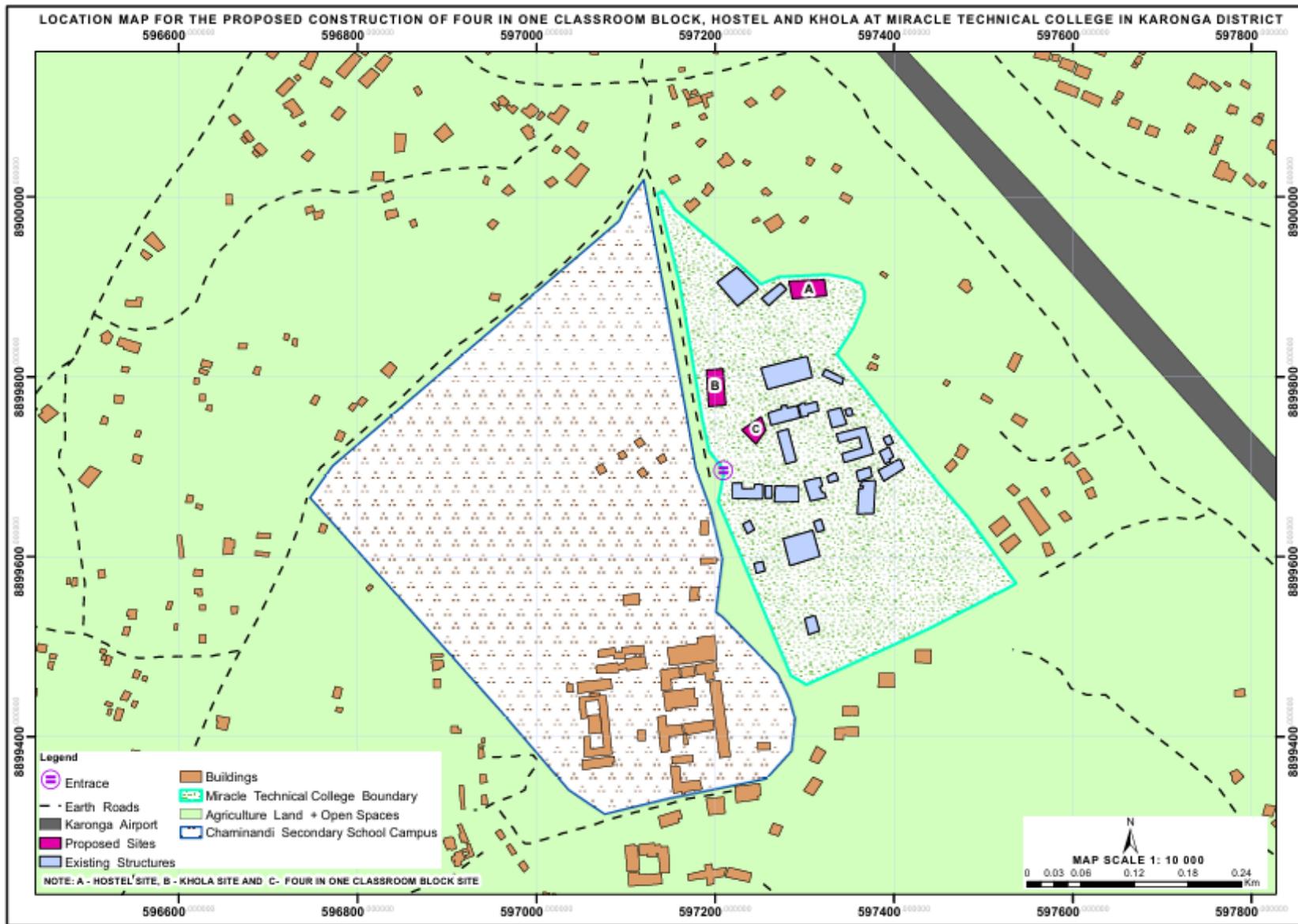




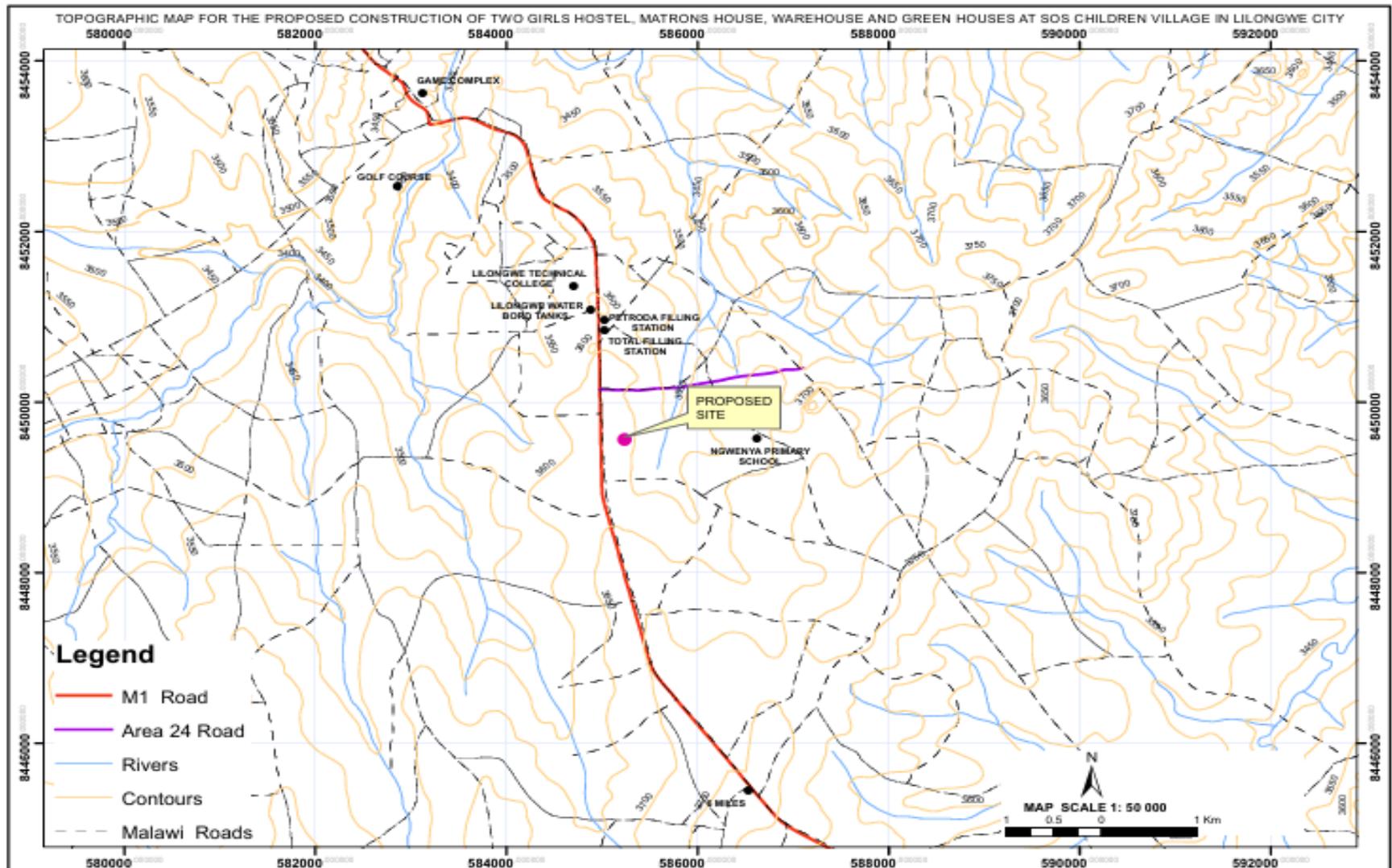


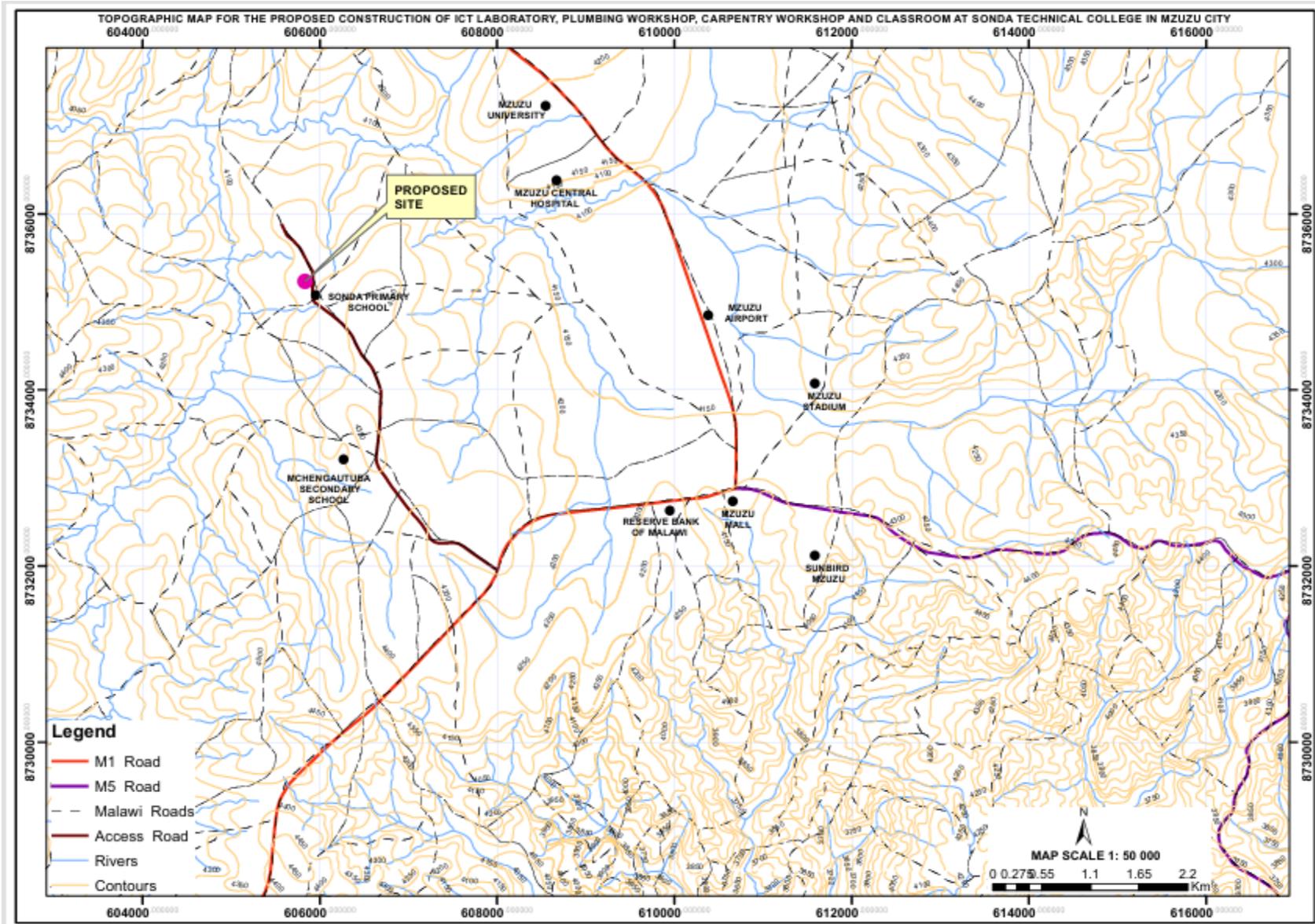


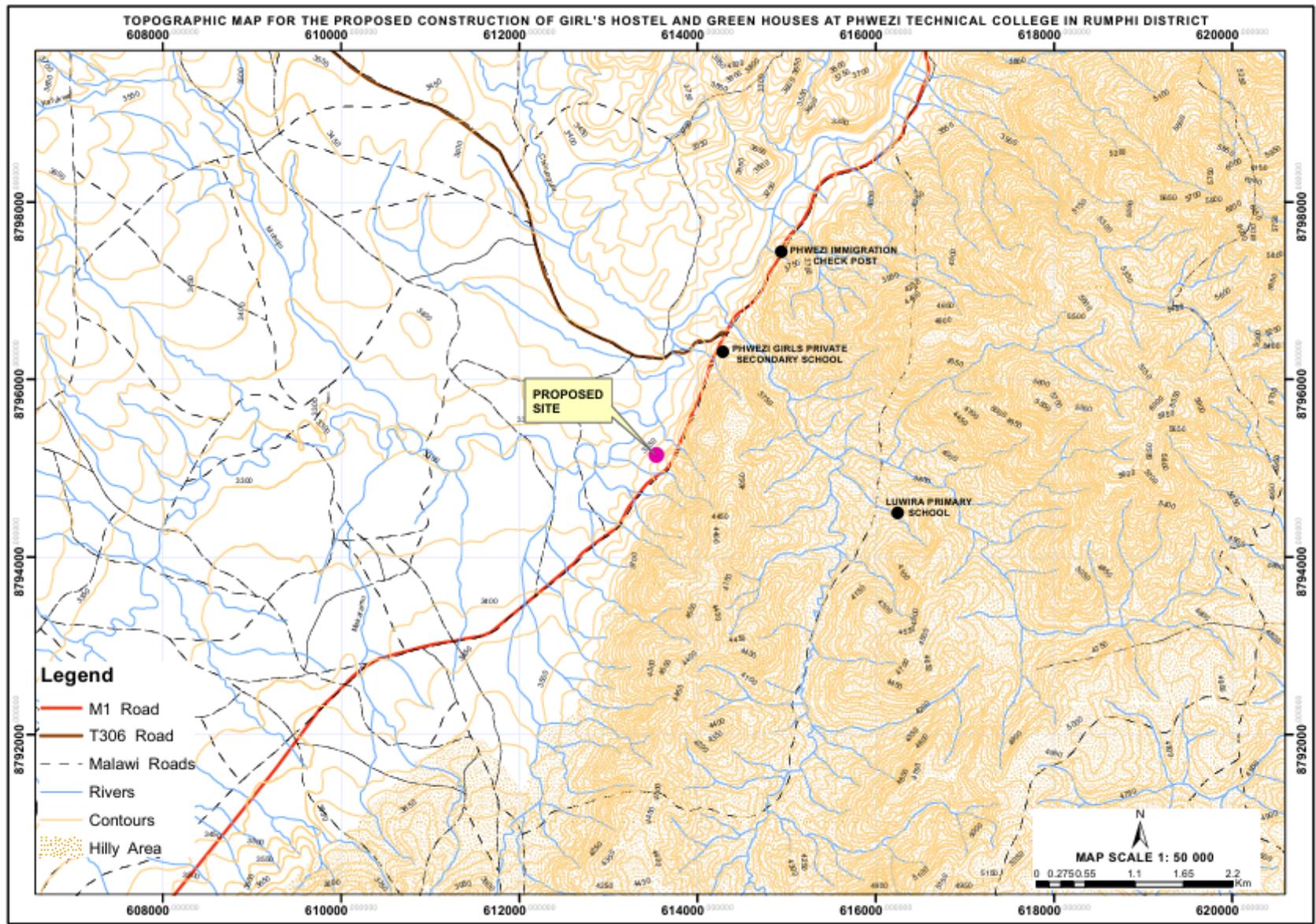


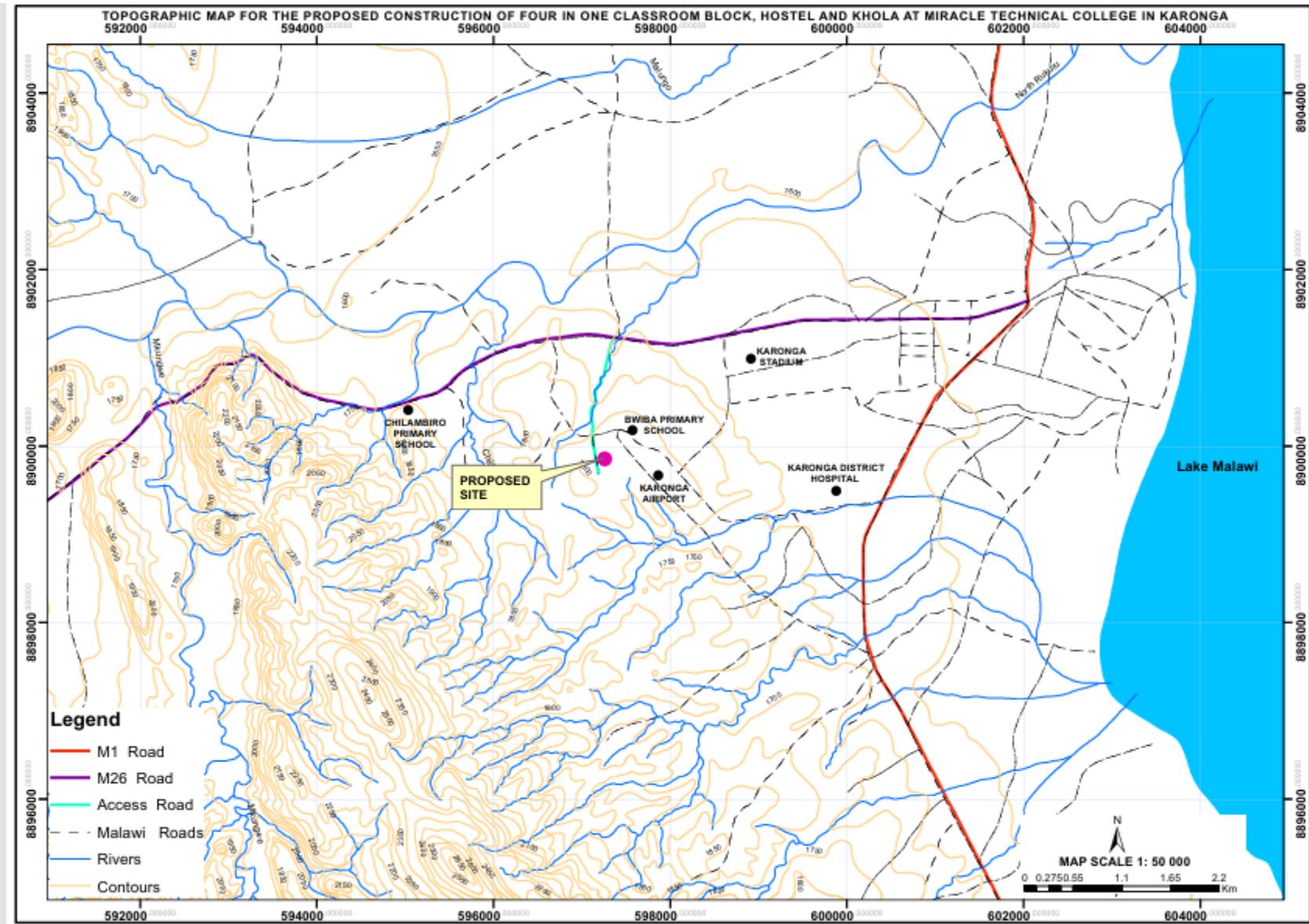


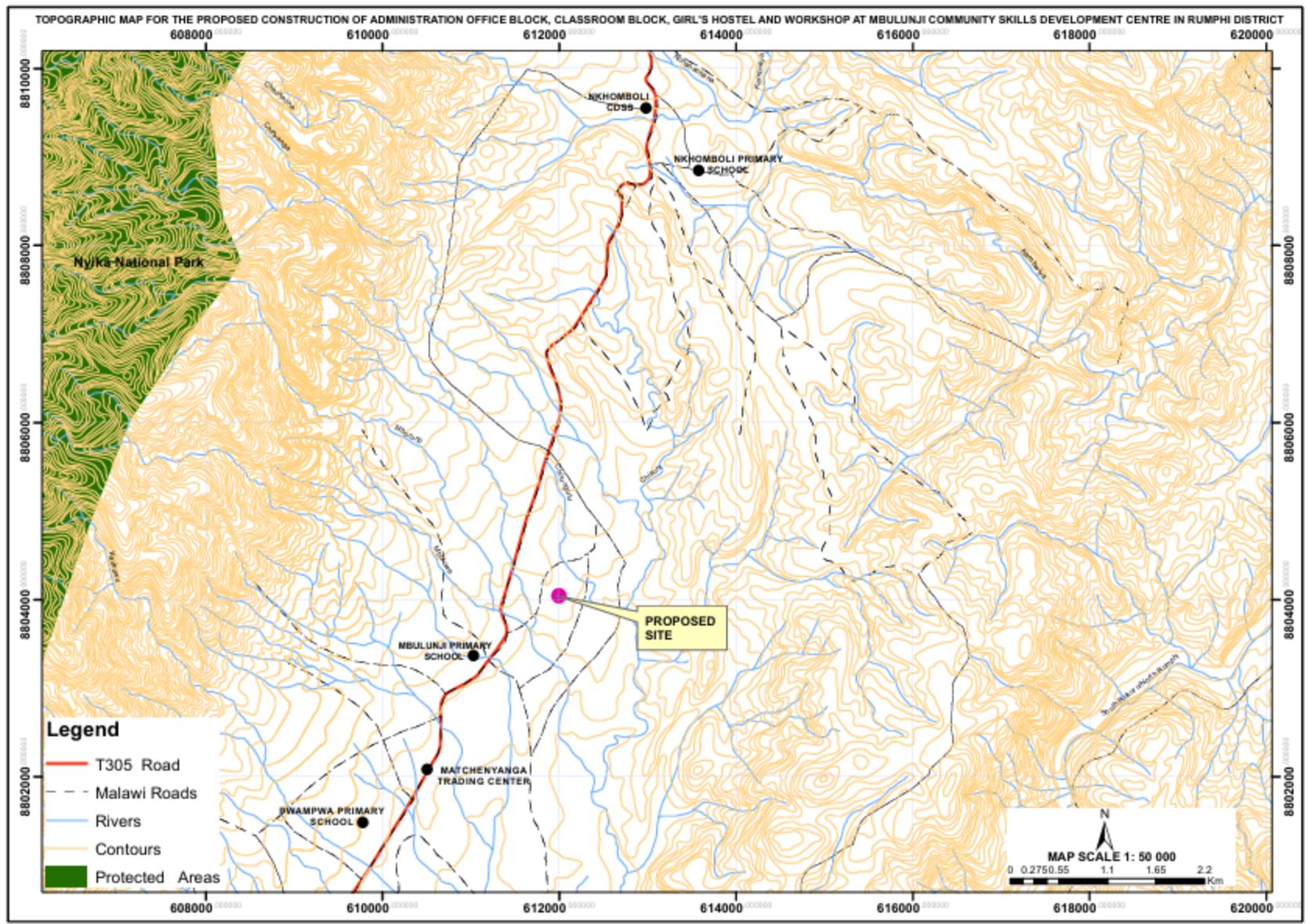
A1.3 Topographic maps of the project sites

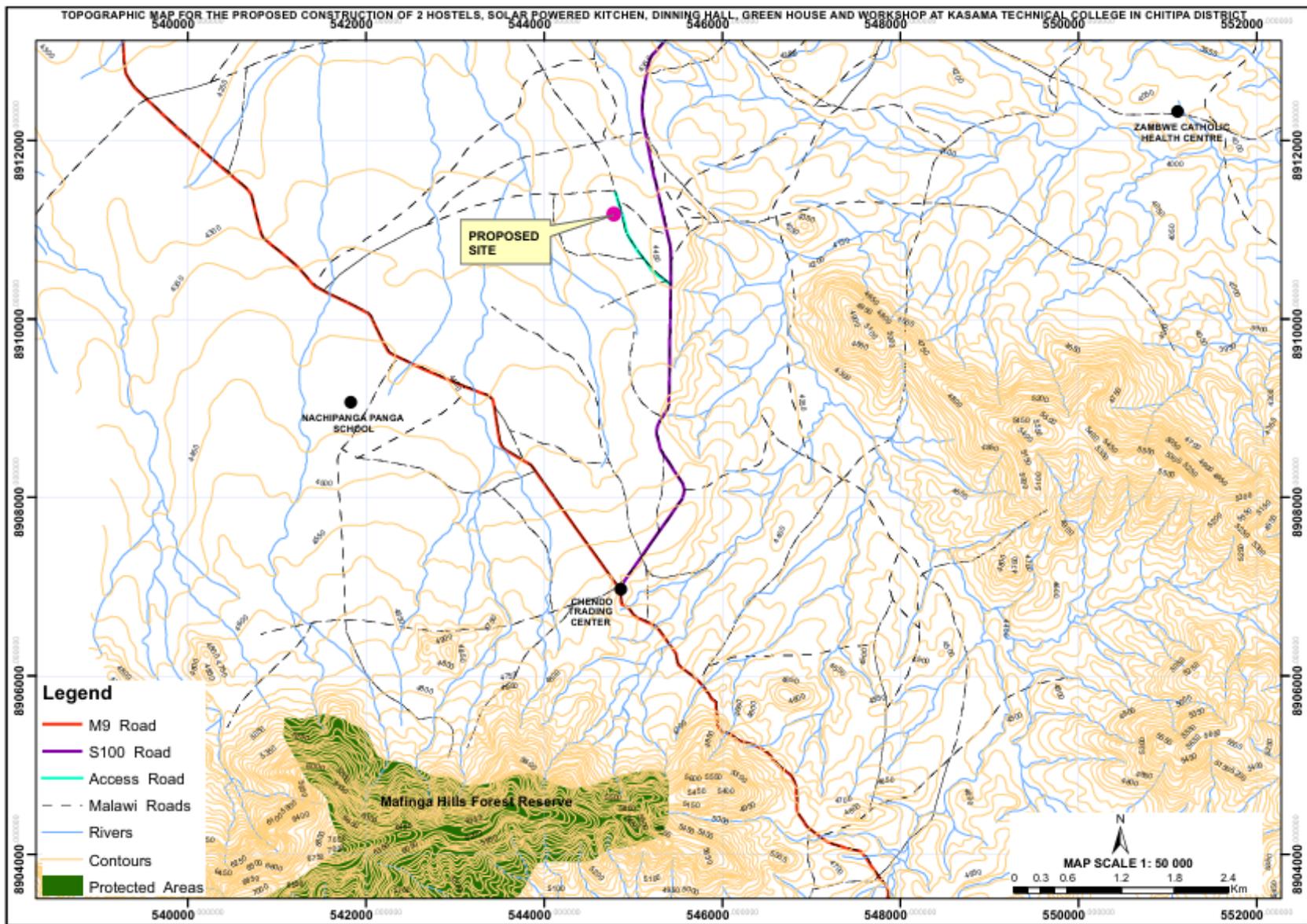


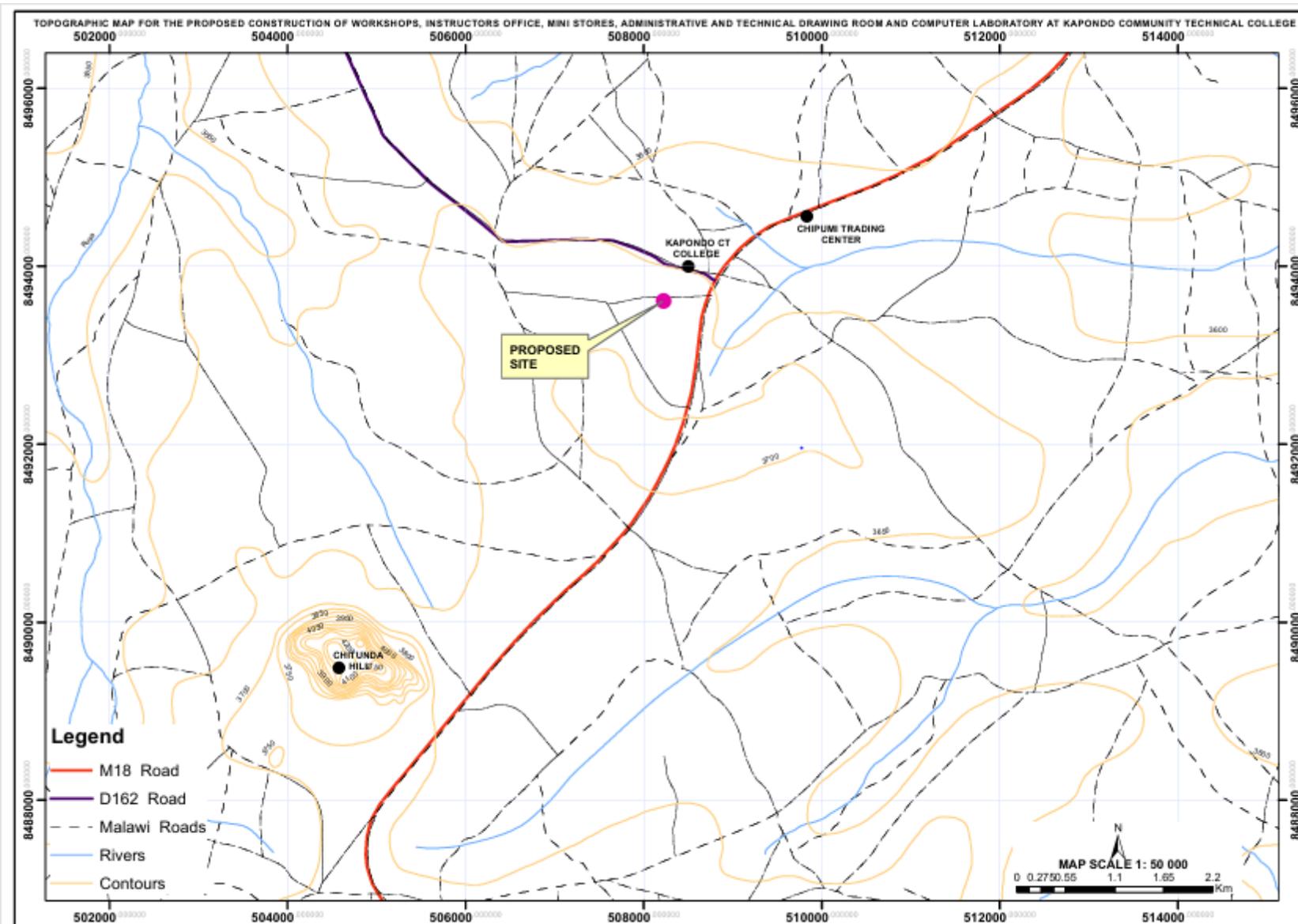


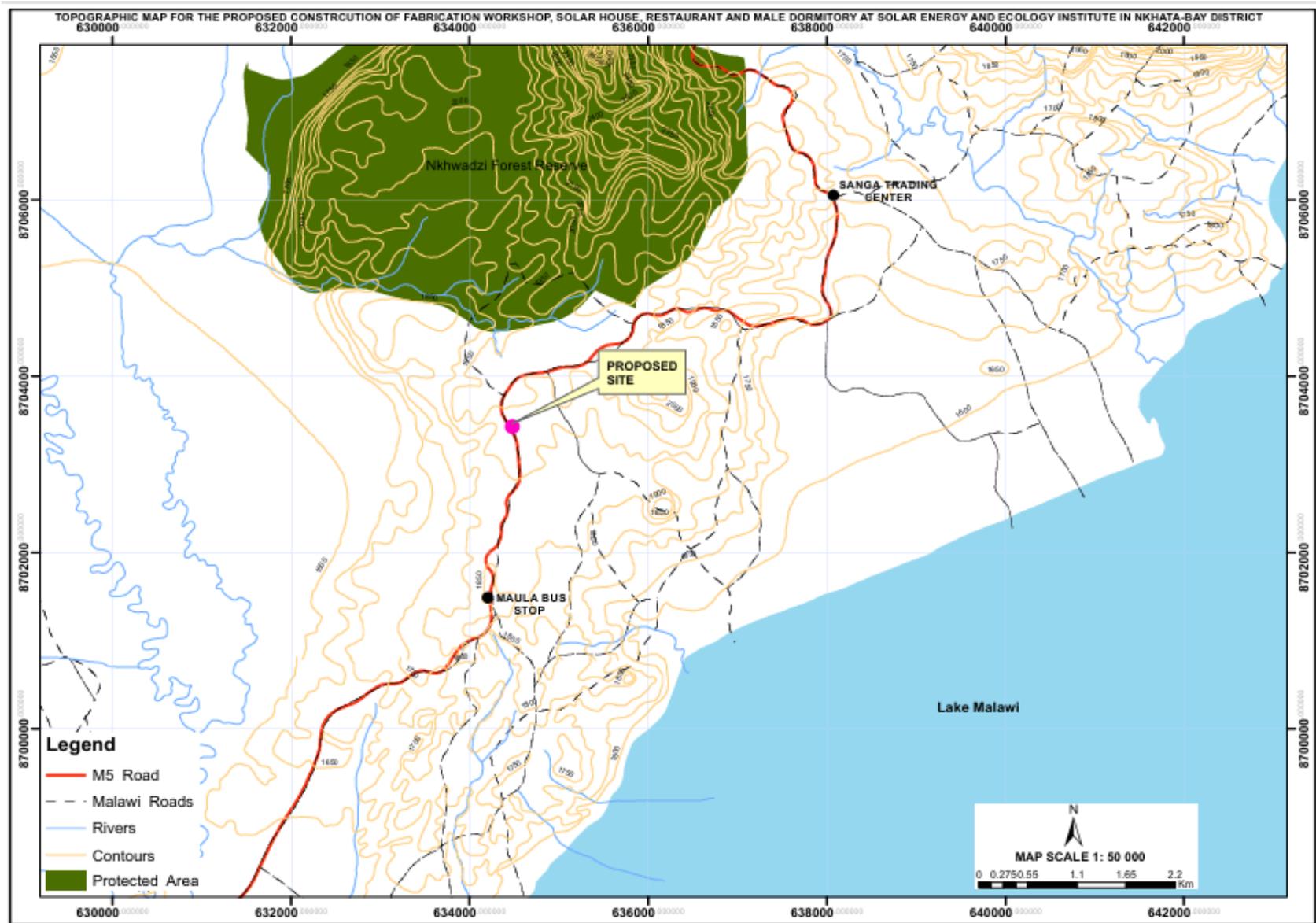












Annex 2: Stakeholder engagement

A2.1 Stakeholder consultation checklist

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?

A2.2 Stakeholder comments

A2.2.1 Minutes for kasungu municipal council meeting on proposed save project in kasungu District, Malawi held on 28th March 2025.

Meeting Agenda:

1. Introductions
2. Welcoming Remarks
3. Introducing the SAVE Project
4. DESC reaction to introduction of the project
5. Discussions on potential Environmental and Social Impacts from the proposed project
6. Closing Remarks

Members present:

S N	Name	Institution	Position	Contact
1	Helbert Bolokonya	Kasungu district council	EDO	0999227693
2	Blessing nyasulu	Kasungu municipality council	PPO	0884233898
3	Mr kamphinda	Kasungu municipality council	DPD	0999676968
4	Mrzimba	Kasungu municipality council	DPW	0884970802
5	Josphine mphako	Kasungu municipality council	SEHA	0999825363
6	Rusess mhone	Kasungu district council	DLO	0999357445
7	Tryness bondo	Kasungu district council	QAO	0995520334
8	Chisomso kalumo	Kasungu district council	ASWO	0991535696
9	Gomezanyi botha	Kasungu district council	CDO	0992665553

SN	DISCUSSION	AGREED ACTION
1	<p>Opening Remarks:</p> <p>The meeting commenced at 9:00 AM, with the Director of Planning delivering the opening remarks. He warmly welcomed the consultant team and emphasized the significance of active participation from all members representing various departments. He highlighted that the activities proposed by the EDSC team are integral to the area's development and encouraged all attendees to attentively listen to the team's presentation and actively engage in the ensuing discussions.</p> <p>The meeting proceeded with an introduction phase, where each participant had the opportunity to introduce themselves and state their respective positions. This session provided a comprehensive overview of the attendees and their roles within the meeting, ensuring clarity and inclusivity in discussions</p>	
2 2.1	<p>Introduction:</p> <p>The meeting began with the introduction phase, during this everyone had the opportunity to introduce themselves and state their respective positions. This provided a comprehensive overview of the attendees and their roles within the meeting.</p>	
3 3.1	<p>Introducing the Project:</p> <p>Doreen Kamanga expressed her appreciation to all staff members for attending the meeting before introducing the project. She explained that the Government of Malawi, through the Ministry of Education and TEVETA, is</p>	

SN	DISCUSSION	AGREED ACTION
	<p>implementing the SAVE Project. The Kasungu skills development centre projects are part of Component 2, focusing on improving equitable access to market-relevant skills development in Technical Colleges.</p> <p>As a consultancy firm, EDSC has been entrusted with the responsibility of conducting the Environmental and Social Management plan for the project. This assessment will analyze the potential positive and negative impacts of the project and engage in consultations with individuals who may be affected by the project.</p>	
4	<p>Concerns and issues raised during the meeting: During the meeting, several concerns were raised regarding compliance with town planning regulations and land ownership matters. It was emphasized that the project team must ensure that all necessary bidding plans are submitted for approval before any construction work begins. Obtaining the required permits and approvals from the Town Planning Department is crucial to ensure that the project aligns with local development guidelines and zoning regulations.</p> <p>Additionally, participants highlighted the importance of collaboration between the contractor and the town planning team throughout the project's lifecycle. Close coordination will help prevent potential conflicts related to land use, infrastructure alignment, and urban development policies. The contractor was urged to engage with relevant town planning officials to ensure compliance with all regulatory frameworks.</p>	

SN	DISCUSSION	AGREED ACTION
	<p>Another key issue discussed was land ownership and tenure clarity. Before project commencement, all land-related matters must be thoroughly reviewed, and any disputes must be properly addressed and settled. Proper documentation and legal verification of land rights will be essential in preventing future conflicts and ensuring smooth project implementation.</p>	
5	<p>Anticipated Negative Impacts of the project according to the members: The members present were asked of potential positive impacts of the project as the following were the key potential impacts identified</p>	
5.1	<p>The creation of borrow pits during the project was a topic of concern highlighted during the meeting, as they have the potential to become breeding grounds for communicable diseases like malaria</p>	<p>The DESC members proposed that after the completion of the project, the borrow pit sites should be backfilled as a preventive measure against the potential breeding of communicable diseases such as malaria.</p>
5.2	<p>It was emphasized during the meeting that the utilization of heavy machinery and equipment in the project would result in an escalation of dust levels.</p>	<p>The members proposed the implementation of dust control measures, which include the use of a water bowser to suppress dust during operations. Additionally, they emphasized the importance of using personal protective equipment</p>
5.3	<p>The members also expressed concerns about the potential negative impact of the project on the area. They highlighted the increased risk of accidents due to the construction works the community.</p>	<p>It was agreed by the members that it is necessary to barricade the work area in order to mitigate potential accidents, particularly considering the heightened risk due to the project.</p>
5.4	<p>It was also raised during the DESC meeting that the coming of the project may lead to an increased rate of HIV, AIDS, and other sexually transmitted infections due to the influx of migrant people in the area</p>	<p>It was suggested that health service providers collaborate with community leaders to provide condoms to both workers and local community members, aiming to promote safe sexual practices</p>

SN	DISCUSSION	AGREED ACTION
		and prevent the spread of HIV, AIDS, and other sexually transmitted infections
5.5	During the discussions, the issue of proper waste management was raised as a key concern, particularly due to the proximity of a nearby river. Participants emphasized the need for an effective waste disposal system to prevent contamination of water sources and protect the surrounding ecosystem. It was noted that improper waste disposal could lead to environmental degradation, including water pollution, which may affect both human health and aquatic life.	Suggestions were made to implement sustainable waste management practices, such as setting up designated waste collection points, promoting recycling initiatives, and ensuring proper disposal methods to mitigate any adverse environmental impacts.
5.6	Another key concern raised was the risk of disease outbreaks at the project site, particularly waterborne diseases such as cholera and communicable diseases like HIV/AIDS. The presence of a large workforce and potential interaction with local communities could increase the likelihood of disease transmission.	It was suggested that they should put proper measures such as distribution of condition, awareness campaigns and providing sanitary facility
6	<p>Anticipated Positive Impacts of the project according to the DESC:</p> <p>The DESC was asked of potential positive impacts of the project as the following were the key potential impacts identified:</p>	
6.1	The members also put forward the suggestion that the project's implementation would lead to an increase in job opportunities for individuals who reside in the project area	They agreed that they should prioritize gender equality within the project by ensuring the employment of both women and men. Moreover, providing wages that surpass the government-mandated minimum wage not only strengthens equitable compensation practices but also enhances the overall welfare of individuals living in the project area.
6.2	DESC members have acknowledged the potential for community development in the	The DESC suggested that the project should also actively engage in social

SN	DISCUSSION	AGREED ACTION
	<p>area as a result of the project's implementation. When development projects are introduced, they often have the potential to bring about positive changes in people's lives and the overall community.</p>	<p>responsibility initiatives such as building school blocks, as it benefits the community</p>
7	<p>Closing Remarks In the concluding remarks, the chairperson expressed sincere appreciation to the Environmental and Social Development service Consulting team for their informative presentations. They also conveyed heartfelt gratitude to all the attendees for their commitment and participation in the meeting, acknowledging the valuable time they dedicated to being present</p>	

A2.2.2 Stakeholder comments at Kasungu, Mchinji, Lilongwe, Balaka and Ntchisi with community, Students and staff members

S N	NAME	INSTITUTION	ISSUES RAISED	RECOMMENDATIONS	Where has it been addressed in the report
1	Staff Members	Mchinji Technical College	Positive impacts	Suggested enhancement measure	
			Job creation	The project should prioritize employing local people from the surrounding project area to provide them with economic opportunities	5.4.2.1
				The project should prioritize employing local people from the surrounding project area to provide them with economic opportunities	
				Employment practices should promote gender equality, ensuring that both men and women have equal opportunities for work.	
			Community development due to the coming of the project	The project should be completed within the stipulated period to avoid delays and ensure that the intended benefits reach the community in a timely manner.	
				Local people should be employed as part of the project to improve their livelihoods and economic well-being	5.4.2.1
			A good working environment due to new infrastructure	Prioritize the hiring of local people to enhance their standard of living and create sustainable income sources for the community.	
				The project should use durable and high-quality materials for the construction of infrastructure to ensure that the structures remain strong and last for a long time.	5.4.3.1

		Reducing deforestation as people will find other sources of income rather than engaging in charcoal burning.	By providing employment opportunities, the project will help people find alternative sources of income rather than engaging in activities such as charcoal burning, which contributes to deforestation.	
			Both skilled and unskilled workers from the local area should be employed, ensuring that all segments of the community benefit from job opportunities.	5.4.2.1
		Negative impacts	suggested Mitigation measure	
		Air pollution because of the dust that will be emitted into the air from excavations	sprinkling water to reduce dust emission	5.5.2.1
		Noise pollution occurs due to construction activities, including machinery passing through the area and near the school during the construction phase	Restrict noisy activities to specific hours, preferably during the day when it causes minimal disruption	5.4.5.6
			Ensure construction equipment is well-maintained to minimize excessive noise.	
		loss of flora and fauna on the area which will be developed	Limit vegetation clearing to only necessary areas to reduce habitat destruction.	5.4.5.14
			Replant trees and native vegetation after construction to restore lost habitats.	
		The construction will generate rubble as well as general waste from the works during construction and demolishing phases	Disposal of hazardous waste should be well managed, if not properly managed Management of associated waste with the workers should be critically considered.	5.4.6.6
		The project may lead to an increase in HIV/AIDS cases, especially among student influenced by financial	Conduct regular sensitization programs on prevention, safe sex, and the dangers of risky behaviours.	5.4.6.3
			Implement policies against worker-student relationships and enforce ethical conduct.	

			opportunities or relationships with workers,		
2	Community members	Ntchisi Community Skills Development Centre	Positive impacts	Suggested enhancement measure	
			Increase Job opportunities on the construction site for unskilled labour	Consider employing locals from the community surrounding the project	5.4.1.1
			The project will provide capacity-building opportunities for local workers to gain new skills and knowledge	Give preference to local workers for job opportunities within the project.	5.4.3.2
				Conduct on-the-job training to equip local workers with technical and vocational skills relevant to the project.	
			Negative impacts	Suggested mitigation measure	
			During the construction period, there will be an influx of migrant workers in the area, which may potentially lead to an increase in HIV/AIDS cases and pregnancies.	Conduct regular awareness campaigns on HIV/AIDS prevention, safe sex practices, and the risks associated with unprotected sex.	5.4.6.3
				Implement and enforce a code of conduct that promotes respectful behaviour towards the local community,	
			During the construction period, there may be an increase in the theft of construction materials as well as a rise in general theft in the area.	Work with local leaders to foster good relations with the community and promote reporting of suspicious activities.	
				Increase awareness to migrant workers on issues of theft	
			Disturbance of the road alignment may occur since part of the land includes a pathway.	Inform local residents and road users in advance about the changes through community meetings, signposts, and public notices.	
Increase in dust emissions may result from the movement of	Regularly spray water on dusty surfaces, especially during dry and windy conditions, to suppress dust.	5.4.5.5			

			heavy machinery during construction.		
			The project may result in an increase in accidents in the area during construction works.	Develop and implement a traffic management plan to regulate vehicle movement around the construction site	5.4.4.1
				Erect barricades around hazardous areas to prevent unauthorized access.	
			Increase in waste during construction for both for solid and liquid waste.	Proper disposal mechanisms such as availability of pits around the area	5.4.5.10
3	Staff Members	Ntchisi Community Skills Development Centre	Positive impacts	Suggested enhancement measure	
			Increase Job opportunities on the construction site for unskilled labour	The recruitment of unskilled labour process should prioritize local resident workers.	5.4.1.1
			The construction of new infrastructure will increase enrolment due to the introduction of new courses	There should be community awareness on new training programs to be introduced after the completion of construction works.	5.4.3.2
			The project will bring infrastructure development and provide enough classrooms for learning.	Hire qualified teachers and provide continuous professional development.	5.4.3.3
				making sure that the structures are durable and quality standard	
			Negative impacts	Suggested mitigation measure	
			Poor quality of works can cause accidents on the site	The contractor should conduct regular site inspections	5.4.5.7

			There is a risk of gender-based violence (GBV) and sexual relationships between students and workers during the construction.	Implement and enforce a strict code of conduct for both workers and students, clearly prohibiting any form of sexual harassment or exploitation.	5.4.5.2
				Conduct regular awareness programs on GBV, sexual harassment, and consent for both students and workers.	
			The use of heavy machinery during the construction period may result in increased noise, which could cause students to lose concentration.	install temporary noise barriers or soundproofing materials around the construction site to reduce noise levels	5.4.5.6
				Schedule heavy machinery work during off-peak hours, such as early mornings or late afternoons, to minimize disruption during peak learning times	
			The increase in air pollution due to dust produced during construction works may lead to respiratory diseases.	Spray water on dusty surfaces, especially during dry and windy conditions, to reduce airborne dust.	5.5.2.1
				Barricade the work area	
4	Community members	Ntchisi Mthiramsembe technical college	Positive impacts	Suggested enhancement measure	
			Increase employment opportunities in the community	First raise awareness about the project within the community. and the jobs available on the site and priorities people in the project area for unskilled works	5.4.1.1
			The new infrastructure will beautify the area, thereby promoting community development.	Ensure that buildings and structures are designed with visually appealing and sustainable materials.	5.4.3.3
			The project will boost business opportunities in the area, thereby contributing to community development as people's livelihoods will improve.	Prioritize hiring local labor that will help them do businesses	5.4.2.2

			New technologies will be introduced with the development of new facilities that were not previously available.	Partner with technology firms to provide resources, training, and ongoing support for the adoption of new innovations.	5.4.3.1
			Negative impacts	Suggested mitigation measure	
			Dust pollution	The contractor should use water to suppress the dust.	
			There is an increased risk of HIV and AIDS among workers and community members.	Conduct regular sensitization programs to educate workers and community members on HIV prevention, transmission, and treatment.	5.4.6.3
				Ensure free and easy access to condoms at workplaces and community Centres to promote safe practices	
			Increase traffic around the area that may lead to accidents	The contractor should hire traffic control personnel to control traffic	5.4.5.16
5	Staff Members	Ntchisi Mthiramsembe technical college	Positive impacts	Suggested enhancement measure	
			The construction of new structures in the school will contribute to its development by enabling the introduction of new programs.	Introduce new programs and courses that align with the needs of students and the job market.	5.4.3.2
			The construction of new structures including classroom blocks will increase the enrolment number of students	Prioritize equal opportunities for all students, including marginalized and underrepresented groups, to increase enrollment.	
			boost business around the project area	making sure that they are provided with designated site for their businesses	
			Negative impacts	Suggested mitigation measure	
			During the construction period, there is a risk of an increase in	Conduct regular HIV and AIDS awareness campaigns for both workers and the local community,	5.4.6.3

			HIV and AIDS among workers and the community.	Distribute condoms in accessible locations around the construction site and within the community to promote safe sexual practices.	
			During the construction period, there is an increased risk of accidents due to various hazards such as heavy machinery, falling objects, excavation work, and worker movement within the site. These risks can affect both workers and community members near the construction area.	The work area should be barricaded	
				Installation of signage and community awareness on safety measures	5.4.5.7
6	Community members	Kasungu Community Skills Development Centre	Positives Impacts	Suggested Enhancement Measures	
			The construction of a girls' hostel will provide safe and secure accommodation for female students, improving their academic performance and overall well-being.	Making sure that the structures are durable	5.4.3.2
			The construction of new educational infrastructure will significantly increase in education levels in the area.	Implement teacher capacity-building programs	5.4.31
			Negatives Impacts	Suggested Mitigation Measures	
			Trees will be cut down	The contractors' designs should work around to conserve the trees on the premises or plant more after cutting them down	5.4.5.14

			The construction of infrastructure projects often requires significant amounts of earth materials such as sand, gravel, and clay which may result in creation of borrow pits	Restore borrow pits by refilling with soil, replanting vegetation, or converting them into useful community assets. Install warning signs and safety barriers around borrow pits.	
7	Staff Members	Kasungu Community Skills Development Centre	Negative impacts	Suggested Mitigation Measures	
			The excavation and heavy construction activities involved in the project may pose a risk of creating cracks in existing buildings and infrastructure due to vibrations, ground movement,	Conduct a detailed survey of nearby buildings to document their current condition and also soil analysis should be conducted	5.4.5.3
			The influx of migrant workers during the construction period may lead to cultural disturbances in the local community even at the college.	Conduct cultural orientation sessions for both migrant workers and the local community to promote mutual understanding.	
				They should be code of conduct for workers to be followed	
			increase in theft issues	The contractor should have their own guards on the premises, and Identity cards should also be introduced for their workers	
			Positive Impacts	Suggested Enhancement Measures	
			The construction and operational phases of the project will generate various employment opportunities, benefiting both skilled and unskilled workers in the local community.	Engage local communities in recruitment processes and ensure transparency in hiring.	5.4.1.1
Encourage the hiring of women in both skilled and unskilled roles to promote gender equality.					

			The construction of new educational facilities and the introduction of improved learning programs will contribute to reducing student dropout rates while increasing school enrollment	Establish mentorship and career guidance programs to motivate students and reduce dropouts due to lack of future prospects.	5.4.3.2
			Increase in waste around the area	Waste should be managed properly, Construction of pits	5.4.5.10
8	Students	MACODA	Positive impacts	Suggested Enhancement Measures	
			Job creation	Employ local people surrounding the project	5.4.1.1
			Negatives Impacts	Suggested Mitigation Measures	
			Air pollution because of the dust that will be emitted into the air from excavations	Plant more trees on the campus to shield them from the outside dust.	5.4.5.5
			Noise pollution because of the works taking place during construction phase.	Trees should be replanted	5.4.5.6
			Trees will be lost during the levelling of the land	Disposal of hazardous waste should be well managed,critically considered.	5.4.5.14
			The construction will generate rubble as well as general waste from the works during construction and demolishing phases	provide PPEs and also change rooms for the workers	
			Occupation and safety issues might increase	Waste management system should be considered so that like paintings should not find there way in the storm water drains.	5.4.5.7
9	Students	SOS Technical college	Positive Impacts	Enhancement Measures	

			Increase Job opportunities on the construction site for unskilled labour	Consider employing locals from the community surrounding the project	5.4.1.1
			Negative Impacts	Suggested Mitigation Measures	
			Occupational health and safety	The employees and developer should adhere to all safety measure while working to avoid accidents.	5.4.5.7
			Increase in waste during construction for both for solid and liquid waste.	Proper disposal mechanisms such as availability of pits around the area	5.4.5.10
			Rubble waste will increase	When disposing of rubble into the roads they should consider sharp things like nails that can damage tires	
			Increase in spills of oils from construction vehicles	Oils should be managed properly on the site.	5.4.6.6
S	NAME	INSTITUTION	ISSUES RAISED	RECOMMENDATIONS	
N					
1	Staff Members	Andiamo Technical College	Positive impacts	Suggested enhancement measure	
			Job creation	The project should prioritize employing local people from the surrounding project area to provide them with economic opportunitie	5.4.1.1
				The project should prioritize employing local people from the surrounding project area to provide them with economic opportunitie	
				Employment practices should promote gender (include the 40:60 gender ratio) equality, ensuring that both men and women have equal opportunities for work.	

			Community development due to the coming of the project	The project should be completed within the stipulated period to avoid delays and ensure that the intended benefits reach the community in a timely manner.	5.4.3.3
				Local people should be employed as part of the project to improve their livelihoods and economic well-being	5.4.1.1
				Prioritize the hiring of local people to enhance their standard of living and create sustainable income sources for the community.	
			Enrollment is expected to increase due to the introduction of new programs		
			The construction of workshops will significantly improve hands-on training and practical skills development for students	Training and hiring qualified instructors	5.4.2.4
				Offering market-relevant and in-demand courses	
			Negative impacts	suggested Mitigation measure	
			The project may increase interactions between workers and students, which could elevate the risk of inappropriate sexual relationships if not properly managed.	They should be code of conduct for workers to be followed	
			loss of flora and fauna on the area which will be deveooped	Limit vegetation clearing to only necessary areas to reduce habitat destruction.	5.4.5.14
				Replant trees and native vegetation after construction to restore lost habitats.	

			During the construction phase of the project, activities such as site clearance, excavation, transportation of materials, and operation of heavy machinery are likely to generate significant amounts of dust and other air emissions	making sure that the area is properly barricaded and use of PPE	5.4.5.5
			The project may lead to an increase in HIV/AIDS cases, especially among student influenced by financial opportunities or relationships with workers,	Conduct regular sensitization programs on prevention, safe sex, and the dangers of risky behaviors.	5.4.6.3
				Implement policies against worker-student relationships and enforce ethical conduct.	
2	Community members	Andiamo technical college	Positive impacts	Suggested enhancement measure	
			Increase Job opportunities on the construction site for unskilled labour	Consider employing locals from the community surrounding the project	5.4.1.1
			The project will provide capacity-building opportunities for local workers to gain new skills and knowledge	Give preference to local workers for job opportunities within the project.	
				Conduct on-the-job training to equip local workers with technical and vocational skills relevant to the project.	5.4.3.4
			Negative impacts	Suggested mitigation measure	
During the construction period, there will be an influx of migrant workers in the area, which may potentially lead to an increase in	Conduct regular awareness campaigns on HIV/AIDS prevention, safe sex practices, and the risks associated with unprotected sex.	5.4.4.10			

			HIV/AIDS cases and pregnancies.	Implement and enforce a code of conduct that promotes respectful behavior towards the local community,	
			During the construction period, there may be an increase in the theft of construction materials as well as a rise in general theft in the area.	Work with local leaders to foster good relations with the community and promote reporting of suspicious activities.	
				Increase awareness to migrant workers on issues of theft	
			Disturbance of the road alignment may occur since part of the land includes a pathway.	Inform local residents and road users in advance about the changes through community meetings, signposts, and public notices.	
			Increase in dust emissions may result from the movement of heavy machinery during construction.	Regularly spray water on dusty surfaces, especially during dry and windy conditions, to suppress dust.	5.4.5.5
			The project may result in an increase in accidents in the area during construction works.	Develop and implement a traffic management plan to regulate vehicle movement around the construction site	5.4.5.7
				Erect barricades around hazardous areas to prevent unauthorized access.	

A2.2.3 Stakeholder Comments in Rumphi, Mzuzu, Chitipa, Karonga and Nkhatabay

S ISSUES AISED					
N NAME					
1		Positive impacts	Enhancement measures		Where has it been addressed in the report

	The developer will create job opportunities for the locals	The developer should work with the village head and other relevant officials when recruiting people in the area.	5.4.2.1
	There will be an economic boom in the area because money will be in circulation amongst the workers and the locals.	Traders should be mindful of the quality of the products they will be selling and hygiene on their business premises.	
	The community will benefit from the good infrastructure that will be providing education to their children.	Children in the community and surrounding areas are urged to work hard and be able to get better education and skills from the college.	5.4.3.3
	There will be an increase in enrollment at the college.		
	Development in the community because of the new infrastructures.	Students and the management of the college are urged to take care of the new facilities for it to benefit many people in the community and surrounding areas.	
	Negative impacts		
	There will be noise pollution during the construction phase.	The developer should be working when classes have finished or on weekends to avoid noise.	5.4.5.6
	Dust pollution during construction.	The construction site should be sprinkled with water to avoid dust pollution in the area.	5.4.5.5
	Vandalism on the construction site	Employing locals will curb the acts of vandalism on the construction site because they will take responsibility of their jobs and the facility being built.	

		There will be a spread of sexually transmitted diseases among the imigrant workers and the locals.	The community should be sensitized regarding sexual relationships with migrant worker and how they can prevant sexually transmitted diseases.	5.4.5.5
		Corruption at the workplace.	The developer should be fair when employing people and should avoid employing only migrant workers.	
		Not following the code of conduct by the employer.	The employer and employees should always adhere to the code of conduct during the construction.	
2	ADC Members- Chitipa	Positive Impacts		
		Many youngsters will be interested in school because of the new hostels that will be built.	The management and the students should take responsibility of taking care of the facility.	
		The new facility will beautify the community.		
		There will be an improvement in academics by the learners because they will be staying on campus unlike outside the campus	The students are urged to take good care of the hostels and the inventory inside them.	5.4.3.1
		The people in the community will get employed by the the developer	The ADC will work with the developer during the recruitment period to help identify reliable workers.	5.4.2.1

		Improved security for the students because they will be staying on campus.		
		There will be a reduction in learners dropping out of school	The facility will encourage students to stay in school and complete their programs unlike outside lodging.	
		Many youths from the community will be motivated by the new structures and new programs that will be introduced.	Enrollment should prioritize youths from Chitipa.	
		Negative impacts		
		Adoption of new cultures that will be brought by the migrant workers especially bad behavior's	The community should be sensitized about the new project coming and the impact that it will have on the community.	
		Marriage disruption in the area because of the migrant workers		
		Theft of building materials on the construction site.	The developer should employ security guards, and routine search should be conducted after every shift for the workers.	
		Increased sexually transmitted diseases.		5.4.4.10
		Teenage pregnancies will be on the increase in the area.	Parents should avoid exposing young girls to the construction site to avoid pregnancies, young girls should be in school.	
3	Staff-Mbulunji Rumphu.	Positive Impacts		

	Increased spaces will bring about a good learning environment.	The college should strive to always keep the new facilities in good condition.	5.4.3.2
	Increased enrolment because of the new accommodation	the college should prioritise the community when enrolling new students.	
	There will be development in the community	The community should take ownership of the development in their area.	
	There will be an increase of programs at the college	Lecturers should be conversant with the new programs or go for refresher course for them to teach the student the new programs.	
	The community will benefit from the products made at the college.	The students in the manufacturing sections should strive for good quality products that can be sold to the community.	
	New skills will be acquired by the staff because of the new equipment that will come with the new facility.		5.4.3.4
	The college will be a role model school and will motivate the girl child.	Students from the college should help with career guidance to the girl child in secondary schools in the community.	
	Inclusive learning will be encouraged at the institution.	The developer should construct disabled friendly structures to accommodate people with different disability.	
	Negative Impacts		
	Trees will be cut down during the construction	The institution should reafforest the lost trees.	
	Gullies will be created and can cause soil erosion	The developer should avoid constructing on slopes	
	Displacement of flora and fauna	They should choose a site with less flora and fauna to avoid displacement.	5.4.5.14

		Employing underage workers on the construction site.	The developer should avoid employing workers below eighteen years and Labour laws should be followed.	
		There can be marriage disruptions in the area because of the migrant workers.	The community should sensitize regarding the new project and the implications that might arise due to the influx of migrant workers.	
		Dust pollution during construction.	The developer should sprinkle water on the site and provide masks to the workers.	5.4.5.5
4	Staff-Phwezi Technical College.	Positive Impacts		
		Increased enrolment because of the hostels that will be constructed.	The students and management should be in control of taking care of the new facilities.	
		Easy access to essentials and security for the students.		
		Development at the college.		5.4.3.2.
		Enhanced relationships between the college and government	The partnership between the government and private institution should continue being harmonious for the college to benefit more.	
		There will be a business boom and improved livelihood in the area.	Businesspeople should be selling things of good quality and should practice good hygiene in their business areas.	5.4.2.2

	Security for the female students because they will be staying on campus.	Strict rules should be put in place for the security of the girl on the campus.	
	Capacity building- new knowledge will be acquired by the staff because of the new equipment.	Staff will need training on how to operate the new equipment for them to teach the students effectively.	5.4.3.4
	New and modern equipment will be acquired and will improve the college.	Collective care should be taken in ensuring that the equipment is in good condition by the lecturers and students.	
	Some students can be doing practical's training during the construction phase for the developer.	Students should be encouraged to utilize this hands-on opportunity especially welders, bricklayers and plumbers.	5.4.2.4
	Negative Impacts		
	Marriage disruption in the area	There should be awareness in the community before the project begins.	
	Increase in sexually transmitted diseases	Prior to the project's commerce the community should be sensitized regarding the implication that might come with the project.	5.4.4.10
	Air pollution		5.4.5.5
	Water pollution		5.4.6.5
	Increased theft on the campus because of the increased number of people during construction	Security guards should be employed and routine search after every shift should be mandatory.	

		Lack of community involvement during the construction phase	The community should be involved during all the stages of the construction starting from the recruitment stage whereby some community members might benefit by getting employment.	
		Loss of trees during the levelling of the construction site.	The college will plant more trees.	5.4.5.14
		Construction of substandard buildings.	The developer should ensure that strong structures are being constructed, and the right materials are being used.	
		Lack of safety clothing for the workers.	The developer should provide protective gear for the workers during working hours.	
		Disturbance of classes	Construction work should happen when classes have completed or during weekends.	5.4.5.1
		Lack of coordination during the construction phase by the developer and the community,	The developer is encouraged to work with the community authorities during all stages of construction.	
		Misuse of construction resources.	Correct measures should be taken when distributing resources during construction to avoid wasting materials.	
5	Staff-MIR ACLE Technical Institute	Positive Impacts		
		Increased enrolment at the college.	The students and management should be in control of taking care of the new facilities.	
		Improved skills that will come with the new laboratory.	The students should teach others their new skills, especially greenhouse farming, the community can also benefit.	
		Increase in literacy levels in the community and surrounding areas.	Students from the college should be role models to the youth in the community, motivating them to aim high with their studies.	5.4.3.1

	Economic boom that will benefit the community.	Businesspeople in the community should strive to sell good quality products to their buyers.	
	The community will have a sense of ownership because the development will be in their community.	The community should work together to preserve and promote the college by being involved.	
	Improved nutrition because of the new models that will be taught at the college	The college should sell some of their products like vegetables to the community and this will help improve livelihood in the community.	
	Advancement of technology at the college.		5.4.3.1 and 5.4.3.4
	Job opportunities for the locals.	The community should work with the developer during the recruitment phase to help the identity reliable workers from the community.	5.4.2.1
	Inclusive education will be adopted at the college.	The developer should construct rumps for easy access of wheelchair to include the disabled students.	
	Innovation and acquiring new skills that can also be transferable.		5.4.2.3
	Negative Impacts		
	Cutting down of trees	More trees should be planted to replace the ones cut down by the contractor.	
	Air pollution	Worker should be provided with face masks to avoid respiratory diseases like tuberculosis during construction.	5.4.5.5
	Noise pollution	Selecting times slots for construction works to avoid noise during classes.	5.4.5.6
	Accidents may occur on the construction site.	The site should be hoarded, and proper signage should be put on the site.	5.4.5.7
	Vandalism of property	The developer should involve locals when recruiting personnel, this will give them a sense of responsibility.	

	Abuse of workers by the developer.	Labour laws should be adhered to by the developer during the construction phase.	5.4.4.2
	Increased theft of the site and surrounding areas.	The site should have enough security guards and routine checks should be done after every shift change.	
	Sexual harassment	The workers should sign a code of conduct that will protect them against sexual harassment.	5.4.4.2
	Delayed payments by the developer	Labour laws should be adhered to by the developer during the construction phase.	

A2.3 Evidence of consultations (signing sheets)

EDMI NOTE 13 PRO




STAKEHOLDER CONSULTATION SIGNING SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	ID Number	Signature
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	Josephine Mphaha	F	KURAC	SEHA	0999825363	0A8KUSEA	[Signature]
6	Russell Mphaha	M	KURC	DLD	0999357445	MGA87MS	[Signature]
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REDMI NOTE 13 PRO




STAKEHOLDER CONSULTATION SIGNING SHEET

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	Daniel Jambura	M	ADC chair		099809040		[Signature]
	Yohane Kankanda	M	Committee member	Committee member	0999162276		[Signature]
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STAKEHOLDER CONSULTATION SIGNING SHEET

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	Regina Zande Mawo	F	RUK DC	AFO	0888554569		
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STAKEHOLDER CONSULTATION SIGNING SHEET

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4	Stanley Matepe	M	Immigration-MADC	SIE	0995690506	SBCAPVNB	
5	MARIA JOSEPH	F	MADC	Admin	099262062		
6	MAHWIKE HARRISON	M	WESM	Member	0888445437	EGEWPTG	
7	Nwika Muntsho	M	MH-DC	PTO	0999421964		
8	William Chirwa	M	Fisheries	PTO	0996609821	SUKPCST	
9	James Manda	M	MADC	Admin	099275910		

STAKEHOLDER CONSULTATION SIGNING SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	ID Number	Signature
	Alinga Lidamondo	F	District water office	DWIO	0882053535	V328D6GV	
	James Jumbo	M	BLK-DC	EDO	099954157	P6AEJJA	
	TINENENJI MASOLI	F	BLU-DC	PPO	0884547166	V206M23	
	Patricia Lembo	F	BLK-DC	DLO	0998858457	M2W52RQ	
	Regina Zande Mafu	F	BLK-DC	Afo	0888554565		
	Arthur Ngalande	M	BLK-DC	DRHO	099910739	N51PH5TU	
	Tressore Dambé	M	BLK-DC	E.M.O	0995744915	T6FFS26X	
	Peter Chambanga	M	BLK-DC	DNQO	0882586253	W326N27H	
	Amos Nambazo	M	BLK-DC	DRHO	088490208	TKANSSMZ	

STAKEHOLDER CONSULTATION SIGNING SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	ID Number	Signature
1	Katele Khama	M	Ntchisi/college	Plumbing level 1	0859676927		
2	Kalengo NAETALI	M	Ntchisi/college	plumbing level 1	0985611745		
3	LEVISON JEMUESI	M	Ntchisi/college	plumbing level 1	098469319		
4	AUBREY BANDA M	M	Ntchisi/college	Plumbing level 1	0915205226		
5	CASSIM MUSSA	M	Ntchisi T. College	Plumbing level 1	0980999932		
6	Mishecka Jackson	M	Ntchisi T. college	Plumbing level 1	0990923016		
7	Mawu Banda	F	Ntchisi T. college	plumbing level 1	0987347960		
8	Silvia Chimambo	F	Ntchisi T. college	plumbing level 1	0992093957	0090207W	
9	Chimwemwe Mapurda	F	Ntchisi T. college	plumbing level 1	0990183846		

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STAKEHOLDER CONSULTATION SIGNING SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	ID Number	Signature
1	Blessings Kutchemba	Male	Technical College Kapondo	Carpentry and Joinery	0990446412		[Signature]
2	Praise chulu	Male	Kapondo Technical College	student	0987090136		[Signature]
3	GIBSON KATENGA-KAWINDI	MALE	KAPONDO TECH. COLLEGE	TAILORING & FASHION DESIGN	0993808087	SAWZK BCE	[Signature]
4	DAVIE GILBERT	MALE	Secretary Student Union Kapondo Technical College	BRL	0999719357	SRMBWA	[Signature]
5	TERAH MILANZIB	MALE	KAPONDO TECHNICAL COLLEGE	BRICK LAYING Student	0994500980		T.M
6	CLEMENT PANDE	MALE	KAPONDO TECHNICAL COLLEGE	BRICK LAYING	0986393157		[Signature]
7	CHRISTOPHER NIBIRANSE	MALE	KAPONDO TECHNICAL COLLEGE	TAILORING	0981429863		[Signature]
8	Gerald Kalebe	MALE	KAPONDO TECHNICAL COLLEGE	BRICK LAYING Student	0991387394		[Signature]
9	Christopher Kalusa	MALE	KAPONDO TECHNICAL COLLEGE	BRICK LAYING Student	0995992536		[Signature]
10	Alfred Ntumbwe	MALE	KAPONDO TECHNICAL COLLEGE	TAILORING AND FASHION DESIGN	09982737078		[Signature]



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STAKEHOLDER CONSULTATION SIGNING SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	ID Number	Signature
1	Blessings Itimu	M	NICHISI CIC	Instructor	0993568255	09645325	[Signature]
2	BLESSIMES THOM	M	NICHISI CIC	STAFF MEMBER	0996530240	TSIKI732	[Signature]
3	GRIFFIN ZIMBA	M	NICHISI CIC	STAFF MEMBER	099562855	SXMASIUS	[Signature]
4	ANDREW LUKE	M		PRINCIPAL	0997823665	VC657203	[Signature]
5	Margaret Mathias	F		D-Principal	09993782911		[Signature]
6	Anne mphiga	F		BURSAR	0995882444	SAMIZIM	[Signature]
7	Allan Chisamba	M		Staff member	0998410771	SPAC855	[Signature]



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STAKEHOLDER CONSULTATION SIGNING SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	ID Number	Signature
1	James Thuya	M	Mthiransembe	Tailoring	0997921029		J.M. Thuya
2	Rebecca Douglas Chinkwa	F	Mthiransembe	Tailoring	0996845179		R.D. Chinkwa
3	Angella ngombe	F	Mthiransembe	Tailoring	0991985139		Angela
4	Deria chidantere	f	Mthiransembe	Tailoring	0993247022	09605024	[Signature]
5	Patrick Chitungo	m	Mthiransembe	TFD	0995335610		[Signature]
6	Everess kamwendo	F	Mthiransembe	TFD	0983678464	1F7M9ATW	E. Kamwendo
7	Happy Mausem	m	Mthiransembe	Carpentry	0990185787		[Signature]
8	Aubrey Jonasi	M	Mthiransembe	CRJ	0995555329		[Signature]
9	Chifundo Phiri	M	Mthiransembe	CRJ	0999022715		[Signature]
	WALESI bonifesi	M	Mthiransembe	Bkedi	0999964922	0966277	[Signature]



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STAKEHOLDER CONSULTATION SIGNING SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	ID Number	Signature
1	MPHATSO CHIRIBIPHA	F	Kaponda technical	T.F.D	0983197324		MChiribipha
2	LINNY CHIBWAMA	f	K.C.T.C	PLB	0995418335		L
3	ITHOKOZIRE G.A.BANDA	F	Kaponda technical	T.F.D	0995670078		T. Banda
4	Alice Patrick Kumbani	f	K. C. T. C	T.F.D	0990304144		A.P.K
5	Caroline Banda	F	B-L K.C.T.C	B-L	0909083526		C.B
6	Dorothy Ndalema	f	T.C.T.C	TFD	0994027656		D.Ndalema
7	ENIPHER NKHOMA	f	T.C.T.C	TFD	0984222701		E.Nkhoma
8	Fareedah Kapaha	F	T.C.T.C	TFD	0999019255		F.Kapaha
9	Ethel Banda	F	T.C.T.C	TFD	0996155471		E. Banda
10	Vesina Mwayi	F	Kaponda technical	TFD	0983208277		V. Mwayi



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STAKEHOLDER CONSULTATION SIGNING SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	ID Number	Signature
	Jacqueline Pande	f	MALODA Lilongwe VTC	student	0854822011		JP
	Priscilla Setasi	F	Lilongwe VTC	student	0997471971		PS
	Tadela Namanjasi	F	Lilongwe VTC	student	0852119770		T
	Esmie Kapenuva	F	Lilongwe VTC	student	099355888		ES
	Rejoyce Misdade	F	Lilongwe VTC	student	0999835935		RM



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STAKEHOLDER CONSULTATION SIGNING SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	ID Number	Signature
1	MPHATSO CHIRIBIPHA	F	Kaponda technical	T.F.D	0983197324		MChiribipha
2	LINNY CHIBWAMA	f	K.C.T.C	PLB	0995418335		L
3	ITHOKOZIRE G.A.BANDA	F	Kaponda technical	T.F.D	0995670078		T. Banda
4	Alice Patrick Kumbani	f	K. C. T. C	T.F.D	0990304144		A.P.K
5	Caroline Banda	F	B-L K.C.T.C	B-L	0909083526		C.B
6	Dorothy Ndalema	f	T.C.T.C	TFD	0994027656		D.Ndalema
7	ENIPHER NKHOMA	f	T.C.T.C	TFD	0984222701		E.Nkhoma
8	Fareedah Kapaha	F	T.C.T.C	TFD	0999019255		F.Kapaha
9	Ethel Banda	F	T.C.T.C	TFD	0996155471		E. Banda
10	Vesina Mwayi	F	Kaponda technical	TFD	0983208277		V. Mwayi

STAKEHOLDER CONSULTATION SIGNING SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	ID Number	Signature
	Johane Manganda	M	Mthiransembe	U.D.G chair	0995750046		J. Manganda
	ESTERY Gumbo	F	MTHIRANSEMBE	VD SECRETARY	0992396762		E. Gumbo
	HENRY MGDWD	M	mthiransembe	C. member	0993544162	09578561	H. MGDWD
	Esau Kwatigamba	M	Katansembe	ACCO	0992714380	174622	Esau Kwatigamba

STAKEHOLDER CONSULTATION SIGNING SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	ID Number	Signature
1	JARVIS LIABURA	M	MTHIRANSEMBE	INSTRUCTOR	0991182022		J. Liabura
2	ISAIAH MWANDIYA	M	MTHIRANSEMBE	INSTRUCTOR	0996856666		I. Mwandia
3	FREZY A. KANJINGA	M	MTHIRANSEMBE	INSTRUCTOR	0991592350		F. Kanjunga
4	HASINUS CHAWINJA	M	MTHIRANSEMBE	GUARDA	0996569351		H. Chawinja

STAKEHOLDER CONSULTATION SIGNING SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	ID Number	Signature
1	ALEXINA RATHA	F	MACODA	HOT	088118805		A. Ratha
2	AUSTIN PHIRI	M	MACODA	ACCOUNTANT	0882334450		A. Phiri
3	McRobert Manjale	M	MACODA	Centre Manager	088563707		M. Manjale

STAKEHOLDER CONSULTATION SIGNING SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	ID Number	Signature
1	KENNETH BANDA	M	SOS VTC	STUDENTS	0993418082		K. Banda
2	ANDREW BANDA	M	SOS VTC	STUDENTS	0996846315		A. Banda
3	Lucy D MPANDA	M	SOS VTC	STUDENTS	0887770051 0991963277		L. Mpanda
4	Kennedy K kaomba	M	SOS VTC	STUDENT	0986649368		K. Kaomba
5	Yongam Muntuli	M	SOS VTC	STUDENT	0884273398 0995536751		Y. Muntuli



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STAKEHOLDER CONSULTATION SIGNING SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	ID Number	Signature
1	MAXWELL ZIMBA	M	KAPONDO	BRL INSTRUCTOR	0999377148	NRE RF262023	[Signature]
2	EVANS KAMWENB	M	"	BUSISW	0993081108	SACCOCK	[Signature]
3	MICHAEL PJ MTHANGO	M	"	CRJ INSTRUCTOR	0996627613	NRE SWEDSIHO	MOM
4	MODRICK MUSTAFA	M	"	Acting Deputy	099544467	RFEDHWE	[Signature]
5	MARCY NDOJIME	F	"	Secretary	0982688517	VCOFESH	[Signature]
6	JOYCE MAYENJE	F	"	MASSENGER	0985163970	AR3A97W	[Signature]
7	PETER NIADAN	M	"	Ground Labour	0993929701	-	[Signature]
8	CHRISTOPHER CHUMPHA	M	"	EXE INSTRUCTOR	0995969769	ROBKWYH	[Signature]
9	ANDREW MGBWE	M	"	PRINCIPAL	099927025	QK9	[Signature]



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INTERNATIONAL BANKING FOR RECONSTRUCTION AND DEVELOPMENT

STAKEHOLDER SIGNING SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	ID Number	Signature
1	Peavan Malinda	M	CP-DC	DIO	0995264361		[Signature]
2	Haddy Mulembe	M	CP-DC	DCDO	0884126953	M3MWSIN	[Signature]
3	Kondwani Kasong	M	CP-DC	DLO	0888645582	DDPISRAE	[Signature]
4	Patricia Kayuni	F	Antigua AU	Bureau Chief	0888834782	SAME9591	[Signature]
5	Elicia Chilima	F	CP-DC	Intern	0881574151		[Signature]
6	Gloria Kaurda	F	CP-DC	Secretary	0985325393	W9291925	[Signature]



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STAKEHOLDER SIGNING SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	ID Number	Signature
	Mphahlele Nelson	M	CP-DC	DEMO	0994209891	TSGRETEV	[Signature]
	Marios Mbandawire	M	CP-DC	PNMAD	0888610156	SB3ZWR05	[Signature]
	Daniel Mhau	M	CP-DC	DFU	0882824566	V32F196	[Signature]
	Soga Luhama	F	CP-DC	SWO	0999064185	U783DKE	[Signature]
	Kumbukani Mumbanyembe	M	EP-DOA	DFU-Fisheries	099139007	RSR790KP	[Signature]
	Allanson Lamanga	M	VOL-Radio	BC	0999488464	S000H99	[Signature]
	McAdams Mthone	M	CP-DC	DPKI	0997248575	R2AWVSK	[Signature]



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No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	ID Number	Signature
	Makani Mwakhanang	M	KDC	CO	088451922	QJTHACAP	[Signature]
	Christin Chikabulo	M	KDC	ASST	0997064870	U0061003	[Signature]
	Simeloy Kondwe	M	KDC	ALO	0995435131	PPMBEATT	[Signature]
	Abigail Simbeye	F	KDC	EDO	0995385339	OWZNOVES	[Signature]
	ulemu Nyondo	M	KDC	PFO	0994142707	VYSSAGOT	[Signature]
	Jessie Mwanabanga	F	KAMD	CAO	0884249405	MCAAPADK	[Signature]
	Khumbo Mbeye	M	KA-DC	PEO	0888685573		[Signature]



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No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	ID Number	Signature
1.	HAIDE GONDWE	F	KASAMA CTC	ENTERTAINMENT STUDENT	0989317989 0882126098		[Signature]
2.	Tupokiwe Kayuni	F	"	VICE president student	0883492586 0993532888		[Signature]
3.	Mervice Mataka	F	"	student	0887486007		[Signature]
4.	Alice T Nyirenda	F	"	STUDENT	0894975516		[Signature]
5.	Jennifer sikwese	F	"	Sanitation student	0993840331 0899681454		[Signature]
6.	leticia mchala	F	"	sports	0884206553		[Signature]
7.	Redoice mwamlima	F	"	student religious	0981932092		[Signature]



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STAKEHOLDER SIGNING SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	ID Number	Signature
1	Selkani Kalengo	M	HSA CHITRA DHO	HSA	0992479263	PWMAKCFH	[Signature]
2	Evans & Simuwelo	M	Education CHITRA DEN	PEA	0888031174	K7B6V8CA	[Signature]
3	Mackwell Kayira	M	Chif. Zambwa	Zambwa VDC	0991806786		[Signature]



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STAKEHOLDER SIGNING SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	ID Number	Signature
1	PATIENCE NYUMA	F	KASAMA CTC	SECRETARY	0994134300		
2	WELIVE MUYITAHI	F	KASAMA CTC	Instructor	099682519		
3	PRINCE BANDA	M	KASAMA CTC	D/PRINCIPAL	0994083654		
4	William Kamanga	M	Kasama CTC	Instructor	0885830744		
5	Francis Chiumia	M	Kasama CTC	kurson	0991341161		
6	BENJAMIN MBATE	M	KASAMA CTC	Instructor	0997504271		
7	KONBUANI MIIROKHO	M	KASAMA CTC	PRINCIPAL	0997958410		
8	Phyllisone Dube	M	Agriculture Dept	SECRETARY	0884302056		
9	Lourie Chilingulo	F	B/Kasomhead	ADC chair	0995115136		L.chilingulo
10	Malani Silumbu	M	M Silumbu	security	0996899268		M.Silumbu
11	Blessing Mnkumbuz	M	Kasama	ccm	0991409501		



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STAKEHOLDER SIGNING SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	ID Number	Signature
1	Davie Muyika	M	Kasama CTC	Entertainment Prefect Student	0992474401		
2	Joseph Mwakabagha	M	Kasama CTC	School time-keeper Student	088867825 0992432245	KWFAVF KIG	David
3	Happy Mtambo	M	Kasama CTC	Vice Secretary	0996920647 0880228520 0882179836		H. Mtambo
4	Abel Mkwandawire	M	Kadama CTC	President	0998648876 088487032		
5	Vincent Kalasho	M	Kasama CTC	Sanitation	0993909443		
6	Joseph Silwimba	M	KASAMA CTC	Sport director	0996905135		
7	Brave Lungwe	M	//	Religious	0993013610	EIE	Mas



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STAKEHOLDER ALLOWANCE SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	Amount	Signature
1	Mhangochi Zelida	F	Mbuluzi Technical		0991081930		Z.M
2	Albert Chikungwa	M	Mbuluzi Technical	Students	0887470733		A.C
3	Robert Nyirongo	M	Mbuluzi Technical	SPORTS/Student	0881784782		R.N
4	Elisah Mhangochi	F	Mbuluzi Technical	Sanitation/Student	0885755065		E.M
5	HOPE MTHOQHO	M	Mbuluzi Technical	President/Student	0886802365		H.M
6	Isiah Chiumia	F	Mbuluzi Technical	student	0992354369		I.Chiumia
7	CECILIA CHIRAMBO	F	Mbuluzi Technical	SPORTS	0984195707		C.C CHIRAMBO
8	Titumbuka Fidei	f	Mbuluzi Technical	SPORTS/Student	0982175405		F. Titumbuka
9	Dorothy Nyirenda	F	Mbuluzi Technical	vice president/Student	0982366952		D. Nyirenda
10	Peter Mbandawire	M	Mbuluzi Technical	Student	0880028739		P. Mbandawire
11	Chiwemi Ngwira	M	Mbuluzi Technical	student	0981851306		Ngwira
12	Chimuswe Chipaya	M	Mbuluzi Technical	student	0982186362		Chipaya
13	Samuel Nsasa	M	Mbuluzi Technical	student	0885487552		Nsasa



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No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	Amount	Signature
1	Margaret Mung'ala	F	Mbuluzi CSDC	Secretary	0881936492		M
2	Moses Kondwe	M	Mbuluzi CSDC	Instructor	0886465307		Kondwe
3	Eddings S. Mbandawire	M	Mbuluzi CSDC	Principal	0988121255		E.S Mbandawire
4	BREKID KAYIBWA	M	Mbuluzi CSDC	Instructor	0994959799		Kayibwa
5	James Chiumia	M	Mbuluzi CSDC	Secretary	0994227829		Chiumia
6	Enock Mwakwongo	M	Mbuluzi CSDC	Instructor	0993645393		Mwakwongo
7	Hudson Kumbwende	M	Mbuluzi CSDC	Stores clerk	0995536456		H. Kumbwende



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STAKEHOLDER ~~APPROVAL~~ SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	Signature	Signature
1	Joshua K Mziya	M	Miracle technical	Minister of Spiritual	0994955111		JSM
2	Victor T Munkhondya	M	Miracle Technical	President	0988856420		V
3	Alex Chiswaya	M	Miracle Tec	Minister of Entem	0991338731		AC
4	PILILAN Ligora	M	Miracle Tech	Doom father	0998003676		P Ligora



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STAKEHOLDER ~~APPROVAL~~ SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	Signature Id number	Signature
1	Natosha Bonga	F	Miracle technical	Minister of Sports Student	0824190252		NB
2	Joshua K Mziya	M	Miracle technical	Minister of spiritual	0994955111		JSM
3	CHISOMOD. CHIEWA	F	MIRACLE TECHNICAL	VICE PRESIDENT	0990059270		CC
4	Victor Tuntuwaka Munkhondya	M	MIRACLE TECHNICAL	PRESIDENT	0988856420		V
5	Faith Keshine Ntunga	F	Miracle Technical	VICE entertainment minister	0984674265		FN
6	Winnie Mwase	F	MIRACLE TECH	Minister of Information.	099785919	00RINWJ	W
7	Alex Chiswaya	M	Miracle Tech	Minister of enter	0991338731		AC
8	Ivy Singano	F	MIRACLE TECH	Suitation minister	0993673453		IS
9	Khwima Kanyenda	F	MIRACLE TECH	minister	0884120484		K Kanyenda
10	PILILAN LIGORA	M	MIRACLE TECH	Doom father	0998003676	W8TNR4 W8ANTNR4	P Ligora



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STAKEHOLDER ~~ALLOWANCE~~ SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	Signature	Signature
1	Natasha Bonga	F	Miracle technical	Minister of Sports Student	0336190252		NB
2	CHISOMO D CHIREWA	F	MIRACLE TECHNICAL	VICE PRESIDENT	0990059270		Chirewa
3	Faith Kerishine Ntanya	F	Miracle Technical	Minister of Entertainment	0984674265		FN
4	Winnie Mwahe	F	Miracle Tech	Student	0991758919		Winnie
5	Iry Singano	F	Miracle Tech	Student	0993573453		Iry
6	Kuwima Kangenda	f	Miracle Tech	Student	0884120484		K. Kangenda



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STAKEHOLDER ~~ALLOWANCE~~ SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	Signature	Signature
1.	FRANK WANDA	M	MIRACLE TECHNICAL INSTITUTE	ENTREPRENEURSHIP INSTRUCTOR	0884041514		Frank
2	WYCLIFF MKANDBAGOTRE	M	MIRACLE TECH INSTITUTE	FOOD PRODUCTION	0224411601 / 0997757165		Wycliff
3	Jimmy Njiranda	M	"	ICT	0884246536		Jimmy
4	Anisto Mphande	f	"	food production	0888465659		Anisto
5-	Stephen Chintwiro	M	Miracle Tech Institute	Dean of studies (Comp)	0992610563		Stephen



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STAKEHOLDER CONSULTATION SIGNING SHEET

No	Name of participant	Gender (M/F)	Institution/Location	Position	Contacts	ID Number	Signature
1	Innocent Lugoma	M	Com. Dev	PCDD	0999 193 20	REZGNYFL	
2	Veronica Linyama	F	Labour	DLO	0999 351 224	MNTSYPRG	VMSZ
3	Monica Muzakwanda	F	Mzuzu City Council	Town Planning office	0999 385376	SIPNJTID	
4	Franco Gondwe	M	Aspe (w)	JRCO	099 4362564	KSYMAW30	
5	Aron Masiwa	M	Public Works Dept	ASDPW	0999 496026	RKXOBYVZ	
6	John - C. Muzau	M	Asstic (w)	Asstic	088834216		

A2.4 Pictures taken during consultations





REDMI NOTE 13 PRO



REDMI NOTE 13 PRO



PERM NOTE 19 PPO









Annex 3: 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	Institution PIU; District Social Welfare Office (DSWO)	<ul style="list-style-type: none"> ● Identify GBV service providers in the area. ● Identify vulnerable groups within the community. ● Inform community members about the details of the project and the GBV risks associated with the project. ● GBV training including what to do in case of grievance.
GBV training for GRC, contractor and staff, consultants and adjoining community members	Institution PIU; Contractor; DSWO	<ul style="list-style-type: none"> ● Training and sensitisation of all workers associated with the project on GBV and how the project can contribute to GBV risks. ● Training and sensitisation of adjoining communities on GBV risks, channels to report GBV incidents and services available for GBV survivors.
Codes of conduct signed and understood	Institution PIU; Contractor	<ul style="list-style-type: none"> ● Ensure requirements in the CoCs are clearly understood by those signing. ● Have the CoCs signed by all those with physical presence in the site. ● Train construction workers on the behaviour obligation under the CoCs.
Handling GBV complaints (including support of survivors)	GRM	<ul style="list-style-type: none"> ● Grievance Redress Committees to ensure confidential complaint uptake mechanisms are in place . ● The GBV cases should be immediately reported to the Police (Victim Support Unit), District Social Welfare Office, psychosocial support institutions working in the project area or district.

Provision of separate, safe and easily accessible facilities for women and men working on the site	Institution PIU; Contractor	<ul style="list-style-type: none"> ● Ensure construction sites have separate facilities like toilets and/or bathrooms for men and women.
Monitoring and reporting	Institution PIU; Contractor; DSWO	<ul style="list-style-type: none"> ● Selection of monitoring indicators (such as: No. of reported cases of GBV; Resolved cases and time it took to address the complaints, No. of workers that have attained GBV training courses; No./percentage of workers that have signed CoC and No. of GBV cases that were referred to the GBV service provider). ● Ensure new risks are uncovered and mitigated.

Annex 4: 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 5: Child Safety Management Plan

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

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

Annex 6: Biodiversity survey

A6.1 Flora

KAPONDO TECHNICAL SKILLS DEVELOPMENT COLLEGE						
SPECIES NAME	LIFE FORM	FAMILY	LOCAL NAME	IUCN CATEGOR Y NATIONA LLY	STATU S	LOCAL USE OF SPECIES
Brachystegia spiciformis Benth	Tree	Fabaceae	Tsamba, musani	LC	Indigen ous	Firewood, Shade
<i>Markhamia obtusifolia</i> (Baker) Sprague	Tree	Bignoniaceae	Msewa	NE	Indigen ous	Firewood, Shade
<i>Holarrhena pubescens</i> (Buch.-Ham.) Wall. ex G.Don	Tree	Apocynaceae	Kakope, chipeta	LC	Indigen ous	Medicinal, Firewood
Burkea africana Hook	Tree	Fabaceae	Mkalati, kawizu	LC	Indigen ous	Firewood, Shade
<i>Senna spectabilis</i>	Tree	Fabaceae	Kesha wa maluwa	LC	Indigen ous	Medicinal
<i>Senna siamea</i> (Lam) H. S. Irwin & Barneby.	Tree	Fabaceae	Kesha wa milimo	NE	Exotic	Firewood, Shade
Brackenridgea zanzibarica	Shrub/tree			Rare	Indigen ous	Medicinal
Ochna schweinfurthiana F. Hoffm	Tree	Ochnaceae	Phanthwe mgundanguluwe	Common	Indigen ous	Medicinal

<i>Combretum adenogonium</i> Steud. ex A.Rich.	Tree	Combretaceae	Chinama, kadale	LC	Indigenous	Timber, Firewood, Shade
<i>Combretum zeyheri</i> Sond.	Tree	Combretaceae	Kadale, mkute	LC	Indigenous	Timber, Firewood, Shade
<i>Sclerocarya birrea</i> (A. Rich)Hochst	Tree	Anacardiaceae	Mfuula	NE	Indigenous	Fruits, Firewood
<i>Diospyros lycioides</i> (Deof.) A.DC.	Shrub	Ebenaceae	Chilechete	Threatened	Indigenous	Fruits, medicinal
<i>Cymnosporia buxifolia</i> Loes.	Shrub/tree		Ligoga	NE	Indigenous	Medicinal
<i>Senna singuenna</i> (Delile) Lock.	Shrub/tree	Fabaceae		Common	Indigenous	Medicinal
<i>Pterocarpus angolensis</i> DC.	Tree	Fabaceae	Mlombwa	EN	Indigenous	Timber, Firewood, Shade
<i>Combretum molle</i> R.Br.ex.Don	Tree	Combretaceae	Kadale, mulama	LC	Indigenous	Timber, Firewood, Shade
<i>Maesa lanceolata</i> Forsk	Tree		Mkakama,manga chule	Common	Indigenous	Medicinal
<i>Bauhinia petersiana</i> Bolle	Tree	Fabaceae	Mpando. Mpandula	LC	Indigenous	Fruits, Shade, Agroforestry
<i>Philenoptera violaceae</i> (Klotzsch.) Schrire.	Tree	Fabaceae	Chiphakasa	LC	Indigenous	Agroforestry, Shade

<i>Vangueria infausta</i> Burch.	Tree	Rubiaceae	Mbilima, mziru	LC	Indigenous	Fruits, Firewood
<i>Psychotria mahonii</i> C.H. Wright	Shrub	Rubiaceae		LC	Indigenous	Environmental use
<i>Multidentia crassa</i> (Hiern.)Bridson & Verd.	Tree	Rubiaceae	Mviro	LC	Indigenous	Fruits, medicinal
<i>Kigelia africana</i> (Lam.)Benth	Tree	Bignoniaceae	Mvunguti sausage tree	Threatened	Indigenous	Medicinal
<i>Diosypros zombensis</i> (B.L.Burt.)F.White	Tree	Ebenaceae	Mdima, mkulakula	Threatened	Indigenous	Fruits, medicinal
<i>Flueggea virosa</i> (Roxb. ex Willd.) Royle.	Tree	Euphorbiaceae	Kamemana, kapilapira	NE	Indigenous	Environmental use
<i>Albizia versicolor</i> Welw. ex Oliv.	Tree	Fabaceae	Mtangatanga	LC	Indigenous	Medicinal, Firewood
<i>Thespesia garckeana</i> F . Hoffm.	Tree	Malvaceae	Matowo	LC	Indigenous	Fruits, Firewood
<i>Albizia adiantifolia</i>	Tree	Malvaceae	Mtangatanga, chisale	LC	Indigenous	Medicinal, Firewood
<i>Cleistochlamys kirkii</i> (Benth.) Oliv.	Tree	Annonaceae	Mkalango	LC	Indigenous	Fruits, Firewood
<i>Terminalia sericea</i> Burch. ex DC.	Tree	Combretaceae	Naphini	EN	Indigenous	Timber, Firewood, Shade
<i>Diospyros mesipiliformis</i> Hochst ex A. DC.	Tree	Ebenaceae	Nyelenje, msumwa	LC	Indigenous	Fruits, Firewood
<i>Psychotria eminiana</i> (Kuntze.)E.M.A.	Shrub	Rubiaceae	Chisukunthu	Rare	Indigenous	Vegetables

<i>Schebera alata</i> (Hochst.) Welw.			Msisita, mbalmphande	Rare	Indigenous	Firewood, Shade
<i>Parinari curatelifolia</i> Planch. Ex Benth	Tree	Chrysobalana ceae	Muula	Threatened	Indigenous	Fruits, firewood, poles
<i>Strychnos spinosa</i> Lam.	Tree	Loganiaceae	Mateme, msongobo	Threatened	Indigenous	Fruits
<i>Manihot glaziovii</i> Muer. Arg	Tree	Euphorbiaceae	Mpira, kabanti	Rare	Exotic	Vegetables
<i>Psorospermum febrifugum</i> Spach.	Shrub	Clusiaceae	Mdima, kabvundula	Rare	Indigenous	Medicinal
<i>Ormocarpum kirkii</i> S.Moore	Tree	Fabaceae	Lunemela	LC	Indigenous	Medicinal
<i>Azelia quanzensis</i> Wew.	Tree	Fabaceae	Msambamfumu	EN	Indigenous	Medicinal, Firewood
<i>Ficus sycomorus</i> L.	Tree	Moraceae	Mkuyu	LC	Indigenous	Medicinal, Firewood
<i>Xeroderris stuhlmannii</i> (Taub.) Mendonca & EP Sousa	Tree	Fabaceae	Mlonde, mtutumuko	NE	Indigenous	Medicinal, Firewood
<i>Ficus natalensis</i> Hochst.	Tree	Moraceae	Kachere	LC	Indigenous	Medicinal, Firewood
SONDA TECHNICAL SKILLS DEVELOPMENT COLLEGE						
<i>Brachystegia taxifolia</i> Harms.	Tree	Fabaceae	Musami, tuunda	LC	Indigenous	Timber, Firewood, Shade

<i>Syzygium guineense</i> (Wild.)	Tree	Moraceae	Katope, mfuwa	Threatened	Indigenous	Fruits, firewood
<i>Psorospermum febrifugum</i> Spach.	Shrub	Clusiaceae	Mdima, mtsiloti	Rare	Indigenous	Medicinal
<i>Parinari curatelifolia</i> Planch. Ex Benth	Tree	Chrysobalana ceae	Muula	Threatened	Indigenous	Fruits, firewood, poles
<i>Pinus patula</i> Schlect. And. Cham.	Tree	Pinaceae	Paini	Threatened	Exotic	Timber
<i>Harungana madagascariensis</i> Lam. ex Poir.	Tree	Clusiaceae	Mbuluni	Rare	Indigenous	Medicinal, Firewood
<i>Gmelina arborea</i> Roxb.	Tree	Verbenaceae	Malaina	NE	Exotic	Timber, Firewood, Shade
<i>Duranta repens</i> L.	Shrub	Verbenaceae	Chibelezi	Common	Exotic	Ornamental
<i>Bridelia micrantha</i> (Hochst.) Bail	Tree	Euphorbiaceae	Mpasa, msongamino	EN	Indigenous	Timber, Firewood, Shade
<i>Prunus perpica</i> (Lam.) Stokes.	Tree	Rosaceae	Pichesi	Threatened	Exotic	Fruits, firewood
<i>Mangifera indica</i> L	Tree	Anacardiaceae	Mango	NE	Exotic	Fruits, Firewood
<i>Eriobotrya japonica</i> (Thund.) Engl.	Tree	Rosaceae	Loquat	Common	Exotic	Edible
<i>Keetia queinzii</i> (Sond.) Bridson.	Shrub/tree	Rubiaceae	Mluma	Rare	Indigenous	Medicinal

<i>Psidium guajava</i> L.	Tree	Myrtaceae	Gwafa	Common	Exotic	Fruits, firewood
<i>Dodonaea viscosa</i> Jacq.	Tree	Sapindaceae	Nandolo, mlaka	Common	Indigen ous	Firewood
<i>Draceana reflexa</i> Lam.	Tree	Agavaceae	Mphembela	Common	Indigen ous	Medicinal
<i>Phyllanthus ovalifolium</i> Forsk	Shrub	Phyllanthacea e	Ntanthanyerere	Common	Indigen ous	Medicinal
<i>Brachystegia spiciformis</i> Benth	Tree		Tsamba, kamponi	LC	Indigen ous	Firewood, Shade
<i>Julbernardia globiflora</i> (Benth.) Troupin.	Tree	Fabaceae	Mchenga, kamponi	LC	Indigen ous	Timber, Firewood, Shade
<i>Pericorpsis angolensis</i> (Bak) Van Meeuwen.	Tree	Fabaceae	Muwanga	EN	Indigen ous	Timber, Firewood, Shade
<i>Ochna schweinfurthiana</i> F. Hoffm	Tree	Ochnaceae	Phanthwe mgundanguluwe	Rare	Indigen ous	Medicinal
<i>Cratelispermum laurinum</i> (Poir.) Benth	Tree	Rubiaceae	Nkhuwewafodya	Rare	Indigen ous	Medicinal
<i>Diospyros lycioides</i> (Deof.) A.DC.	Shrub	Ebenaceae	Chilechete	Threatened	Indigen ous	Fruits, medicinal
<i>Searsia longipes</i> (Engl.) Moffett	Tree	Anacardiacea e	Mtatu, kamwamadzi	Rare	Indigen ous	Medicinal
<i>Psychotria mahonii</i> C.H. Wright	Shrub	Rubiaceae	Mkasu	LC	Indigen ous	Environment al use
<i>Flacourtia indica</i> (Burm. F.) Merr.	Tree	Flacourtiacea e	Nthema, nthudza	NE	Indigen ous	Fruits, Firewood

<i>Erythrina abyssinica</i> Lam ex DC.	Tree	Fabaceae	Muwale	LC	Indigenous	Medicinal, Firewood
<i>Dalbergia arbutifolia</i> Bak.	Climber	Fabaceae	Mtundulusi	Rare	Indigenous	Medicinal, Firewood
<i>Faurea saligna</i> Hark.	Tree	Protaceae	Chinsense, chiere	Rare	Indigenous	Medicinal, Firewood
<i>Eucalyptus saligna</i>	Tree	Myrtaceae	Bulugamu	Common	Exotic	Timber, poles, firewood
<i>Eucalyptus camaldulensis</i>	Tree	Myrtaceae	Bulugamu	Common	Exotic	Timber, poles, firewood
<i>Ceiba pentandra</i> (L.) Guerten.	Tree	Bombacaceae	Myali	Rare	Exotic	Ornamental,
<i>Lantana camara</i> L.	Shrub	Verbenaceae	Nakasone	NE	Exotic	Live fencing
<i>Synsepalum muelleri</i> (Kupicha.) T.D.Penn	Tree	Sapotaceae	Menyembe	Rare	Indigenous	Medicinal
CHIZIYA AREA T.A FUKAMUZO NKHATABAY DISTRICT TECHNICAL SKILLS DEVELOPMENT COLLEGE						
<i>Uapaca kirkiana</i> Muell.Arg.	Tree	Phyllanthaceae	Masuku	Threatened	Indigenous	Fruits, firewood
<i>Vitex doniana</i> Sweet	Tree	Lamiaceae	Msipsya, tonongoli	Threatened	Indigenous	Fruits, firewood

<i>Albizia gummifera</i> (Gmel.) C.A.Sm.	Tree	Fabaceae	Mtangatanga	LC	Indigenous	Medicinal, Firewood
<i>Dodonaea viscosa</i> Jacq.	Tree	Sapindaceae	Nandolo, mlaka	Common	Indigenous	Firewood
<i>Uapaca nitida</i> Muella.Arg.	Tree	Phyllanthaceae	Kasokolowe	Threatened	Indigenous	Fruits, firewood
<i>Bridelia micrantha</i> (Hochst.) Bail	Tree	Phyllanthaceae	Mtundi, mpatsa	EN	Indigenous	Timber, Firewood, Shade
<i>Syzygium cordatum</i> Hochst. Ex Krauss	Tree	Myrtaceae	Nyowe	Threatened	Indigenous	Fruits
<i>Trichilia emetica</i> Vahl.	Tree	Meliaceae	Mtsikidzi	LC	Indigenous	Timber, Firewood, Shade
<i>Phoenix reclinata</i> Jacq.	Tree	Palmae	Kanjedza	Threatened	Exotic	Palm products
<i>Annona senegalensis</i> Pers.	Tree	Annonaceae	Mpoza	LC	Indigenous	Fruits, Shade
<i>Brachystegia spiciformis</i> Benth	Tree		Musani, mvukwe	LC	Indigenous	Firewood, Shade
<i>Mimusops zeyheri</i>	Tree	Sapotaceae	Mlevekeza. Mkapa	LC	Indigenous	Firewood, Shade
<i>Hugonia orientalis</i> Engl.	Shrub/tree	Linaceae		LC	Indigenous	Firewood, Shade
<i>Uapaca sansibarica</i>	Tree	Phyllanthaceae	Msuku, masuku	Threatened	Indigenous	Fruits, firewood

Ficus sur Forsk	Tree	Moraceae	Mkuyu	LC	Indigenous	Medicinal, Firewood, fruits
Strychnos spinosa Lam.	Tree	Loganiaceae	Mateme, msongobo	LC	Indigenous	Medicinal, Firewood
Parinari curatelifolia Planch. Ex Benth	Tree	Chrysobalana ceae	Muula	Threatened	Indigenous	Fruits, firewood, poles
Pericorpsis angolensis (Bak) Van Meeuwen.	Tree	Fabaceae	Muwanga	EN	Indigenous	Timber, Firewood, Shade
Psorospermum febrifugum Spach.	Tree	Clusiaceae	Mdima	Rare	Indigenous	Medicinal
Dalbergia arbutifolia Bak.	Tree	Fabaceae	Mtundulusi	Rare	Indigenous	Medicinal, Firewood
<i>Piliostigma thonningii</i> (Schumach.) Milne-Redh.	Tree	Fabaceae		LC	Indigenous	Agroforestry, Shade
Xanthophyllum chalybeum Engl.	Tree	Rutaceae	Mzobala	LC	Indigenous	Medicinal
Synsepalum passergeri (Engl.) T.D.Penn	Shrub/tree	Sapotaceae	Menyembe	Rare	Indigenous	Medicinal
Xymalos monospora (Harv.)Baill.	Tree	Monimiaceae	Chikakalaka	LC	Indigenous	Medicinal
Dalbergia fischeri Taub.	Shrub/tree	Fabaceae	Msasu	Rare	Indigenous	Medicinal, Firewood
Dracaena manii Baker.	Tree	Agavaceae	Mphembela, chipemberwa	Common	Indigenous	Medicinal

Keetia venosum (Oliv.) Hiern.	Shrub/climber	Rubiaceae	Chingolowe, ntundulusi	Rare	Indigenous	Medicinal
Harungana madagascariensis Lam. ex Poir.	Tree	Clusiaceae	Mbuluni	Rare	Indigenous	Medicinal, Firewood
Cratelispermum laurinum (Poir.) Benth	Tree	Rubiaceae	Nkhuwewafodya	Rare	Indigenous	Medicinal
Cremspora triflora (Thonn.)K.Schumach.	Shrub	Rubiaceae	Kangakofi	LC	Indigenous	Medicinal
Phyllanthus reticulatus Poir.	Tree	Phyllanthaceae	Ntanthanyerere	Common	Indigenous	Medicinal
Combretum apiculatum Sond.	Tree	Combretaceae	Kagoro, Kankhuni	LC	Indigenous	Timber, Firewood, Shade
<i>Stereospermum kunthianum</i> Cham	Tree	Bignoniaceae	Kapufa	LC	Indigenous	Medicinal, Firewood
Antidesma venosum E.Mey.ex Tab.	Tree	Phyllanthaceae	Mpungulira	Common	Indigenous	Medicinal, fruits, firewood
Bersam abyssinica Fresen.	Tree	Rubiaceae	Mkanga, nakatimba	Threatened	Indigenous	Charcoal, poles, firewood
Manilkara concolor (Sond.)	Tree	Sapotaceae	Sundwe, mkalala, mtanga	Threatened	Indigenous	Charcoal, firewood
Vangueriopsis lanciflora	Shrub/tree	Rubiaceae	Magulungulu	Rare	Indigenous	Fruits, firewood, poles

Englerophyllum natalensis (Sond.) T.D Penn.	Tree	Sapotaceae	Mkumbo, mpimbinyolo	Common	Indigenous	Fruits, firewood
Manilkara mochisia Sond.	Tree	Sapotaceae	Sundwe, mkalala, mtanga	Threatened	Indigenous	Charcoal, firewood
Chrysophyllum viridifolium	Tree	Sapotaceae	Chifira, mbimbi	Common	Indigenous	Charcoal, firewood
Synsepalum muelleri (Kupicha.) T.D.Penn	Tree	Sapotaceae	Mpiripizi	Rare	Indigenous	Medicinal
Synsepalum brevipes (Baker.) T.D. Penn.	Tree	Sapotaceae	Mpimbinyolo	Rare	Indigenous	Medicinal
PWEZI TECHNICAL SKILLS DEVELOPMENT COLLEGE RUMPHI DISTRICT						
<i>Thespesia garckeana</i> F . Hoffm.	Tree	Malvaceae	Matowo	LC	Indigenous	Fruits, Firewood
<i>Senna petersiana</i> (Bolle) Lock.	Tree	Fabaceae	Mdyapumbwa	LC	Indigenous	Medicinal
<i>Piliostigma thonningii</i> (Schumach.) Milne-Redh.	Tree	Fabaceae	Chitimbe	LC	Indigenous	Agroforestry, Shade
<i>Faidherbia albida</i> (Del) A. Chev.	Tree	Fabaceae	Msangu	LC	Indigenous	Agroforestry, Shade
<i>Acacia polyacantha</i> Wild.	Tree	Fabaceae	Nthethe	NE	Indigenous	Firewood, Shade
<i>Annona senegalensis</i> Pers.	Tree	Annonaceae	Mpoza	LC	Indigenous	Fruits, Shade

<i>Antidesma venosum</i> E.Mey.ex Tab.	Tree	Phyllanthaceae	Mpungulira	Common	Indigenous	Medicinal, fruits, firewood
<i>Ricinus communis</i> L.	Tree	Euphorbiaceae	Tsasi	NE	Exotic	Medicinal
<i>Senna siamea</i> (Lam) H. S. Irwin & Barneby.	Tree	Fabaceae	Keshywa milimo	NE	Exotic	Firewood, Shade
<i>Grewia mollis</i> Juss.	Tree	Tiliaceae	Theza	Common	Indigenous	Medicinal, fruits, firewood
<i>Phyllanthus reticulatus</i> Poir.	Tree	Phyllanthaceae	Ntanthanyerere	Common	Indigenous	Medicinal
<i>Senna spectabilis</i>	Tree	Fabaceae	Keshywa maluwa	Common	Exotic	Firewood
<i>Carica papaya</i> L.	Tree	Caricaceae	Papaya	NE	Exotic	Fruits
<i>Mangifera indica</i> L	Tree	Anacardiaceae	Mango	NE	Exotic	Fruits, Firewood
<i>Annona muricata</i> L.	Tree	Annonaceae	mPOZA	LC	Exotic	Fruits
<i>Pteleopsis myrtifolia</i> (M.a. Lawson.) Engl.& Diels.	Tree	Combretaceae	Kasongola	LC	Indigenous	Timber, Firewood, Shade
<i>Borassus aethiopium</i> Mart.	Tree	Palmae	Mlaza	LC	Exotic	Palm products
<i>Toona ciliata</i> M. Roem.	Tree	Meliaceae	Msendelera	LC	Indigenous	Timber, Firewood, Shade
<i>Ficus sycomorus</i> L.	Tree	Moraceae	Mkuyu	LC	Indigenous	Medicinal, Firewood

<i>Psidium guajava</i> L.	Tree	Myrtaceae	Gwafa	Common	Exotic	Fruits, firewood
<i>Antidesma venosum</i> E.Mey.ex Tab.	Tree	Phyllanthaceae	Mpungulira	Common	Indigenous	Medicinal, fruits, firewood
<i>Mimosa pudica</i> L.	Herb	Fabaceae	Ngoza, ngosa	Common	Indigenous	Medicinal
<i>Musa paradisiaca</i> L.	Shrub	Musaceae	Nthochi	NE	Exotic	Fruits
<i>Kigelia africana</i> (Lam.)Benth	Tree	Bignoniaceae	Mvunguti sausage tree	Threatened	Indigenous	Medicinal, firewood, canoes
<i>Trichilia emetica</i> Vahl.	Tree	Meliaceae	Mtsikidzi	Threatened	Indigenous	Medicinal, poles, charcoal, firewood
<i>Ceiba pentandra</i> (L.) Guertn.	Tree	Bombacaceae	Myali	Rare	Exotic	Ornamental,
MBULUNJI TECHNICAL SKILLS DEVELOPMENT COLLEGE RUMPHI DISTRICT, T.AMWAHENGA, G.V MPHUNGAPUNGA						
<i>Brachystegia boehmii</i> Taub.	Tree	Fabaceae	Mombo. Chiombo	LC	Indigenous	Firewood, Shade
<i>Brachystegia utilis</i> Burt.davy. Hutch	Tree	Fabaceae	Mzale, mvungwe	LC	Indigenous	Firewood, Shade

<i>Combretum adenogonium</i> <i>Steud. ex A.Rich.</i>	Tree	Combretaceae	Kadali, kalama	LC	Indigenous	Firewood, Shade
<i>Monotes africana</i> A.DC.	Tree	Dipterocarpaceae	Mkalakati	LC	Indigenous	Timber, Firewood, Shade
<i>Brachystegia spiciformis</i> <i>Benth</i>	Tree	Fabaceae	Tsamba, musani	LC	Indigenous	Firewood, Shade
<i>Brachystegia manga</i> De Wild.	Tree	Fabaceae	Mpapa	LC	Indigenous	Firewood, Shade
<i>Diplorhynchus condylocarpon</i> (Mull.Arg.) Pichon	Tree	Apocynaceae	Thombodzi	NE	Indigenous	Medicinal
<i>Vitex doniana</i> Sweet	Tree	Lamiaceae	Msipsya, tonongoli	Threatened	Indigenous	Fruits, firewood
<i>Brachystegia allenii</i> <i>Burt. davy. and Hutch</i>	Tree	Fabaceae	Nguti	LC	Indigenous	Firewood, Shade
<i>Brachystegia stipulata</i> De Willd.	Tree	Fabaceae	Bobvu	LC	Indigenous	Firewood, Shade
<i>Brachystegia longifolia</i> <i>Benth.</i>	Tree	Fabaceae	Chiombo	LC	Indigenous	Firewood, Shade
<i>Uapaca nitida</i> Muell.Arg.	Tree	Phyllanthaceae	Kasokolowe	Threatened	Indigenous	Firewood. Timber, charcoal, fruits
<i>Combretum molle</i> <i>R.Br.ex.Don</i>	Tree	Combretaceae	Kadale	LC	Indigenous	Timber, Firewood, Shade

<i>Combretum zeyheri</i> Sond.	Tree	Combretaceae	Kadale, mkute	LC	Indigenous	Timber, Firewood, Shade
<i>Julbernardia globiflora</i> (Benth.) Troupin.	Tree	Fabaceae	Mchenga, kamponi	LC	Indigenous	Timber, Firewood, Shade
<i>Ochna schweinfurthiana</i> F. Hoffm	Tree	Ochnaceae	Phanthwe mgundanguluwe	Common	Indigenous	Medicinal, firewood
<i>Markhamia obtusifolia</i> (Baker) Sprague	Tree	Bignoniaceae	Msewa	Common	Indigenous	Firewood, hoe handles, poles
<i>Ozoroa insignis</i> Delile	Tree	Anacardiaceae	Chiwombola	Common	Indigenous	Medicinal
<i>Markhamia zanzibarica</i> (DC.) Engl.	Tree	Bignoniaceae	Walamba, mewa	Common	Indigenous	Firewood, hoe handles, poles
<i>Senna petersiana</i> (Bolle) Lock.	Tree	Fabaceae	Mdyapumbwa	LC	Indigenous	Medicinal
<i>Vangueria infausta</i> Burch.	Tree	Rubiaceae	Mbilima, mziru	Common	Indigenous	Fruits, firewood, medicinal
<i>Piliostigma thonningii</i> (Schumach.) Milne-Redh.	Tree	Fabaceae	Chitimbe	LC	Indigenous	Agroforestry, Shade
<i>Eucalyptus saligna</i>	Tree	Myrtaceae	Bulugamu	Common	Exotic	Timber, medicinal, poles, firewood

<i>Ficus natalensis</i> Hochst.	Tree	Moraceae	Kachere	Common	Indigenous	Firewood, medicinal
<i>Catunaregum obovata</i> (Hochst.) Keay	Tree	Rubiaceae	Chipembere, msondoke	Common	Indigenous	Medicinal
<i>Eucalyptus camaldulensis</i>	Tree	Myrtaceae	Bulugamu	Common	Exotic	Timber, medicinal, poles, firewood
<i>Pericorpsis angolensis</i> (Bak) Van Meeuwen.	Tree	Fabaceae	Muwanga	EN	Indigenous	Timber, Firewood, Shade
<i>Diospyros mesipiliformis</i> Hochst ex A. DC.	Tree	Ebenaceae	Msumwa	Threatened	Indigenous	Fruits, firewood, poles
<i>Psorospermum febrifugum</i> Spach.	Shrub	Clusiaceae	Mdimba	Common	Indigenous	Medicinal
<i>Pseudolachnostylis maprouneifolia</i> Pax.	Tree	Euphorbiaceae	Msolo	LC	Indigenous	Firewood, Shade
<i>Ziziphus abyssinica</i> Hochst. Ex. A. Rich.	Tree	Rhamnaceae	Kankhande	Common	Indigenous	Medicinal, firewood
<i>Bridelia cathartica</i> Bertol. f.	Tree	Phyllanthaceae	Mtundi, mpatsa	Threatened	Indigenous	Firewood, medicinal
<i>Flueggea virosa</i> (Roxb. ex Willd.) Royle.	Tree	Euphorbiaceae	Kaparankhanga, kapilapira	NE	Indigenous	Environmental use
<i>Holarrhena pubescens</i> (Buch.-Ham.) Wall. ex G. Don	Tree	Apocynaceae	Kakope, chipeta	LC	Indigenous	Medicinal, Firewood

<i>Lannea discolor</i> (Sond.) Engl.	Tree	Anacardiaceae	Chiumbu	LC	Indigenous	Medicinal
<i>Multidentia crassa</i> (Hiern.)Bridson & Verd.	Shrub	Rubiaceae	Mbilima, mziru	Common	Indigenous	Fruits, firewood, medicinal
<i>Dichrostachys cinerea</i> (L.) Wight et Arn.	Tree	Mimosaceae	Mphangala	LC	Indigenous	Medicinal, Firewood
<i>Cussonia arborea</i> Hochst. Ex. A. Rich.	Tree	Araliaceae	M'bwabwa	Common	Indigenous	Medicinal
<i>Allophylus africana</i> Beauv.	Shrub/tree	Sapindaceae	Mtatu, sangasi	Common	Indigenous	Medicinal, fruits, firewood
<i>Euclea crisa</i> (Thunb) Gurke.	Tree	Ebenaceae	Mpata, mpukuso	Common	Indigenous	Medicinal, firewood
<i>Erythrina abyssinica</i> Lam ex DC.	Tree	Fabaceae	Muwale	LC	Indigenous	Medicinal, Firewood
<i>Cassia abbreviata</i> Oliv.	Tree	Fabaceae	Muawawani	LC	Indigenous	Medicinal, Firewood
<i>Zanha africana</i> (Radlk.) Exell	Tree	Sapindaceae	Mtutumuko, mtalala	Common	Indigenous	Medicinal, firewood
<i>Cussonia kirkii</i> Seem.	Tree	Araliaceae	M'bwabwa, Chandimbo	Common	Indigenous	Medicinal
<i>Combretum psidioides</i> Welw.	Tree	Combretaceae	Mkute, kakunguni, msimbiti	Common	Indigenous	Firewood, poles
<i>Xanthophyllum chalybeum</i> Engl.	Tree	Rutaceae	Mzobala. Nkhalachulu	Threatened	Indigenous	Medicinal, vegetables

<i>Turraea nilotica</i> Kotschy and Peyr.	Shrub	Meliaceae	Msindila, mkulabala	Common	Indigenous	Medicinal, firewood
<i>Strychnos madagascariensis</i> Poir.	Tree	Loganiaceae	Mzaye, mateme	Common	Indigenous	Medicinal, poles, firewood
<i>Brachystegia floribunda</i> Benth	Tree	Fabaceae	Tsamba	LC	Indigenous	Firewood, Shade
<i>Thespesia garckeana</i> F . Hoffm.	Tree	Malvaceae	Matowo	LC	Indigenous	Fruits, Firewood
<i>Dalbergia nitidula</i> Welw. Ex. Bak.	Tree	Fabaceae	Mkulasinga, mulengwe	Common	Indigenous	Medicinal, firewood
<i>Pavetta schumanniana</i> F. Hoffm.	Tree	Rubiaceae	Mpumbo, njiliti	Common	Indigenous	Medicinal, firewood
<i>Capparis erythrocarpos</i> Isert.	Tree	Capparaceae	Mkandankhuku	NE	Indigenous	Environmental use
<i>Ficus glomosa</i> Miq/miq.	Tree	Moraceae	Mkuyu	Common	Indigenous	Medicinal, firewood, poles
<i>Pappea capensis</i> Eckl. And Zeyh.	Tree	Sapindaceae	Mkungula, mpita	Threatened	Indigenous	Medicinal, firewood
<i>Annona senegalensis</i> Pers.	Tree	Annonaceae	mPOZA	LC	Indigenous	Fruits, Shade
<i>Diospyros kirkii</i> Hiern	Tree	Ebenaceae	Chigulu,mdima, msangala	LC	Indigenous	Fruits, Firewood
<i>Gymnanthemum coloratum</i> (Wild.) Drake.	Shrub/tree	Asteraceae	Futsa, mfusa	Common	Indigenous	Medicinal, firewood
<i>Vachellia xanthophloea</i> Benth.	Tree	Fabaceae	Chezima, impambuzi	Common	Indigenous	Medicinal, firewood

<i>Syzygium cordatum</i> Hochst. <i>Ex Krauss</i>	Tree	Myrtaceae	Katope, nyowe	Threatened	Indigenous	Fruits, firewood, medicinal
<i>Strychnos gerrardii</i>	Tree	Loganiaceae	Dzai, mteme	Threatened	Indigenous	Medicinal, firewood
<i>Gardenia ternifolia</i> <i>Schumach. & Thonn.</i>	Tree	Rubiaceae	Chikongo	Threatened	Indigenous	Medicinal, firewood
<i>Ficus vallisichoudae</i> Delile.	Tree	Moraceae	Mkuyu	Common	Indigenous	Medicinal, firewood
MIRACLE TECHNICAL SKILLS DEVELOPMENT COLLEGE KARONGA DISTRICT, HOSTEL BLOCK						
<i>Brachystegia spiciformis</i> <i>Benth</i>	Tree	Fabaceae	Musani, mvukwe	LC	Indigenous	Firewood, Shade
<i>Leucaena leucocephala</i>	Tree	Fabaceae	Lukina	Common	Indigenous	Firewood, poles, agroforestry
<i>Eucalyptus saligna</i>	Tree	Myrtaceae	Bulugamu	Common	Exotic	Timber, poles, firewood
<i>Eucalyptus camaldulensis</i>	Tree	Myrtaceae	Bulugamu	Common	Exotic	Timber, poles, firewood
<i>Julbernardia globiflora</i> <i>(Benth.) Troupin.</i>	Tree	Fabaceae	Mchenga, kamponi	LC	Indigenous	Timber, Firewood, Shade

<i>Capparis tomentosa</i> M. Thulin & L.E. Kers.	Liana	Capparaceae	Mkandankhuku	NE	Indigenous	Environmental use
<i>Pteleopsis myrtifolia</i> (M.a. Lawson.) Engl.& Diels.	Tree	Combretaceae	Kasongola	LC	Indigenous	Timber, Firewood, Shade
<i>Crossoptyrx febrifuga</i> (Afzel. Ex G Don) Benth.	Tree	Rubiaceae	Changwe, chumika	LC	Indigenous	Medicinal, Firewood
<i>Citrus sinensis</i> (L.) Osbeck.	Shrub/tree	Rutaceae	Lalanje	Common	Exotic	Fruits, medicinal
<i>Commiphora marlothi</i> Engl.	Tree	Burseraceae	Chimuna, chitohto	Common	Indigenous	Medicinal, firewood
MIRACLE TECHNICAL SKILLS DEVELOPMENT COLLEGE KARONGA DISTRICT, CLASSROOM BLOCK						
<i>Pteleopsis myrtifolia</i> (M.a. Lawson.) Engl.& Diels.	Tree	Combretaceae	Kasongola	LC	Indigenous	Timber, Firewood, Shade
<i>Brachystegia spiciformis</i> Benth	Tree	Fabaceae	Tsamba, kamponi	LC	Indigenous	Firewood, Shade
<i>Julbernardia globiflora</i> (Benth.) Troupin.	Tree	Fabaceae	Mchenga, kamponi	LC	Indigenous	Firewood, Shade
<i>Albizia lebbek</i> (Indian Siri)	Tree	Fabaceae	Mtangatanga	LC	Exotic	Firewood, Shade
<i>Pterocarpus angolensis</i> DC.	Tree	Fabaceae	Mlombwa	EN	Indigenous	Timber, Firewood, Shade

<i>Psydrax parviflora</i> (Afzel.) Bridson.	Tree	Rubiaceae		Threatened	Indigen ous	Firewood
<i>Diplorhynchus condylocarpon</i> (Mull.Arg.) Pichon	Tree	Apocynaceae	Thombodzi	NE	Indigen ous	Medicinal
<i>Pericorpsis angolensis</i> (Bak) Van Meeuwen.	Tree	Fabaceae	Muwanga	EN	Indigen ous	Timber, Firewood, Shade
MIRACLE TECHNICAL SKILLS DEVELOPMENT COLLEGE KARONGA DISTRICT, CLASSROOM BLOCK PLOT 2						
<i>Julbernardia globiflora</i> (Benth.) Troupin.	Tree	Fabaceae	Mchenga, kamponi	LC	Indigen ous	Firewood, Shade
<i>Philenoptera violaceae</i> (Klotzsch.) Schrire.	Tree	Fabaceae	Chiphakasa	LC	Indigen ous	Agroforestry, Shade
<i>Ficus natelensis</i> Hochst.	Tree	Moraceae	Kachere	LC	Indigen ous	Medicinal, Firewood
<i>Pteleopsis myrtifolia</i> (M.a. Lawson.) Engl.& Diels.	Tree	Combretacea e	Kasongola	LC	Indigen ous	Timber, Firewood, Shade
KASAMA COMMUNITY TECHNICA COLLEGE, CHITIPA DISTRICT, T.A MWENECHENDO, G.V MWENE LAMBYA SITE 1						

<i>Parinari curatelifolia</i> <i>Planch. Ex Benth</i>	Tree	Chrysobalana ceae	Muula	Threatened	Indigen ous	Fruits, firewood, medicinal
<i>Strychnos madagascariensis</i> <i>Poir.</i>	Tree	Loganiaceae	Mzaye, mateme	Threatened	Indigen ous	Medicinal, firewood
<i>Senna petersiana</i> (Bolle) Lock.	Tree	Fabaceae	Mdyapumbwa	LC	Indigen ous	Medicinal
<i>Bridelia micrantha</i> (Hochst.) Bail	Tree	Euphorbiacea e	Mpasa	EN	Indigen ous	Timber, Firewood, Shade
<i>Brachystegia spiciformis</i> <i>Benth</i>	Tree	Fabaceae	Tsamba, kamponi	LC	Indigen ous	Firewood, Shade
<i>Bobgania madagascariensis</i> <i>Desf.</i>		Fabaceae	Mulundu	Rare	Indigen ous	Medicinal, fishing poison
<i>Diplorhynchus condylocarpon</i> (Mull.Arg.) Pichon	Tree	Apocynaceae	Thombodzi	NE	Indigen ous	Medicinal
<i>Ochna schweinfurthiana</i> F. <i>Hoffm</i>	Tree	Ochnaceae	Phanthwe mgundanguwe	Common	Indigen ous	Medicinal, firewood
<i>Rothmania whitefieldii</i>	Tree	Rubiaceae	Mpumba, mukungula	Threatened	Indigen ous	Medicinal, firewood
<i>Pseudolachnostylis maprouneifolia</i> Pax.	Tree	Euphorbiacea e	Msolo	LC	Indigen ous	Firewood, Shade
<i>Multidentia crassa</i> (Hiern.)Bridson & Verd.	Tree	Rubiaceae	Mviru	Common	Indigen ous	Fruits, firewood

<i>Combretum zeyheri</i> Sond.	Tree	Combretaceae	Kadale, mkute	LC	Indigenous	Timber, Firewood, Shade
<i>Monotes africana</i> A.DC.	Tree	Dipterocarpaceae	Mkalakati	LC	Indigenous	Timber, Firewood, Shade
<i>Lannea discolor</i> (Sond.) Engl.	Tree	Anacardiaceae	Chiumbu	LC	Indigenous	Medicinal
<i>Dalbergia nitidula</i> Welw. Ex. Bak.	Tree	Fabaceae	Mkolasinga, mlengwe	Common	Indigenous	Medicinal, firewood
<i>Albizia adiantifolia</i>	Tree	Fabaceae	Mtangatanga, chisale	Common	Indigenous	Firewood, poles, charcoal, medicinal
<i>Cassipourea malosana</i> (Bak. Alston.	Tree	Rhizophoraceae	Ndondoli	Threatened	Indigenous	Medicinal, firewood
<i>Brachystegia floribunda</i> Benth	Tree	Fabaceae	Tsamba	LC	Indigenous	Firewood, poles, charcoal, medicinal
<i>Dalbergiella nyassae</i> Bak F.	Tree	Fabaceae	Mlembela, mulundu	LC	Indigenous	Firewood, Shade
<i>Burkea africana</i> Hook	Tree	Fabaceae	Mkalati, kawizu	LC	Indigenous	Firewood, Shade
<i>Pericorpsis angolensis</i> (Bak) Van Meeuwen.	Tree	Fabaceae	Muwanga	EN	Indigenous	Timber, Firewood, Shade

<i>Oldfieldii dactylophlla</i> (Welw. ex. Oliv.) Leon.	Tree	Rubiaceae	Muwonga	Threatened	Indigenous	Medicinal, firewood
<i>Piliostigma thonningii</i> (Schumach.) Milne-Redh.	Tree	Fabaceae	Chitimbe	LC	Indigenous	Agroforestry, Shade
<i>Dichrostachys cinerea</i> (L.) Wight et Arn.	Tree	Mimosaceae	Mphangala	LC	Indigenous	Medicinal, Firewood
<i>Euclea crista</i> (Thunb) Gurke.	Tree	Ebenaceae	Mpata, mpukuso	Common	Indigenous	Medicinal, Firewood
<i>Ozoroa insignis</i> Delile	Tree	Anacardiaceae	Mtukumbako, mbewe	Common	Indigenous	Medicinal, Firewood, poles, charcoal
<i>Uapaca nitida</i> Muell.Arg.	Tree	Phyllanthaceae	Kasokolowe	Threatened	Indigenous	Timber, firewood, medicinal
<i>Olax obtusifolia</i>	Tree	Olacaceae	Msemandolo	Threatened	Indigenous	Medicinal, Firewood
<i>Anisophyllea boehmii</i> Engl. And Brehm.	Tree	Rhizophoraceae	Mangondo	Threatened	Indigenous	Fruits, firewood, Charcoal
<i>Isobertinia Stolzii</i> Harms.	Tree	Fabaceae	Mbwerebwere	Threatened	Indigenous	Charcoal, firewood
<i>Combretum zeyheri</i> Sond.	Tree	Combretaceae	Kadale, mkute	LC	Indigenous	Timber, Firewood, Shade
<i>Brachystegia allenii</i> Burt. davy. and Hutch	Tree	Fabaceae	Chiombo	LC	Indigenous	Timber, Firewood, Shade

KASAMA COMMUNITY TECHNICAL COLLEGE, CHITIPA DISTRICT, T.A MWENECHENDO, G.V MWENE LAMBYA SITE 2						
<i>Mangifera indica</i> L	Tree	Anacardiaceae	Mango	NE	Exotic	Fruits, Firewood
<i>Citrus sinensis</i> (L.) Osbeck.	Tree	Rutaceae	Lalanje	Common	Exotic	Fruits, firewood, medicinal
<i>Persea americana</i> Mill.	Tree	Lauraceae	Peyala	NE	Exotic	Fruits, firewood, medicinal
<i>Citrus limonium</i> (L.) Burm.f.	Tree	Rutaceae	Mandimu	Common	Exotic	Fruits, firewood, medicinal
<i>Psidium guajava</i> L.	Tree	Myrtaceae	Gwafa	Common	Exotic	Fruits, firewood, medicinal
<i>Pinus patula</i> Schlect. And. Cham.	Tree	Pinaceae	Paini	Common	Exotic	Timber, firewood, medicinal
<i>Lycopersicon esculentum</i> Mill.	Herb	Solanaceae	Pweteke, tomato	Common	Exotic	Fruits, medicinal
<i>Ananas comosus</i> (L.) Merr.	Herb	Bromeliaceae	Nanasi	Common	Exotic	Fruits, medicinal
<i>Brassica juncea</i> (L.) Czern.	Tree	Meliaceae	Mpira	Common	Exotic	Vegetables

<i>Melia azedarach</i> L.	Tree	Meliaceae	Indiya	NE	Exotic	Firewood, Shade
<i>Broenardia salicina</i> (valh.) Hepper & Wood.	Tree	Rubiaceae	Chonya, mugwina	EN	Indigen ous	Timber, Firewood, Shade
<i>Tephrosia vogelii</i> Hook.f.	Shrub	Fabaceae	Nthutu, mtetezga	Common	Exotic	Agoforestry, firewood, medicinal
<i>Erythrophleum suaveolens</i>	Tree	Fabaceae	Mwavi	Endengared	Indigen ous	Medicinal, firewood, charcaol
<i>Senna spectabilis</i>	Tree	Fabaceae	Keshya maluwa	Common	Exotic	Agoforestry, firewood, medicinal
KASAMA COMMUNITY TECHNICA COLLEGE, CHITIPA DISTRICT, T.A MWENECHENDO, G.V MWENE LAMBYA SITE 3, BOYS HOSTEL						
<i>Diplorhynchus condylocarpon</i> (Mull.Arg.) Pichon	Tree	Apocynaceae	Thombodzi	NE	Indigen ous	Medicinal
<i>Brachystegia spiciformis</i> Benth	Tree	Fabaceae	Tsamba, musani	LC	Indigen ous	Firewood, Shade
<i>Dalbergia nitidula</i> Welw. Ex. Bak.	Tree	Fabaceae	Mkolasinga, mlengwe	Common	Indigen ous	Medicinal, firewood

<i>Strychnos gerrardii</i>	Tree	Loganiaceae	Nzaye	Common	Indigenous	Medicinal, firewood
<i>Lannea discolor</i> (Sond.) Engl.	Tree	Anacardiaceae	Chiumbu	LC	Indigenous	Medicinal
<i>Brachystegia boehmii</i> Taub.	Tree	Fabaceae	Bobvu	LC	Indigenous	Firewood, Shade
<i>Rothmannia fischeri</i> (K.Schum.) Keay	Tree	Anacardiaceae	Mangodyola	Threatened	Indigenous	Medicinal, firewood
<i>Pericorpsis angolensis</i> (Bak) Van Meeuwen.	Tree	Fabaceae	Muwanga	EN	Indigenous	Timber, Firewood, Shade
<i>Stereospermum kunthianum</i> Cham	Tree	Bignoniaceae	Kapufa	LC	Indigenous	Medicinal, Firewood
<i>Brachystegia longifolia</i> Benth.	Tree	Fabaceae	Tsamba, bobvu	LC	Indigenous	Firewood, Shade
<i>Isoberlinia Stolzii</i> Harms.	Tree	Fabaceae	Mbwerebwere	Threatened	Indigenous	Charcoal, firewood
<i>Combretum adenogonium</i> Steud. ex A.Rich.	Tree	Combretaceae	Kadale, chinama	LC	Indigenous	Timber, Firewood, Shade
<i>Flacourtia indica</i> (Burm. F.) Merr.	Tree	Flacourtiaceae	Nthudza, nthema	NE	Indigenous	Fruits, Firewood
<i>Commiphora mossambicensis</i> (Oliv.) Engl.	Tree	Burseraceae	Chitontho	NE	Indigenous	Environmental use
<i>Euclea crispa</i> (Thunb) Gurke.	Tree	Ebenaceae	Mpata, mpukuso	Common	Indigenous	Medicinal, firewood

<i>Pseudolachnostylis maprouneifolia</i> Pax.	Tree	Euphorbiaceae	Msolo	LC	Indigenous	Firewood, Shade
<i>Bridelia cathartica</i> Bertol. f.	Tree	Phyllanthaceae	Mtundi	Threatened	Indigenous	Medicinal, firewood
<i>Manilkara mochisia</i> Sond.	Tree	Sapotaceae	Sundwe, mkalala, mtanga	Threatened	Indigenous	Medicinal, poles, charcoal, firewood
<i>Multidentia crassa</i> (Hiern.) Bridson & Verd.	Shrub	Rubiaceae	Mviru	Common	Indigenous	Fruits, firewood, medicinal
<i>Brachystegia allenii</i> Burt. davy. and Hutch	Tree	Fabaceae	Nguti	LC	Indigenous	Firewood, Shade
<i>Vitex doniana</i> Sweet	Tree	Lamiaceae	Msipsya, tonongoli	Threatened	Indigenous	Fruits, firewood
<i>Xanthophyllum chalybeum</i> Engl.	Tree	Rutaceae	Mzobala	Common	Indigenous	Medicinal, firewood
<i>Ochna schweinfurthiana</i> F. Hoffm	Tree	Ochnaceae	Phanthwe mgundanguwe	Common	Indigenous	Medicinal, firewood
<i>Cassipourea malosana</i> (Bak.) Alston.	Tree	Rhizophoraceae	Ndondoli	Threatened	Indigenous	Medicinal, firewood
<i>Oldfieldia dactylophlla</i> (Welw. ex. Oliv.) Leon.	Tree	Euphorbiaceae	Muwonga	Threatened	Indigenous	Medicinal, firewood
<i>Piliostigma thonningii</i> (Schumach.) Milne-Redh.	Tree	Fabaceae	Chitimbe	LC	Indigenous	Agroforestry, Shade
<i>Gmelina arborea</i> Roxb.	Tree	Verbenaceae	Malayani	NE	Exotic	Timber, Firewood, Shade

<i>Rothmania engleriana</i>	Tree	Rubiaceae	Mbyolilo	Threatened	Indigenous	Medicinal, firewood
<i>Catunaregum obovata</i> (Hochst.) Keay	Tree	Rubiaceae	Chipembere, msondoke	Common	Indigenous	Medicinal, firewood
<i>Psorospermum febrifugum</i> Spach.	Tree	Clusiaceae	Mdima, mtsiloti	Common	Indigenous	Medicinal, firewood
KASAMA COMMUNITY TECHNICAL COLLEGE, CHITIPA DISTRICT, T.A MWENECHENDO, G.V MWENE LAMBYA SITE 4, DINNING BLOCK						
<i>Isobertinia Stolzii</i> Harms.	Tree	Fabaceae	Mbwerebwere	Threatened	Indigenous	Charcoal, firewood
<i>Monotes africana</i> A.DC.	Tree	Dipterocarpaceae	Mkalakati	Threatened	Indigenous	Charcoal, medicinal, poles, firewood
<i>Brachystegia boehmii</i> Taub.	Tree	Fabaceae	Bobvu	LC	Indigenous	Firewood, Shade
<i>Burkea africana</i> Hook	Tree	Fabaceae	Mkalati, kawizu	LC	Indigenous	Firewood, Shade
<i>Parinari curatelifolia</i> Planch. Ex Benth	Tree	Chrysobalanaceae	Muula	Threatened	Indigenous	Fruits, poles, charcoal. Timber, medicinal

<i>Multidentia crassa</i> (Hiern.) Bridson & Verd.	Shrub	Rubiaceae	Mviru	Common	Indigenous	Fruits, poles, medicinal, firewood
<i>Pseudolachnostylis maprouneifolia</i> Pax.	Tree	Euphorbiaceae	Msolo	LC	Indigenous	Firewood, Shade
<i>Ochna schweinfurthiana</i> F. Hoffm	Tree	Ochnaceae	Phanthwe mgundanguluwe	Common	Indigenous	Medicinal, firewood
<i>Protea welwitschii</i> Engl.	Tree	Protaceae	Chinsense, chiere	Common	Indigenous	Medicinal, firewood
<i>Catunaregum obovata</i> (Hochst.) Keay	Tree	Rubiaceae	Chipembere, msondoke	Common	Indigenous	Medicinal, firewood
<i>Mangifera indica</i> L	Tree	Anacardiaceae	Mango	NE	Exotic	Fruits, Firewood
<i>Mimusops zeyheri</i> Sond.	Tree	Sapotaceae	Mterekeza	Threatened	Indigenous	Medicinal, firewood, charcaol
<i>Diplorhynchus condylocarpon</i> (Mull.Arg.) Pichon	Tree	Apocynaceae	Thombodzi	NE	Indigenous	Medicinal
<i>Pericorpsis angolensis</i> (Bak) Van Meeuwen.	Tree	Fabaceae	Muwanga	EN	Indigenous	Timber, Firewood, Shade
<i>Uapaca nitida</i> Muell.Arg.	Tree	Phyllanthaceae	Kasokolowe	Threatened	Indigenous	Fruits, Firewood
<i>Lannea discolor</i> (Sond.) Engl.	Tree	Anacardiaceae	Chiumbu	LC	Indigenous	Medicinal
<i>Brachystegia spiciformis</i> Benth	Tree	Fabaceae	Tsamba, musani	LC	Indigenous	Firewood, Shade

<i>Brachystegia longifolia</i> Benth.	Tree	Fabaceae	Tsamba, chitowe	LC	Indigenous	Firewood, Shade
<i>Vangueria infausta</i> Burch.	Tree	Rubiaceae	Mbilima, mziru	LC	Indigenous	Fruits, Firewood
<i>Dichrostachys cinerea</i> (L.) Wight et Arn.	Tree	Mimosaceae	Mphangala	LC	Indigenous	Medicinal, Firewood
<i>Piliostigma thonningii</i> (Schumach.) Milne-Redh.	Tree	Fabaceae	Chitimbe	LC	Indigenous	Agroforestry, Shade
<i>Sclerocarya birrea</i> (A. Rich)Hochst	Tree	Anacardiaceae	Mfuula	NE	Indigenous	Fruits, Firewood
<i>Uapaca kirkiana</i> Muell.Arg.	Tree	Phyllanthaceae	Masuku	Threatened	Indigenous	Fruits, Firewood
<i>Dalbergia nitidula</i> Welw. Ex. Bak.	Tree	Fabaceae	Mkolasinga, mlengwe	Common	Indigenous	Firewood, medicinal
<i>Combretum psidioides</i> Welw.	Tree	Combretaceae	Mkute	LC	Indigenous	Timber, Firewood, Shade
<i>Vitex doniana</i> Sweet	Tree	Lamiaceae	Msipsya, tonongoli	Threatened	Indigenous	Fruits, firewood
<i>Strychnos madagascariensis</i> Poir.	Tree	Loganiaceae	Mzaye, mateme	Threatened	Indigenous	Fruits, firewood
<i>Cassipourea malosana</i> (Bak.) Alston.	Tree	Rhizophoraceae	Mkangantimbi	Threatened	Indigenous	Medicinal, Firewood
<i>Bobgania madagascariensis</i> Desf.	Tree	Fabaceae	Mulundu	Threatened	Indigenous	Medicinal, Firewood
<i>Brachystegia utilis</i> Burt.davy. Hutch	Tree	Fabaceae	Mombo	LC	Indigenous	Timber, Firewood, Shade

<i>Stereospermum kunthianum</i> Cham	Tree	Bignoniaceae	Kafupa	LC	Indigenous	Medicinal, Firewood
<i>Cymnosporia buxifolia</i> Loes.	Shrub/tree	Celastraceae	Ligoga	Common	Indigenous	Medicinal, Firewood
<i>Strychnos gerrardii</i>	Tree	Loganiaceae	Mateme, dzayi	LC	Indigenous	Timber, Firewood, Shade
<i>Brachystegia allenii</i> <i>Burt. davy. and Hutch</i>	Tree	Fabaceae	Nguti	LC	Indigenous	Firewood, Shade
<i>Ximenia americana</i>	Shrub	Olacaceae	Mpinjipinji	Common	Indigenous	Fruits, medicinal
<i>Allophylus africana</i> Beauv.	Shrub/tree	Sapindaceae	Ntatu	Common	Indigenous	Medicinal, firewood
<i>Senna petersiana</i> (Bolle) Lock.	Tree	Fabaceae	Mdyapumbwa	LC	Indigenous	Medicinal
<i>Combretum zeyheri</i> Sond.	Tree	Combretaceae	Kadale, mkute	LC	Indigenous	Timber, Firewood, Shade
KASAMA GIRLS HOSTELS PLOT 5						
<i>Brachystegia boehmii</i> Taub.	Tree	Fabaceae	Bobvu	LC	Indigenous	Firewood, Shade
<i>Brachystegia spiciformis</i> <i>Benth</i>	Tree	Fabaceae	Tsamba, musani	LC	Indigenous	Firewood, Shade
<i>Cassipourea malosana</i> (Bak.) Alston.	Tree	Rhizophoraceae	Ndondoli	Threatened	Indigenous	Firewood, medicinal

<i>Uapaca nitida</i> Muell.Arg.	Tree	Phyllanthaceae	Kasokolowe	Threatened	Indigenous	Fruits, firewood, medicinal
<i>Brachystegia stipulata</i> De Willd.	Tree	Fabaceae	Bobvu	LC	Indigenous	Firewood, Shade
<i>Brachystegia allenii</i> Burt. davy. and Hutch	Tree	Fabaceae	Nguti	LC	Indigenous	Firewood, Shade
<i>Brachystegia utilis</i> Burt. davy. and Hutch	Tree	Fabaceae	Mvunje, dzale	LC	Indigenous	Firewood, Shade
<i>Isobertinia Stolzii</i> Harms.	Tree	Fabaceae	Mbwerebwere	Threatened	Indigenous	Firewood, charcoal, medicinal
<i>Mimusops zeyheri</i> Sond.	Tree	Sapotaceae	Mterekeza	Threatened	Indigenous	Medicinal, firewood, charcoal
<i>Monotes africana</i> A.DC.	Tree	Dipterocarpaceae	Mkalakati	LC	Indigenous	Timber, Firewood, Shade
<i>Parinari curatelifolia</i> Planch. Ex Benth	Tree	Chrysobalanaceae	Muula	Threatened	Indigenous	Firewood, charcoal, medicinal
<i>Julbernardia globiflora</i> (Benth.) Troupin.	Tree	Fabaceae	Mchenga, kamponi	LC	Indigenous	Timber, Firewood, Shade
<i>Bobgania madagascariensis</i> Desf.	Tree	Fabaceae	Mulundu	Threatened	Indigenous	Medicinal, firewood, charcoal, poles

<i>Protea welwitschii</i> Engl.	Tree	Protaceae	Chinsense, chiere	Common	Indigenous	Medicinal, firewood, charcoal, poles
<i>Bridelia cathartica</i> Bertol. f.	Tree	Phyllanthaceae	Mtundi	Threatened	Indigenous	Medicinal, firewood
<i>Multidentia crassa</i> (Hiern.)Bridson & Verd.	Tree	Rubiaceae	Mviru	Common	Indigenous	Fruits, firewood, medicinal
<i>Ozoroa insignis</i> Delile	Tree	Anacardiaceae	Mtukumbako, mbewe	Common	Indigenous	Medicinal, firewood
<i>Diplorhynchus condylocarpon</i> (Mull.Arg.) Pichon	Tree	Apocynaceae	Thombodzi	NE	Indigenous	Medicinal
<i>Phyllanthus reticulatus</i> Poir.	Shrub	Phyllanthaceae	Ntanthanyerere	Common	Indigenous	Medicinal, firewood
<i>Ochna schweinfurthiana</i> F. Hoffm	Tree	Ochnaceae	Phanthwe mgundanguluwe	Common	Indigenous	Medicinal, firewood
<i>Pseudolachnostylis maprouneifolia</i> Pax.	Tree	Euphorbiaceae	Msolo	LC	Indigenous	Firewood, Shade
<i>Psorospermum febrifugum</i> Spach.	Shrub	Clusiaceae	Mdimba	Common	Indigenous	Medicinal, firewood
<i>Brachystegia manga</i> De Wild.	Tree	Fabaceae	Mpapa	LC	Indigenous	Firewood, Shade
<i>Ochna katangensis</i> De Wild.	Tree	Ochnaceae	Chkiunganivo, musimba	Common	Indigenous	Medicinal, firewood
<i>Anisophyllea boehmii</i> Engl. And Brehm.	Tree	Rhizophoraceae	Mangondo	Common	Indigenous	Medicinal, firewood

<i>Strychnos madagascariensis</i> Poir.	Tree	Loganiaceae	Mateme, mzaye	Common	Indigenous	Medicinal, firewood, fruits
<i>Vitex doniana</i> Sweet	Tree	Lamiaceae	Msipsya, tonongoli	Threatened	Indigenous	Fruits, firewood
<i>Dichrostachys cinerea</i> (L.) Wight et Arn.	Tree	Mimosaceae	Mphangala	LC	Indigenous	Medicinal, Firewood

A6.2 Fauna

A6.2.1 Birds species list

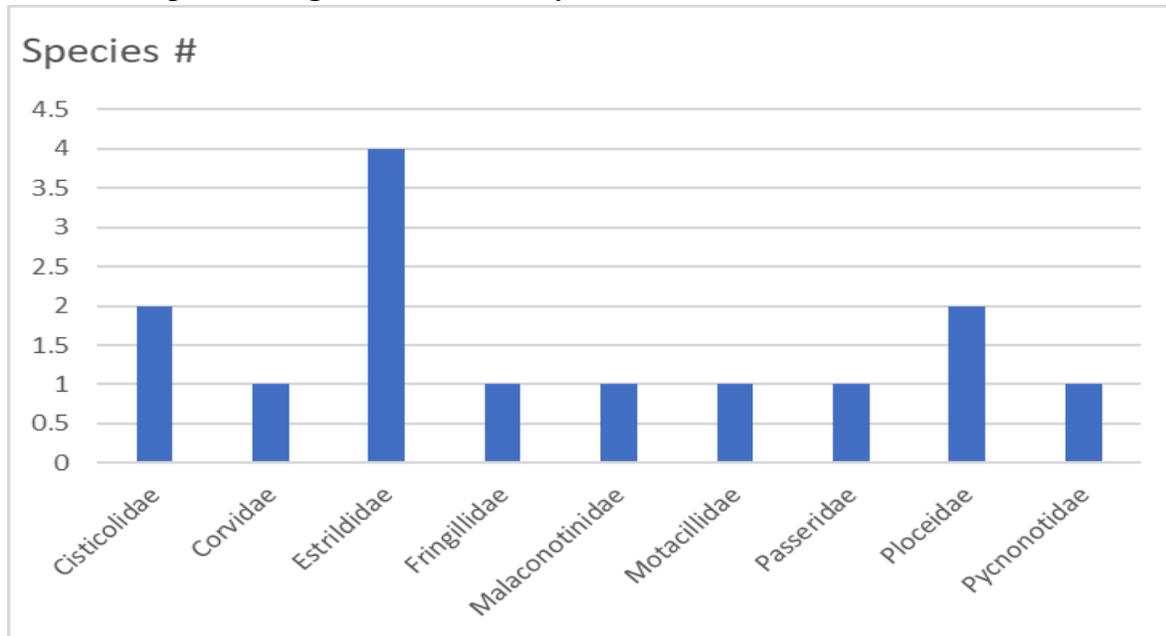
Sr. #	Order	Family name	Common name	Scientific name
1	Passeriformes	Estrildidae	Bronze Manikin	Spermestes cucullata
2	Passeriformes	Fringillidae	Yellow-fronted Canary	Serinus mosambicus
3	Passeriformes	Motacillidae	African Pied Wagtail	Motacilla aquimp
4	Passeriformes	Passeridae	House Sparrow	Passer domestica
5	Passeriformes	Estrildidae	Blue cordonblu	Uraeginthus angolensis
6	Passeriformes	Cisticolidae	Rattling Cisticola	Cisticola chiniana
7	Passeriformes	Ploceidae	Yellow-Rumped Bishop	Euplectes capensis
8	Passeriformes	Cisticolidae	Tawny-flanked Prinia	Prinia subflava
9	Passeriformes	Pycnonotidae	Black-eyed Bulbul	Pycnonotus tricolor
10	Passeriformes	Corvidae	Pied Crow	Corvus albus
11	Passeriformes	Estrildidae	African Firefinch	Lagonosticta rubricata
12	Passeriformes	Estrildidae	Red-billed Firefinch	Lagonosticta senegala
13	Passeriformes	Ploceidae	Red Bishop	Euplectes orix
14	Passeriformes	Malaconotinidae	Brown-headed Tchagra	Tchagra australis

A6.2.1.1 Birds family richness

Sr. #	Family name	Species #
1	Cisticolidae	2
2	Corvidae	1
3	Estrildidae	4
4	Fringillidae	1

5	Malaconotinida e	1
6	Motacillidae	1
7	Passeridae	1
8	Ploceidae	2
9	Pycnonotidae	1

A6.2.1.2 Graph showing the 9 Bird Family richness



A6.2.2 Mammal data list

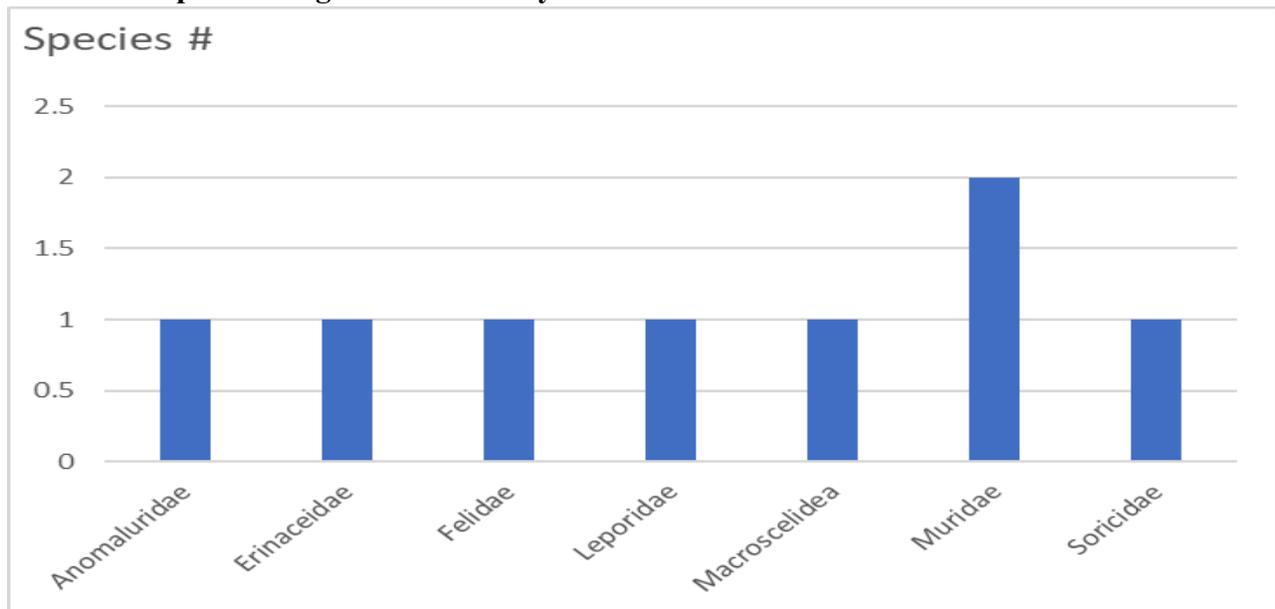
Sr. #	Order	Family name	Common name	Scientific name
1	Macroscelide a	Macroscelide a	Peter's Short snouted sengi	Elephantulus fuscus
2	Eulipotyphla	Soricidae	Tiny Musk Shrew	Crocidura fuscomurina
3	Rodentia	Muridae	Multimammate mouse	mustomys natalensis
4	Rodentia	Muridae	Bushveld Gerbil	Tatera leucogaster
5	Rodentia	Anomalurida e	Tree Squirrel	Paraxerus cepapi
6	Lagomorpha	Leporidae	Scrub Hare	Lepus saxotilis
7	Eulipotyphla	Erinaceidae	Hedgehog	Atelerix albiventris
8	Carnivora	Felidae	African Wild Cat	Feris silvestris cafra

A.6.2.4.1 Mammal family richness

Sr. #	Family name	Species #
-------	-------------	-----------

1	Anomaluridae	1
2	Erinaceidae	1
3	Felidae	1
4	Leporidae	1
5	Macroscelide a	1
6	Muridae	2
7	Soricidae	1

A6.4.4.2 Graph showing mammal family richness



A6.2.3 Reptiles data list

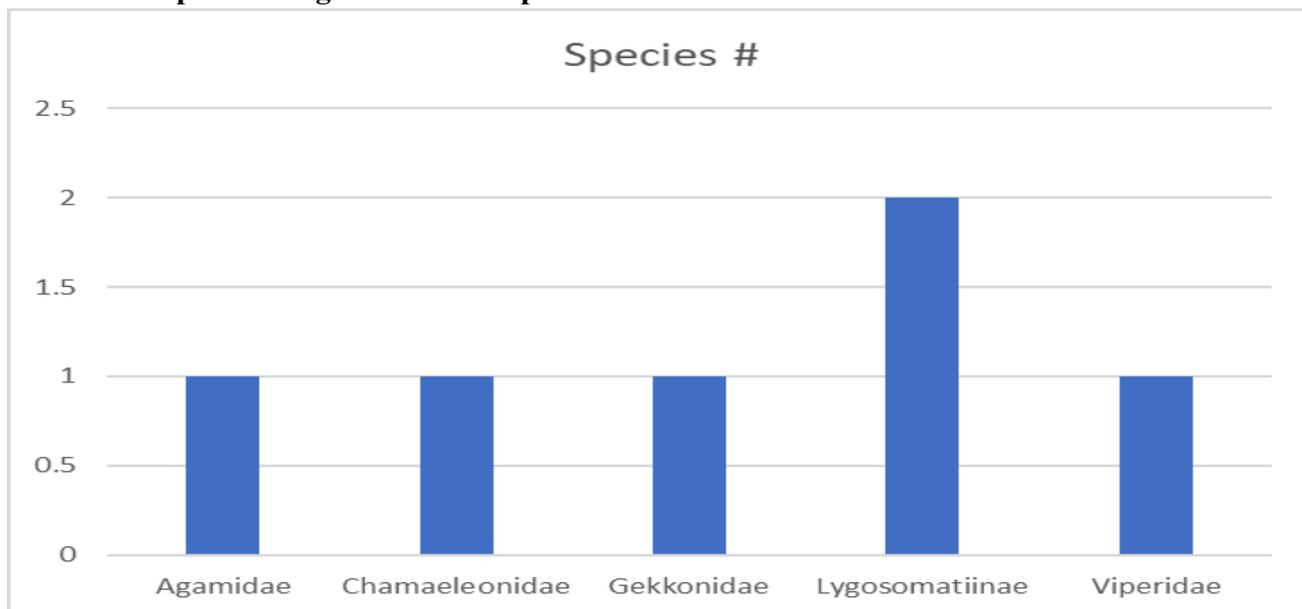
Sr. #	Order	Family name	Common name	Scientific name
1	Squamata	Gekkonidae	Common Dwarf Gecko	Lygodactylus capensis
2	Squamata	Chamaeleonidae	Common Flap-necked Chameleon	Chamaeleo dilepis-dilepis
3	Squamata	Agamidae	Peteter's Ground Agama	Agama armata
4	Squamata	Lygosomatiinae	Variable Skink	Trachylepis varia
5	Squamata	Viperidae	Puff adder	Bitis arietans
6	Squamata	Lygosomatiinae	Stripped Skink	Mabuya striata

A6.2.3.1 Reptiles richness

Sr. #	Family name	Species #
1	Agamidae	1

2	Chamaeleonidae	1
3	Gekkonidae	1
4	Lygosomatiinae	2
5	Viperidae	1

A6.2.3.2 Graph showing richness of reptiles



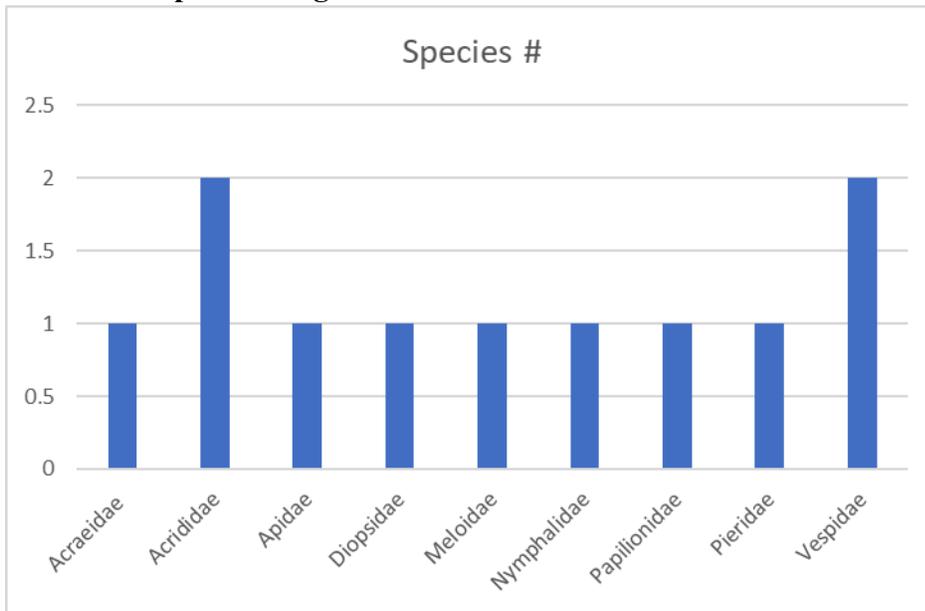
A6.2.4 Insect data list

Sr. #	Order	Family name	Common name	Scientific name
1	Lepidoptera	Pieridae	The African migrant	Catopsilia florella
2	Lepidoptera	Nymphalidae	Brown Pansy	Junonia natalica
3	Hymenoptera	Apidae	Honey bee	Apis mellifera
4	Lepidoptera	Papilionidae	Citrus Swallowtail butterfly	Papilio demodocus
5	Hymenoptera	Vespidae	Social Wasp	Vespula germanica
6	Coleoptera	Meloidae	Blister Beetle	Mylabris tristigma
7	Orthoptera	Acrididae		
8	Orthoptera	Acrididae		Acanthacris ruficornis
9	Orthoptera	Acraeidae	Natal acraea	Acraea natalica
10	Diptera	Diopsidae		Diopsis sp
11	Hymenoptera	Vespidae	Social Wasp	Vespula germanica

A6.2.4.1 Insects richness

Sr. #	Family name	Species #
1	Acraeidae	1
2	Acrididae	2
3	Apidae	1
4	Diopsidae	1
5	Meloidae	1
6	Nymphalidae	1
7	Papilionidae	1
8	Pieridae	1
9	Vespidae	2

A6.2.4.2 Graph showing insect richness



Annex 7: Evidence of land ownership

Telephone: +265 (0) 1 342 255

01991012

Facsimile: +265 (0) 1 342 274



M'MBELWA DISTRICT COUNCIL,

P.O BOX 132,

MZIMBA,

All Correspondences should be addressed to:

The District Commissioner

24 - April - 2024

REF: MZL/49/24

The Regional Commissioner for Lands and Valuation

P.O Box 292

MZUZU.

cc: MINISTRY OF LABOUR

EZONDWENI COMMUNITY TECHNICAL COLLEGE

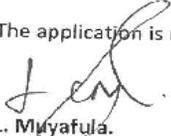
P.O BOX 12

E KWENDENI

APPLICATION FOR LAND ACQUISITION BY MINISTRY OF LABOUR (EZONDWENI COMMUNITY TECHNICAL COLLEGE) AT CHALAMBIRA SHONGBA V.G.C. T/A MTWALO OF 1.770 HECTARES.

Attached are Consultation with chief form, land acquisition form and sketch plan for further processing.

The application is recommended.

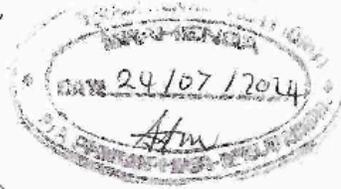

L. Mnyafula.

District Lands Officer.

KAVULI V/G

LAND AGREEMENT FORM

Name(s) of Land Owner(s)	MBULUNJI COMMUNITY SKILLS DEVELOPMENT CENTRE				
Location of Land:	Village: <u>KAVULI</u>				
	T/A: <u>MWAHENGGA</u>				
	District: <u>RUMPHI</u>				
Land Tenure System (Please tick):	Leasehold	Public	Customary	Freehold	other
			<input checked="" type="checkbox"/>		
Land Holding Size (acres):	<u>4.128 HA</u>				
Confirmation of Land Ownership	I certify that this land legally or traditionally belongs to the following:				
	1. MBULUNJI COMMUNITY SKILLS DEVELOPMENT CENTRE				
	Of Village				
	T/A <u>MWAHENGGA</u>				
	District <u>RUMPHI</u>				
	VDC Chairperson:				
	Name <u>Joseph Nyirungu</u>				
	Signature <u>J. Nyirungu</u> Date <u>24/07/2024</u>				
	Village Headman:				
	Name <u>JOSEPH MHAHENGGA</u>				
Signature <u>Joseph Mhahenga</u> Date					
Contribution Type (Please tick):	Voluntary without compensation				
Period of Use:	Indefinite		Number of Years		



DISTRICT COUNCIL
RUMPHI DISTRICT
5 12 3 JUN
[Signature]

MIRACLE

Phone No: 01312944
Fax No: 01312579



REGIONAL COMMISSIONER FOR LANDS (N)
P.O. Box 492
Mzuzu
Malawi

Our Ref. No: NR/KA/BWB/16/58

Your Ref No:

17th January, 2017

THE SOCIETY OF MARY (MARIANISTS) LIMITED,
P. O. Box 99,
Karonga.

Copy: The District Commissioner,
P. O. Box 35,
Karonga.

Dear Sir,

**OFFER OF A LEASE OF 5.04 HECTARES OF PUBLIC LAND KNOWN AS PLOT NO. TN/BWB/113 AT
BWIBA AREA AT KARONGA TOWNSHIP IN KARONGA DISTRICT.**

1. Am pleased to inform you that your application for a lease of the above land has been approved by the Minister of the Malawi Government Responsible for Land Matters.
2. Accordingly, you are offered a lease of the property subject to the provisions of the Land Act and the Regulations made thereunder (with such modifications only as the Minister may deem necessary) and to the following conditions:
 - (a) **Duration** : 99 years from 1st January, 2017.
 - (b) **Rent** : **K37, 800.00** a year payable on the first day of July in every year subject to adjustment (either upwards or down-wards) by reference to the area appearing in the Site Plan and later by reference to the area appearing in Deed Plan and subject also to revision upon the Minister introducing a new scale of rent for this type of property.
 - (c) **Permitted use** : Institutional Purposes
Sum to be spent on development : K26 000,000.00
 - (e) **Date by which development to be completed** : 28th February, 2019
3. The lease will be prepared and you will be allowed into possession when I have received from you the sum of **K34, 470.00** in payment of the fees and duties set out in the attached statement.
4. The lease will also be subject to the provisions of the Land Act (Cap 57: 01) and the subsidiary legislation, in particular the Land Act regulation made under Section 39 of the said Act which lists down the covenants to be implied in every lease.
5. This offer will lapse, if not accepted and all fees and duties paid within **60 days** of the date hereof.

Yours faithfully,

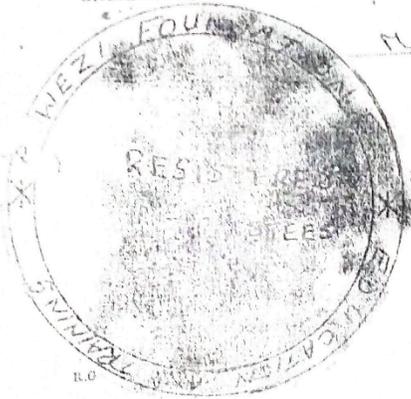
For: **THE COMMISSIONER FOR LANDS FOR AND ON BEHALF
OF THE MINISTER OF THE MALAWI GOVERNMENT
RESPONSIBLE FOR LAND MATTERS.**

THE TRUSTEES INCORPORATION RULES
CERTIFICATE OF INCORPORATION

I HEREBY CERTIFY that THE REGISTERED TRUSTEES OF PHVEZI FOUNDATION FOR
EDUCATION AND TRAINING

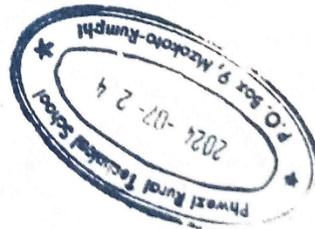
is this day incorporated under the provisions of the Trustee Incorporation Act and that the device affixed hereto of the common seal is approved.

Given under my hand at Sanjilka Palace this 24 day of
March nineteen hundred and eighty five



[Handwritten Signature]

President





Region
District
Locality
Map No. CR 500

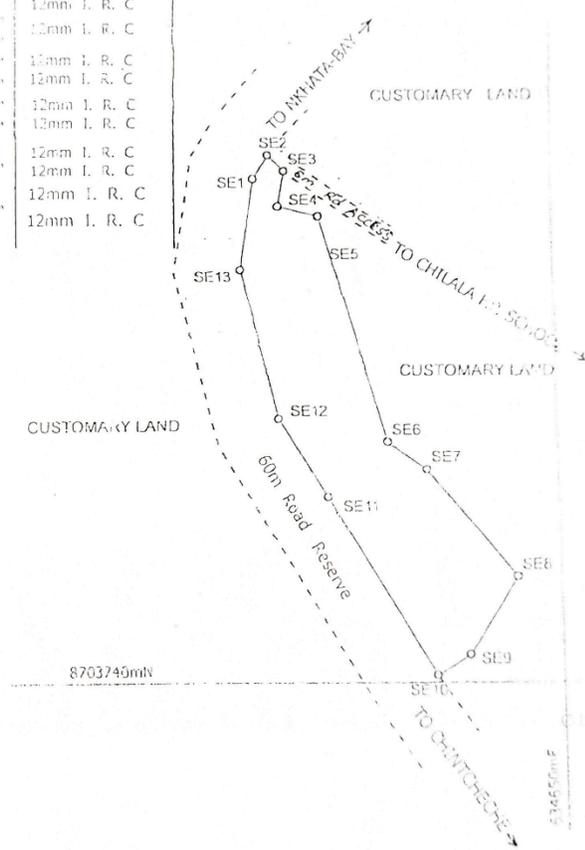
MALAWI
DEED PLAN
No. 120/2024
SCALE 1:5000

Original Plan No. SD 28003
of LOT 1
Surveyed NOVEMBER 2023
by K.S. KHULARA

SIDES AND BEARINGS

NO.	Distance	Bearing	Beacon Description
1	122.00m	31° 45' 00"	12mm I. R. C
2	80.20m	135° 00' 00"	12mm I. R. C
3	38.10m	150° 37' 10"	12mm I. R. C
4	38.10m	173° 40' 20"	12mm I. R. C
5	30.40m	163° 41' 10"	12mm I. R. C
6	42.40m	124° 26' 20"	12mm I. R. C
7	122.00m	145° 30' 10"	12mm I. R. C
8	80.20m	213° 10' 00"	12mm I. R. C
9	34.10m	233° 10' 00"	12mm I. R. C
10	181.80m	328° 29' 40"	12mm I. R. C
11	81.10m	328° 4' 10"	12mm I. R. C
12	181.10m	345° 51' 50"	12mm I. R. C
13	34.10m	6° 46' 10"	12mm I. R. C

COORDINATES (U.T.M.)
E N
634381.08 8704136.92



SE1-SE2-SE3-SE4-SE5-SE6-SE7-SE8-SE9-SE10-SE11-SE12-SE13
 The above figure marked 3797 Hectares of land
 designed and represents 3797
 by E.B. CHITETE I certify that this deed plan conforms with the Original Plan
 No. SD 28003 approved by the Surveyor General
 and that numerical data shown above are mutually consistent

Witnessed by S. Siyaya

[Signature]
Surveyor General



Proposed ablution block



Proposed birck laying block



Proposed ICT block



Proposed plumbing block



Proposed administration block



Proposed capenrty and joinery block



Proposed electrical installation block, fabrication and welding block,



Proposed kitchen and dining block



Proposed motor cycle mechanics blocks



Proposed renewable energy block and proposed solar Photovoltaic block

Annex 9 Screening Forms

A9.1 Andiamo Technical Collage Screening Form



Government of the Republic of Malawi
Ministry of Natural Resources, Energy and Mining
ENVIRONMENTAL AND SOCIAL SCREENING FORM

GUIDELINES FOR THE EVALUATION

1. The evaluator to undertake the assignment after adequate knowledge of baseline information of the area.
2. The evaluator to undertake the assignment after adequate knowledge of proposed project activities in the area.
3. The evaluator to undertake the assignment after prior briefing/training of the exercise.
4. The form to be completed by consensus of at least three people.

An Diamo Technical College

Project Name Skills For a vibrant Economy (SAFE) - Andiamo TC	Estimated Cost (MK) 195,971,026.07
District and Traditional Authority USANKALA, Vt Chauluka	Funding Agency
Project Objectives Increase enrollment of girls in TERETA programs	Proposed Main Project Activities Solar Voltaics, Plumbing workshops and girls hostel
Name, Signature & Designation of Evaluator(s): 1. C. Semberu 2. Linda kaloloveya 3. Peter Yereyani 4. Christopher Nawata 5. James Ndau	Date of Field Appraisal 22/04/2024 26/07/2024

	SCOPE AND FOCUS OF SCREENING	METHODOLOGY OF SCREENING					PROPOSED MITIGATION MEASURES
		Appraisal of Impacts		Significance of the Impacts			
		Yes	No	Low	Medium	High	
1.0	SCREENING CRITERIA FOR PROPOSED SITE FOR THE PROJECT						
	Is the project site within and/or will it affect the following environmentally sensitive areas?						
1.1	National parks and game reserves		✓				
1.2	Wetlands		✓				
1.3	Productive traditional agricultural/grazing lands		✓				
1.4	Areas with rare or endangered flora or fauna		✓				
1.5	Areas with outstanding scenery/tourist site		✓				
1.6	Within steep slopes/mountains		✓				
1.7	Dry tropical forests e.g Brachystegia species		✓				
1.8	Along lakes, along beaches/riverines		✓				
1.9	Within prime groundwater recharge area (characterised by high infiltration)		✓				
1.10	Within prime surface runoff water		✓				
1.11	Near potable drinking water sources		✓				



Government of the Republic of Malawi
Ministry of Natural Resources, Energy and Mining
ENVIRONMENTAL AND SOCIAL SCREENING FORM

GUIDELINES FOR THE EVALUATION

1. The evaluator to undertake the assignment after adequate knowledge of baseline information of the area.
2. The evaluator to undertake the assignment after adequate knowledge of proposed project activities in the area.
3. The evaluator to undertake the assignment after prior briefing/training of the exercise.
4. The form to be completed by consensus of at least three people.

Project Name SKILL For a vibrant Economy (SAFE) - Andiyamo Technical College		Estimated Cost (MK) 195,971,026.07
District and Traditional Authority Balaka USAMALA, Vt Chauluka		Funding Agency
Project Objectives Increase enrollment of girls in TVETA programs		Proposed Main Project Activities Solar Votaid, Plumbing workshops and girls hostel
Name, Signature & Designation of Evaluator(s): 1. C. Sembur 2. Linda Kalaloveya 3. Peter Yeretani 4. Christopher Nawata 5. James Ndau		Date of Field Appraisal 22/04/2024 26/07/2024

	SCOPE AND FOCUS OF SCREENING	METHODOLOGY OF SCREENING					PROPOSED MITIGATION MEASURES
		Appraisal of Impacts		Significance of the Impacts			
		Yes	No	Low	Medium	High	
1.0	SCREENING CRITERIA FOR PROPOSED SITE FOR THE PROJECT						
	Is the project site within and/or will it affect the following environmentally sensitive areas?						
1.1	National parks and game reserves		✓				
1.2	Wetlands		✓				
1.3	Productive traditional agricultural/grazing lands		✓				
1.4	Areas with rare or endangered flora or fauna		✓				
1.5	Areas with outstanding scenery/tourist site		✓				
1.6	Within steep slopes/mountains		✓				
1.7	Dry tropical forests e.g Brachystegia species		✓				
1.8	Along lakes, along beaches/riverines		✓				
1.9	Within prime groundwater recharge area (characterised by high infiltration)		✓				
1.10	Within prime surface runoff water		✓				
1.11	Near potable drinking water sources		✓				

3.14	Increase in cases of theft and crime	✓	✓				
3.15	Risk of child labour	✓					
3.16	Increase in school drop out	✓					
3.17	Lack of access to public facility by persons with disability	✓		✓			Design to include ramp
3.18	Increase in cases of gender-based violence	✓		✓			Develop & implement code of conduct
3.19	Increased competition for public social services	✓		✓			formal agreement on bills & contractor
3.20	Increased prices of local commodities		✓				
3.21	Risk of modern-day slavery and forced labour		✓				
3.21	Increased cases of COVID 19		✓				
4.0	SCREENING CRITERIA FOR POSITIVE SOCIAL AND ECONOMIC IMPACTS	Yes	No	Low	Medium	High	PROPOSED ENHANCEMENT MEASURES
	Will the implementation and operation of the project activities within the selected site generate the following positive socio-economic impacts?						
4.1	Creation of job opportunities	✓		✓			Employ local labourers
4.2	Promotion of local skills and knowledge	✓		✓			Encourage student Internship
4.3	Asset creation	✓		✓			Timely maintenance
4.4	Improved transportation		✓				Sensitive work on VLS
4.5	Improved standards of living/social status	✓					
4.6	Improved food security		✓				
4.7	Creation of business opportunities	✓					Create market space
4.8	Increased income at individual/household level	✓					and signage on VLS
4.9	Improved water supply and sanitation services		✓				

OVERALL EVALUATION OF THE SCREENING PROCESS ON THE SITE AND PROJECT ACTIVITY

The result of the screening process would be either the proposed project would be permitted to proceed on the site or the proposed project needs further compliance with EIA requirements. The basis of these options is listed in the table below:

The Proposed Project Activity Can Be Exempted from Further Compliance with ESIA Requirements on the Following Observations:	The Proposed Project Activity Needs Further Compliance with ESIA Requirements on the Following Observations:
<ul style="list-style-type: none"> Field appraisals indicate that the site of the project will not be within environmentally sensitive areas, protected areas No families will be displaced from the site Identified impacts are minor, marginal and of little significance 	<ul style="list-style-type: none"> Field appraisals indicate that the project site is within environmentally sensitive areas, protected areas Cause adverse socio-economic impacts Significant number of people, families will be displaced from the site
<ul style="list-style-type: none"> Mitigation measures for the identified impacts are understood and practiced in the area The stakeholders have adequate practical experiences in natural resource conservation and management 	<ul style="list-style-type: none"> Some of the predicted impacts will be long term, complicated, extensive Appropriate mitigation measures for some of the predicted impacts are not well known in the area

Completion by District Environmental Officer	
Is This Project Likely To Need An ESIA?	YES / NO
Is this Project Likely to require a RAP/ARAP	YES / NO
List A/B Paragraph Numbers	
Date Exempted	
Date Forwarded to EAD Head Office	
Name & Signature of EDO	<i>[Signature]</i>

Completion by Director of Environmental Affairs	
Date Received from District Council	
Date Reviewed	
Date of Submission of Project Brief	
Date of Submission of ESIA Reports	
Date of Approval /Rejection	

NOTES:

Name: Christopher Nawata
 Signature: *[Signature]*
 Position: Director of Planning and Development

THE DISTRICT COMMISSIONER
 BALAKA DISTRICT COUNCIL

26 JUL 2024

PRIVATE BAG 1
 BALAKA

A9.2 Kasama Community Technical College



Government of the Republic of Malawi
 Ministry of Natural Resources, Energy and Mining
ENVIRONMENTAL AND SOCIAL SCREENING FORM

GUIDELINES FOR THE EVALUATION

- The evaluator to undertake the assignment after adequate knowledge of baseline information of the area
- The evaluator to undertake the assignment after adequate knowledge of proposed project activities in the area
- The evaluator to undertake the assignment after prior briefing/training of the evaluator
- The form to be completed by consensus of at least three people

Project Name: KASAMA COMMUNITY TECHNICAL COLLEGE	Estimated Cost (Mk) 691,852,150.44
District and Traditional Authority: CHITIPA TA MUMAMBA	Funding Agency: WORLD BANK
Project Objectives: To increase students enrollment	Proposed Main Project Activities: CONSTRUCTION OF 2 hostels, solar powered kitchen and dining hall, green house and workshop
Name, Signature & Designation of Evaluator(s): 1. Chumbo Mbera EDO, Sr 2. Kondwani N. Zindano Kapfwa 3. MASANTU KALUA TELITALE	Date of Field Appraisal: 24-04-2024

SCOPE AND FOCUS OF SCREENING	METHODOLOGY OF SCREENING					PROPOSED MITIGATION MEASURES
	Appraisal of impacts		Significance of the impacts			
	Yes	No	Low	Medium	High	
1.0 SCREENING CRITERIA FOR PROPOSED SITE FOR THE PROJECT						
Is the project site within and/or will it affect the following environmentally sensitive areas?						
1.1 National parks and game reserves		✓				
1.2 Wetlands		✓				
1.3 Productive traditional agricultural/grazing lands		✓				
1.4 Areas with rare or endangered flora or fauna		✓				
1.5 Areas with outstanding scenery/land site		✓				
1.6 Within steep slopes/mountains		✓				
1.7 Dry tropical forests e.g Brachystegia species		✓				
1.8 Along lakes, along beaches/riverines		✓				
1.9 Within prime groundwater recharge area (characterised by high infiltration)		✓				
1.10 Within prime surface runoff water		✓				
1.11 Near potable drinking water sources	✓		✓			

Adherence to set standard distance of borehole from pit latrine



KASAMA COMMUNITY TECHNICAL COLLEGE
 25 JUL 2024
 P.O. BOX 44 CHITIPA

SCOPE AND FOCUS OF SCREENING	METHODOLOGY OF SCREENING					PROPOSED MITIGATION MEASURES
	Appraisal of Impacts		Significance of the Impacts			
	Yes	No	Low	Medium	High	
2.0 SCREENING CRITERIA FOR ENVIRONMENTAL IMPACTS DURING IMPLEMENTATION AND OPERATION						
Will the implementation and operation of the project activities within the selected site generate the following impacts?						
2.1 Loss of trees/vegetation	✓		✓	✓		Clearing of vegetation should be limited to construct site only Land Survey
2.2 Soil erosion	✓		✓			
2.3 Damage of wildlife species and habitat	✓		✓			
2.4 Increased exposure to agro-chemical pollutants	✓	✓	✓			Follow instruction for use Construction of healthy Traps surrounding of water races
2.5 Chemical pollution	✓		✓			
2.6 Nuisance - smell, dust or noise	✓		✓			
2.7 Reduced water quality	✓	✓	✓			
2.8 Increase in costs of water treatment	✓	✓	✓			
2.9 Soil contamination	✓		✓			
2.10 Risk of injuries to workers and communities	✓			✓		Sign of PPE, First Aid More health and safety training
2.11 Siltation of watercourses, dams	✓	✓	✓			
2.12 Loss of soil fertility	✓	✓	✓			Awareness, Screening of area
2.13 Increasing incidences of diseases	✓		✓			
2.14 Reduced flow and availability of water for users	✓	✓	✓			
2.15 Long term depletion of water resources	✓	✓	✓			
2.16 Increased incidence of flooding	✓	✓	✓			
2.17 Salinisation or alkalinisation of soils	✓	✓	✓			Organic farming
2.18 Changes in migration patterns of animals	✓	✓	✓			Screening of construction materials on input Report storage plant Have waste pit pk Have proper camp Get necessary permit from council
2.19 Introduce alien plants and animals in the area	✓		✓			
2.20 Increased incidences of plant and animal diseases	✓		✓			
2.21 Poor waste disposal	✓		✓		✓	
2.22 Increased cases of open defecation	✓		✓			
2.23 Disturbance of river banks and/or drainage systems due to sand mining	✓		✓			
2.24 Creation of borrow pits arising from extracting of construction materials	✓		✓			
3.0 SCREENING CRITERIA FOR SOCIAL AND ECONOMIC IMPACTS	Yes	No	Low	Medium	High	PROPOSED MITIGATION MEASURES
Will the implementation and operation of the project activities within the selected site generate the following socio-economic costs/impacts?						
3.1 Loss of land for human settlement, farming, grazing			✓			
3.2 Loss of property - houses, agricultural produce, etc.	✓	✓	✓			Relocation of structure Removal of temporary residence
3.3 Loss of cultural sites - graveyards, monuments, etc.	✓		✓			Sensitive, take of care
3.4 Interference in marriages for local people	✓		✓			
3.5 Loss of income generating capacity	✓		✓			
3.6 Spread of HIV and AIDS, STDs	✓		✓			Commitment to reduce risk other ICR Practise abstinence or water use use of local workers
3.7 Changes in human settlement patterns of villages	✓		✓			
3.8 Conflicts over use of natural resources such as water and forest resources	✓		✓			
3.9 Population influx	✓		✓			
3.10 Conflicts over land use and ownership	✓		✓			
3.11 Disruption of important pathways, roads	✓		✓			
3.12 Loss of access to public facilities e.g. classrooms, staff house etc.	✓		✓			
3.13 Increase in cases of theft and crime	✓		✓			Employ Security Screening of workers Sensitisation of the clients and have code of conduct for workers
3.14 Risk of child labour	✓		✓			
3.15 Increase in school drop-out	✓		✓			

3.16	Lack of access to public facility by persons with disability		✓				
3.17	Increase in cases of gender based violence	✓					
3.18	Increased competition for public social services	✓		✓			
3.19	Increased prices of local commodities	✓		✓			
4.0	SCREENING CRITERIA FOR POSITIVE SOCIAL AND ECONOMIC IMPACTS	Yes	No	Low	Medium	High	PROPOSED ENHANCEMENT MEASURES
	Will the implementation and operation of the project activities within the selected site generate the following positive socio-economic impacts?						
4.1	Creation of job opportunities	✓			✓		
4.2	Promotion of local skills and knowledge	✓			✓		
4.3	Asset creation	✓			✓		
4.4	Improved transportation	✓			✓		
4.5	Improved standards of living/social status	✓			✓		
4.6	Improved food security	✓			✓		
4.7	Creation of business opportunities	✓			✓		
4.8	Increased income at individual/household level	✓			✓		

Review & have cards of impact, to study conduct.

Review to call about gender balance & have quality also Contractor to apply skill Meet minimum wage Contractor to buy local Pay workers in the

OVERALL EVALUATION OF THE SCREENING PROCESS ON THE SITE AND PROJECT ACTIVITY

The result of the screening process would be either the proposed project would be permitted to proceed on the site or the proposed project needs further compliance with EIA requirements. The basis of these options is listed in the table below:

<p>The Proposed Project Activity Can Be Exempted from Further Compliance with EIA Requirements on the Following Observations:</p> <ul style="list-style-type: none"> Field appraisals indicate that the site of the project will not be within environmentally sensitive areas, protected areas No families will be displaced from the site Identified impacts are minor, marginal and of little significance Mitigation measures for the identified impacts are understood and practiced in the area The stakeholders have adequate practical experiences in natural resource conservation and management 	<p>The Proposed Project Activity Needs Further Compliance with EIA Requirements on the Following Observations:</p> <ul style="list-style-type: none"> Field appraisals indicate that the project site is within environmentally sensitive areas, protected areas Cause adverse socio-economic impacts Significant number of people, families will be displaced from the site Some of the predicted impacts will be long term, complicated, extensive Appropriate mitigation measures for some of the predicted impacts are not well known in the area
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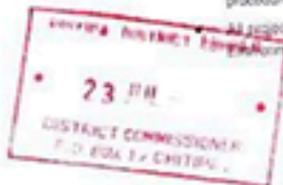
Completion by District Environmental Officer	
Is This Project Likely To Need An EIA?	YES / NO
Is this Project Likely to require a RAP/ARAP	YES / NO
List A/B Paragraph Numbers	
Date Exempted	25/04/24
Date Forwarded to EAD Head Office	06/05/24
Name & Signature of EDO	K. Mboye

Completion by Director of Environmental Affairs	
Date Received from District Council	
Date Reviewed	
Date of Submission of Project Brief	
Date of Submission of EIA Reports	
Date of Approval /Rejection	

NOTES:

- Once the Environmental and Social Screening Form is completed, it is analysed by experts from the District Environmental Sub-Committee who will classify it into the appropriate category based on predetermined criteria and the information provided in the Form.
- All projects proponents exempted from further impact assessment must be informed to proceed with other necessary procedures.

All projects recommended for further impact assessment will have to follow procedures outlined in Section 24 and 25 of the Environmental Management Act, and the Malawi Government's Guidelines for Environmental Impact Assessment.



A9.3 Mbulunji Community Skills Development Centre



Government of the Republic of Malawi
 Ministry of Natural Resources, Energy and Mining

MBULUNJI COMMUNITY SKILLS DEVELOPMENT CENTRE
 24 Jul 2024
 P.A. PHWAMBEHONGA
 POST OFFICE RUMPHI

ENVIRONMENTAL AND SOCIAL SCREENING FORM

GUIDELINES FOR THE EVALUATION

1. The evaluator to undertake the assignment after adequate knowledge of baseline information of the area.
2. The evaluator to undertake the assignment after adequate knowledge of proposed project activities in the area.
3. The evaluator to undertake the assignment after prior briefing/training of the exercise.
4. The form to be completed by consensus of at least three people.

Project Name Mbulunji Technical College SAVE Project	Estimated Cost (MK) 750,000,000.00
District and Traditional Authority Rumphii District-T/A Mwachenga	Funding Agency World Bank
Project Objectives <ul style="list-style-type: none"> To provide skills development support through programmes offered in selected tertiary education institutions spanning higher education and training (TEVET), with special attention on demand-driven approaches to boost labour force skills, women's empowerment, digital skills and technology, institutional strengthening and learning continuity 	Proposed Main Project Activities <ul style="list-style-type: none"> Construction of administration office block Construction of classroom block Construction of girls' hostel Construction of workshop Procurement of equipment
Name, Signature & Designation of Evaluator(s): 1. Gill Nyirenda, EDO, 0998991044 / 0888392631 2..... 3.....	Date of Field Appraisal 26/04/2024

MBULUNJI COMMUNITY SKILLS DEVELOPMENT CENTRE
 24 Jul 2024
 P.A. PHWAMBEHONGA
 POST OFFICE RUMPHI

	SCOPE AND FOCUS OF SCREENING	METHODOLOGY OF SCREENING					PROPOSED MITIGATION MEASURES
		Appraisal of Impacts		Significance of the Impacts			
		Yes	No	Low	Medium	High	
1.0	SCREENING CRITERIA FOR PROPOSED SITE FOR THE PROJECT						
	Is the project site within and/or will it affect the following environmentally sensitive areas?		✓				
1.1	National parks and game reserves		×				
1.2	Wetlands		×				
1.3	Productive traditional agricultural/grazing lands		×				
1.4	Areas with rare or endangered flora or fauna		×				
1.5	Areas with outstanding scenery/tourist site		×				
1.6	Within steep slopes/mountains		×				
1.7	Dry tropical forests e.g Brachystegia species		×				
1.8	Along lakes, along beaches/riverines		×				
1.9	Within prime groundwater recharge area (characterised by high infiltration)		×				
1.10	Within prime surface runoff water		×				
1.11	Near potable drinking water sources		×				

	SCOPE AND FOCUS OF SCREENING	METHODOLOGY OF SCREENING					PROPOSED MITIGATION MEASURES
		Appraisal of Impacts		Significance of the Impacts			
		Yes	No	Low	Medium	High	
2.0	SCREENING CRITERIA FOR ENVIRONMENTAL IMPACTS DURING IMPLEMENTATION AND OPERATION						
	Will the implementation and operation of the project activities within the selected site generate the following impacts?						
2.1	Loss of trees/vegetation	✓		✓			Plant 200 trees
2.2	Soil erosion	✓		✓			Plant vetiver grass
2.3	Damage of wildlife species and habitat		×				
2.4	Increased exposure to agro-chemical pollutants		×				
2.5	Chemical pollution	✓		✓			Proper use and

2

MBULUNI COMMUNITY
DEVELOPMENT CENTRE

24 Jul. 2024

							disposal of cans or bottles
2.6	Nuisance – smell, dust or noise	√		√			Watering the grounds in dry Season, workers putting on masks and regular services of machines
2.7	Reduced water quality		×				
2.8	Increase in costs of water treatment		×				
2.9	Soil contamination		×				
2.10	Risk of injuries to workers and communities	√		√			Provision of PPEs/ site hoarding
2.11	Siltation of watercourses, dams		×				
2.12	Loss of soil fertility		×				
2.13	Increasing incidences of diseases	√		√			Follow preventive measures
2.14	Reduced flow and availability of water for users		×				
2.15	Long term depletion of water resources		×				
2.16	Increased incidence of flooding		×				
2.17	Salinisation or alkalisation of soils		×				
2.18	Changes in migration patterns of animals		×				
2.19	Introduce alien plants and animals in the area	√	-	√			Clean equipment before transporting to the site
2.20	Increased incidences of plant and animal diseases		×				
2.21	Poor waste disposal	√		√			Dig rubbish pits
2.22	Increased cases of open defecation	√		√			Construct toilets or identify nearby toilets
2.23	Disturbalizations of river banks and or drainage systems due to sand mining		×				
2.24	Creation of borrow pits arising from extracting of construction materials	√		√			Rehabilitate borrow pits/ Obtain sand mining permits from the council
3.0	SCREENING CRITERIA FOR SOCIAL AND ECONOMIC IMPACTS	Yes	No	Low	Medium	High	PROPOSED MITIGATION MEASURES
	Will the implementation and operation of the project activities within the selected site generate the following socio-economic costs/impacts?						
3.1	Loss of land for human settlement, farming, grazing		×				
3.2	Loss of property – houses, agricultural produce, etc.		×				
3.3	Loss of cultural sites – graveyards, monuments, etc.		×				

3.4	Interference in marriages for local people	√		√			Code of conduct for the contractor, and awareness
3.5	Loss of income generating capacity		×				
3.6	Spread of HIV and AIDS, STDs	√		√			Sensitization and distribute condoms
3.7	Changes in human settlement patterns of villages		×				
3.8	Conflicts over use of natural resources such as water and forest resources		×				
3.9	Population influx		×				
3.10	Conflicts over land use and ownership		×				
3.11	Disruption of important pathways, roads		×				
3.12	Loss of access to public facilities e.g. classrooms, staff house, etc.		×				
3.13	Increase in cases of theft and crime	√		√			Community policing
3.14	Risk of child labour		×				
3.15	Increase in school drop out	√		√			Code of conduct/ awareness
3.16	Lack of access to public facility by persons with disability		×				
3.17	Increase in cases of gender-based violence	√		√			Sensitization
3.18	Increased competition for public social services	√		√			Employment of locals/ use of own water source
3.19	Increased prices of local commodities	√		√			Employ locals
4.0	SCREENING CRITERIA FOR POSITIVE SOCIAL AND ECONOMIC IMPACTS	Yes	No	Low	Medium	High	PROPOSED ENHANCEMENT MEASURES
	Will the implementation and operation of the project activities within the selected site generate the following positive socio-economic impacts?						
4.1	Creation of job opportunities	√				√	Employ locals/ Advertisement
4.2	Promotion of local skills and knowledge	√				√	Train local artisans
4.3	Asset creation	√				√	Construct durable assets
4.4	Improved transportation	√				√	Road maintenance
4.5	Improved standards of living/social status	√				√	Pay above minimum wages/ promote saving culture through VSL
4.6	Improved food security	√				√	Pay above minimum wages
4.7	Creation of business opportunities	√			√		Buy from local businesses

4.8	Increased income at individual/household level	√			√	Pay above minimum wage
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OVERALL EVALUATION OF THE SCREENING PROCESS ON THE SITE AND PROJECT ACTIVITY

The result of the screening process would be either the proposed project would be permitted to proceed on the site or the proposed project needs further compliance with EIA requirements. The basis of these options is listed in the table below:

The Proposed Project Activity Can Be Exempted from Further Compliance with EIA Requirements on the Following Observations:	The Proposed Project Activity Needs Further Compliance with EIA Requirements on the Following Observations:
<ul style="list-style-type: none"> Field appraisals indicate that the site of the project will not be within environmentally sensitive areas, protected areas 	<ul style="list-style-type: none"> Field appraisals indicate that the project site is within environmentally sensitive areas, protected areas
<ul style="list-style-type: none"> No families will be displaced from the site 	<ul style="list-style-type: none"> Cause adverse socio-economic impacts
<ul style="list-style-type: none"> Identified impacts are minor, marginal and of little significance 	<ul style="list-style-type: none"> Significant number of people, families will be displaced from the site
<ul style="list-style-type: none"> Mitigation measures for the identified impacts are understood and practiced in the area 	<ul style="list-style-type: none"> Some of the predicted impacts will be long term, complicated, extensive
<ul style="list-style-type: none"> The stakeholders have adequate practical experiences in natural resource conservation and management 	<ul style="list-style-type: none"> Appropriate mitigation measures for some of the predicted impacts are not well known in the area

Completion by District Environmental Officer	
Is This Project Likely to Need An EIA?	NO
Is this Project Likely to require a RAP/RAP	NO
List A/B Paragraph Numbers	
Date Exempted	
Date Forwarded to EAD Head Office	08/05/2024
Name & Signature of EDQ	<i>Giff Nyiranda</i>

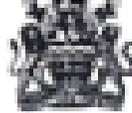
Completion by Director of Environmental Affairs	
Date Received from District Council	—
Date Reviewed	—
Date of Submission of Project Brief	
Date of Submission of EIA Reports	
Date of Approval /Rejection	27 JUL 2024
Name & Signature	<i>FRANK MUGNE</i>

DPD

NOTES:

- Once the Environmental and Social Screening Form is completed, it is analysed by experts from the District Environmental Sub-Committee who will classify it into the appropriate category based on predetermined criteria and the information provided in the Form.

A9.4 Phwezi technical college



Government of the Republic of Malawi

Ministry of Natural Resources, Energy and Mining

ENVIRONMENTAL AND SOCIAL SCREENING FORM

GUIDELINES FOR THE EVALUATION

1. The evaluator to undertake the assignment after adequate knowledge of baseline information of the area.
2. The evaluator to undertake the assignment after adequate knowledge of proposed project activities in the area.
3. The evaluator to undertake the assignment after prior briefing/training of the exercise.
4. The form to be completed by consensus of at least three people.

Project Name Phwezi Technical College SAVE Project	Estimated Cost (MK) 602,400,000.00
Division and Traditional Authority Rumphi District-T/A Mwanankhankira	Funding Agency World Bank
Project Objectives <ul style="list-style-type: none"> • To provide skills development support through programmes offered in selected tertiary education institutions spanning higher education and training (TEVET), with special attention on demand-driven approaches to boost labour force skills, women's empowerment, digital skills and technology, institutional strengthening and learning continuity 	Proposed Main Project Activities <ul style="list-style-type: none"> • Construction of green houses • Construction of girls' hostel • Procurement of equipment
Name, Signature & Designation of Evaluator(s): 1. Gift Nyirenda, EDO, 0994994044 / 888390630 2..... 3.....	Date of Field Appraisal 26/04/2024

SCOPE AND FOCUS OF SCREENING	METHODOLOGY OF SCREENING					PROPOSED MITIGATION MEASURES
	Appraisal of Impacts		Significance of the Impacts			
	Yes	No	Low	Medium	High	



1.0	SCREENING CRITERIA FOR PROPOSED SITE FOR THE PROJECT					
	Is the project site within and/or will it affect the following environmentally sensitive areas?					
1.1	National parks and game reserves	*				
1.2	Wetlands	*				
1.3	Productive traditional agricultural/grazing lands	*				
1.4	Areas with rare or endangered flora or fauna	*				
1.5	Areas with outstanding scenery/tourist site	*				
1.6	Within steep slopes/mountains	*				
1.7	Dry tropical forests e.g. <i>Brachystegia</i> species	*				
1.8	Along lakes, along beaches/riverines	*				
1.9	Within prime groundwater recharge area (characterised by high infiltration)	*				
1.10	Within prime surface runoff water	*				
1.11	Near potable drinking water sources	*				

	SCOPE AND FOCUS OF SCREENING	METHODOLOGY OF SCREENING					PROPOSED MITIGATION MEASURES
		Appraisal of Impacts		Significance of the Impacts			
		Yes	No	Low	Medium	High	
2.0	SCREENING CRITERIA FOR ENVIRONMENTAL IMPACTS DURING IMPLEMENTATION AND OPERATION						
	Will the implementation and operation of the project activities within the selected site generate the following impacts?						
2.1	Loss of trees/vegetation	√		√			Plant 200 trees
2.2	Soil erosion	√		√			Plant vetiver grass
2.3	Damage of wildlife species and habitat		*				
2.4	Increased exposure to agro-chemical pollutants		*				
2.5	Chemical pollution	√		√			Proper use and disposal of cans or



2.4	Nuisance – smell, dust or noise	√		√			bottles Watering the grounds in dry Season, workers putting on masks and regular services of machines
2.7	Reduced water quality						
2.8	Increase in costs of water treatment						
2.9	Soil contamination						
2.10	Risk of injuries to workers and communities	√		√			Provision of PPEs/ site boarding
2.11	Salinization of watercourses, dams						
2.12	Loss of soil fertility						
2.13	Increasing incidences of diseases	√		√			Follow preventive measures
2.14	Reduced flow and availability of water for users						
2.15	Long term depletion of water resources						
2.16	Increased incidence of flooding						
2.17	Salinization or alkalinization of soils						
2.18	Changes in migration patterns of animals						
2.19	Introduce alien plants and animals in the area	√		√			Clean equipment before transporting to the site
2.20	Increased incidences of plant and animal diseases						
2.21	Poor waste disposal	√		√			Dig rubbish pits
2.22	Increased cases of open defecation	√		√			Construct toilets or identify nearby toilets
2.23	Disturbance of river banks and or drainage systems due to sand mining						
2.24	Creation of borrow pits arising from extracting of construction materials	√		√			Rehabilitate borrow pits/ Obtain sand mining permits from the council
3.0	SCREENING CRITERIA FOR SOCIAL AND ECONOMIC IMPACTS	Yes	No	Low	Medium	High	PROPOSED MITIGATION MEASURES
	Will the implementation and operation of the project activities within the selected site generate the following socio-economic costs/impacts?						
3.1	Loss of land for human settlement, farming, grazing						
3.2	Loss of property – houses, agricultural produce, etc.						
3.3	Loss of cultural sites – graveyards, monuments, etc.						
3.4	Interference in marriages for local	√		√			Code of conduct for



	people						the contractor, and awareness
3.5	Loss of income generating capacity		*				
3.6	Spread of HIV and AIDS, STDs	√		√			Seritization and distribute condoms
3.7	Changes in human settlement patterns of villages		*				
3.8	Conflicts over use of natural resources such as water and forest resources		*				
3.9	Population influx		*				
3.10	Conflicts over land use and ownership		*				
3.11	Disruption of important pathways, roads		*				
3.12	Loss of access to public facilities e.g. classrooms, staff house, etc.		*				
3.13	Increase in cases of theft and crime	√		√			Community policing
3.14	Risk of child labour		*				
3.15	Increase in school drop out	√		√			Code of conduct/ awareness
3.16	Lack of access to public facility by persons with disability		*				
3.17	Increase in cases of gender-based violence	√		√			Seritization
3.18	Increased competition for public social services	√		√			Employment of locals/ use of own water source
3.19	Increased prices of local commodities	√		√			Employ locals
4.0	SCREENING CRITERIA FOR POSITIVE SOCIAL AND ECONOMIC IMPACTS	Yes	No	Low	Medium	High	PROPOSED ENHANCEMENT MEASURES
	Will the implementation and operation of the project activities within the selected site generate the following positive socio-economic impacts?						
4.1	Creation of job opportunities	√				√	Employ locals/ Advertisement
4.2	Promotion of local skills and knowledge	√				√	Train local artisans
4.3	Asset creation	√				√	Construct durable assets
4.4	Improved transportation	√				√	Road maintenance
4.5	Improved standards of living/social status	√				√	Pay above minimum wages/ promote saving culture through VSL
4.6	Improved food security	√				√	Pay above minimum wages
4.7	Creation of business opportunities	√			√		Buy from local businesses
4.8	Increased income at	√				√	Pay above minimum



individual/household level						weight
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OVERALL EVALUATION OF THE SCREENING PROCESS ON THE SITE AND PROJECT ACTIVITY

The result of the screening process would be either the proposed project would be permitted to proceed on the site or the proposed project needs further compliance with EIA requirements. The basis of these options is listed in the table below:

The Proposed Project Activity Can Be Exempted from Further Compliance with EIA Requirements on the Following Observations:	The Proposed Project Activity Needs Further Compliance with EIA Requirements on the Following Observations:
<ul style="list-style-type: none"> Field appraisals indicate that the site of the project will not be within environmentally sensitive areas, protected areas No families will be displaced from the site Identified impacts are minor, marginal and of little significance Mitigation measures for the identified impacts are understood and practiced in the area The stakeholders have adequate practical experiences in natural resource conservation and management 	<ul style="list-style-type: none"> Field appraisals indicate that the project site is within environmentally sensitive areas, protected areas Cause adverse socio-economic impacts Significant number of people, families will be displaced from the site Some of the predicted impacts will be long term, complicated, extensive Appropriate mitigation measures for some of the predicted impacts are not well known in the area

Completion by District Environmental Officer	
Is This Project Likely to Need An EIA?	NO
Is this Project Likely to require a RAPIARAP	NO
List A/B Paragraph Numbers	
Date Exempted	
Date Forwarded to EAD Head Office	08/05/2024
Name & Signature of EDO	

Completion by Director of Environmental Affairs	
Date Received from District Council	
Date Reviewed	
Date of Submission of Project Brief	
Date of Submission of EIA Reports	
Date of Approval /Rejection	
Name & Signature of Director	

NOTES:

- Once the Environmental and Social Screening Form is completed, it is analysed by experts from the District Environmental Sub-Committee who will classify it into the appropriate category based on predetermined criteria and the information provided in the Form.
- All projects' proponents exempted from further impact assessment must be informed to proceed with other necessary procedures.



A9.5 SEEI technical college



Government of the Republic of Malawi
Ministry of Natural Resources, Energy and Mining
ENVIRONMENTAL AND SOCIAL SCREENING FORM

GUIDELINES FOR THE EVALUATION

1. The evaluator to undertake the assignment after adequate knowledge of baseline information of the area
2. The evaluator to undertake the assignment after adequate knowledge of proposed project activities in the area
3. The evaluator to undertake the assignment after prior briefing/training of the services
4. The form to be completed by consensus of at least three people.

3. Baburund / Kankwala / Mchinge
+ Dumthira

2. Site Name - if bed room within have completed

Project Name 1. <u>fabrics shop workshop</u>	Estimated Cost (MW) <u>292,000,000</u>
District and Traditional Authority <u>Nkhosha TA Kamukama</u>	Funding Agency <u>SAVE</u>
Project Objectives	Proposed Main Project Activities - <u>fabrics shop workshop</u> - <u>water house</u> - <u>4 bed room house (new)</u> <u>Baburund / Kankwala</u>
Name, Signature & Designation of Evaluator(s) 1. <u>Colin Mchinge</u> 2. <u>FREEDOM NIKUMBA</u> 3. _____	Date of Field Appraisal <u>26/04/24</u> - <u>water Dumthira</u> - <u>Disability lamp</u> - <u>Procurement of 10</u> <u>of solar panel</u> <u>equipment</u>

	SCOPE AND FOCUS OF SCREENING	METHODOLOGY OF SCREENING					PROPOSED MITIGATION MEASURES
		Appraisal of Impacts		Significance of the Impacts			
		Yes	No	Low	Medium	High	
1.0	SCREENING CRITERIA FOR PROPOSED SITE FOR THE PROJECT						
	Is the project site within and/or will it affect the following environmentally sensitive areas?						
1.1	National parks and game reserves		X				
1.2	Wetlands	✓		✓			
1.3	Productive traditional agricultural/grading lands		X				
1.4	Areas with rare or endangered flora or fauna		X				
1.5	Areas with outstanding scenery/land site	✓		✓			
1.6	Within steep slopes/mountains	✓		✓			
1.7	Dry riparian forests e.g. Brachystylax riparian		X				
1.8	Along lakes, along creeks/streams		X				
1.9	Water prone groundwater recharge area (characterised by high infiltration)		X				
1.10	Water prone surface runoff water		X				
1.11	Near possible drinking water sources		X				



SCOPE AND FOCUS OF SCREENING		MEASUREMENT OF IMPACTS					MEASURES
		Appraisal of Impacts		Significance of the Impacts			
		Yes	No	Low	Medium	High	
2.0	SCREENING CRITERIA FOR ENVIRONMENTAL IMPACTS DURING IMPLEMENTATION AND OPERATION						
	Will the implementation and operation of the project activities within the selected site generate the following impacts?						
2.1	Loss of trees/vegetation	✓					Plant more trees
2.2	Soil erosion	✓					Clearing of vegetation lands
2.3	Damage of wildlife species and habitat		✓				Construction of fences
2.4	Increased exposure to agro-chemical pollutants		✓				
2.5	Chemical pollution		✓				
2.6	Nuisance - smell, dust or noise	✓					Sensitisation
2.7	Reduced water quality	✓					
2.8	Increase in costs of water treatment		✓				
2.9	Soil contamination	✓					
2.10	Risk of injuries to workers and communities	✓	✓				Sensitisation on safety
2.11	Siltation of watercourses, dams	✓					
2.12	Loss of soil fertility	✓					
2.13	Increasing incidences of diseases	✓					
2.14	Reduced flow and availability of water for users	✓					
2.15	Long term depletion of water resources	✓					
2.16	Increased incidence of flooding	✓					
2.17	Salinisation or alkalinisation of soils	✓					
2.18	Changes in migration patterns of animals	✓					
2.19	Introduce alien plants and animals in the area		✓				
2.20	Increased incidences of plant and animal diseases	✓					Cleaning the machinery
2.21	Poor waste disposal	✓					
2.22	Increased cases of open defecation	✓					Provide waste management
2.23	Disturbance of river banks and or drainage systems due to sand mining	✓					Provide toilets for the school
2.24	Creation of borrow pits arising from extracting of construction materials	✓					Get permit from the Council
3.0	SCREENING CRITERIA FOR SOCIAL AND ECONOMIC IMPACTS	Yes	No	Low	Medium	High	PROPOSED MITIGATION MEASURES
	Will the implementation and operation of the project activities within the selected site generate the following socio-economic costs/impacts?						
3.1	Loss of land for human settlement, farming, grazing		✓				
3.2	Loss of property - houses, agricultural produce, etc.		✓				
3.3	Loss of cultural sites - graveyards, monuments, etc.		✓				
3.4	Interference in marriages for local people	✓					Sensitisation
3.5	Loss of income generating capacity	✓					
3.6	Spread of HIV and AIDS, STDs	✓					Provide awareness to the local
3.7	Changes in human settlement patterns of villages		✓				Establishing the school from
3.8	Conflicts over use of natural resources such as water and forest resources		✓				Accountability to the school
3.9	Population influx	✓					Sensitisation
3.10	Conflicts over land use and ownership		✓				
3.11	Disruption of important pathways, roads		✓				
3.12	Loss of access to public facilities e.g. classrooms, staff house, etc.		✓				
3.13	Increase in cases of theft and crime	✓					Sensitisation - use security guard
3.14	Risk of child labour	✓					Sensitisation
3.15	Increase in school drop out		✓				

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3.16	Lack of access to public facility by persons with disability		✓						
3.17	Increase in cases of gender based violence	✓							
3.18	Increased competition for public social services		✓						
3.19	Increased prices of local commodities	✓							Sampling local markets
4.0	SCREENING CRITERIA FOR POSITIVE SOCIAL AND ECONOMIC IMPACTS	Yes	No	Low	Medium	High	PROPOSED ENHANCEMENT MEASURES		
	Will the implementation and operation of the project activities within the selected site generate the following positive socio-economic impacts?								
4.1	Creation of job opportunities	✓					Creating local		
4.2	Promotion of local skills and knowledge	✓					the skilled and unskilled workers		
4.3	Asset creation	✓							
4.4	Improved transportation		✓						
4.5	Improved standards of living/social status	✓							
4.6	Improved food security	✓							
4.7	Creation of business opportunities	✓							
4.8	Increased income at individual household level	✓							

OVERALL EVALUATION OF THE SCREENING PROCESS ON THE SITE AND PROJECT ACTIVITY

The result of the screening process would be either the proposed project would be permitted to proceed on the site or the proposed project needs further compliance with EIA requirements. The basis of these options is listed in the table below:

<p>The Proposed Project Activity Can Be Exempted from Further Compliance with EIA Requirements on the Following Observations:</p> <ul style="list-style-type: none"> Field appraisals indicate that the site of the project will not be within environmentally sensitive areas, protected areas No families will be displaced from the site Identified impacts are minor, marginal and of little significance Mitigation measures for the identified impacts are understood and practiced in the area The stakeholders have adequate practical experiences in natural resource conservation and management 	<p>The Proposed Project Activity Needs Further Compliance with EIA Requirements on the Following Observations:</p> <ul style="list-style-type: none"> Field appraisals indicate that the project site is within environmentally sensitive areas, protected areas Cause adverse socio-economic impacts Significant number of people, families will be displaced from the site Some of the predicted impacts will be long term, complicated, extensive Appropriate mitigation measures for some of the predicted impacts are not well known in the area
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Completion by District Environmental Officer

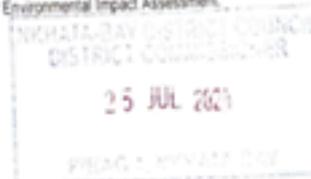
Is This Project Likely To Need An EIA?	YES / NO
Is this Project Likely to require a RAPIRAP	YES / NO
List A/B Paragraph Numbers	
Date Exempted	
Date Forwarded to EAD Head Office	
Name & Signature of EDO	Neyal Muthiyah DO

Completion by Director of Environmental Affairs

Date Received from District Council	
Date Reviewed	
Date of Submission of Project Brief	
Date of Submission of EIA Reports	
Date of Approval /Rejection	

NOTES:

- Once the Environmental and Social Screening Form is completed, it is analysed by experts from the District Environmental Sub-Committee who will classify it into the appropriate category based on predetermined criteria and the information provided in the Form.
- All projects proponents exempted from further impact assessment must be informed to proceed with other necessary procedures.
- All projects recommended for further impact assessment will have to follow procedures outlined in Section 24 and 25 of the Environmental Management Act, and the Malawi Government's Guidelines for Environmental Impact Assessment.



A9.6 Sonda Community Skills Development Centre



Government of the Republic of Malawi
 Ministry of Natural Resources, Energy and Mining
ENVIRONMENTAL AND SOCIAL SCREENING FORM

GUIDELINES FOR THE EVALUATION

1. The evaluator to undertake the assignment after adequate knowledge of baseline information of the area.
2. The evaluator to undertake the assignment after adequate knowledge of proposed project activities in the area.
3. The evaluator to undertake the assignment after prior briefing/training of the exercise.
4. The form to be completed by consensus of at least three people.

Project Name <i>Sonda, MZUW</i>	Estimated Cost (MK) <i>574,511,442.46</i>
District and Traditional Authority <i>Mzimba, Kampanjo Sibanki</i>	Funding Agency <i>SAUC, World Bank</i>
Project Objectives <i>Increase enrolment of students</i>	Proposed Main Project Activities <i>- ICT Laboratory and classroom - Plumbing workshop and classroom - carpentry workshop and classroom</i>
Name, Signature & Designation of Evaluator(s): 1. <i>Cathy Mux</i> 2. <i>Breatus Mzimba</i> 3. <i>Masautsa Kalus</i>	Date of Field Appraisal <i>25/04/2026</i> - ICT Equipment, Plumbing Carpentry & Joinery - People with disability - Capacity building

	SCOPE AND FOCUS OF SCREENING	METHODOLOGY OF SCREENING				PROPOSED MITIGATION MEASURES
		Appraisal of Impacts		Significance of the Impacts		
		Yes	No	Low	Medium	
1.0	SCREENING CRITERIA FOR PROPOSED SITE FOR THE PROJECT					
	Is the project site within and/or will it affect the following environmentally sensitive areas?					
1.1	National parks and game reserves	✓				
1.2	Wetlands	✓				
1.3	Productive traditional agricultural/grazing lands	✓				
1.4	Areas with rare or endangered flora or fauna	✓				
1.5	Areas with outstanding scenery/tourist site	✓				
1.6	Within steep slopes/mountains	✓				
1.7	Dry tropical forests e.g Brachystegia species	✓				
1.8	Along lakes, along beaches/riverines	✓				
1.9	Within prime groundwater recharge area (characterised by high infiltration)	✓				
1.10	Within prime surface runoff water	✓				
1.11	Near potable drinking water sources	✓				



	SCOPE AND FOCUS OF SCREENING	METHODOLOGY OF SCREENING					PROPOSED MITIGATION MEASURES
		Appraisal of Impacts		Significance of the Impacts			
		Yes	No	Low	Medium	High	
9	SCREENING CRITERIA FOR ENVIRONMENTAL IMPACTS DURING IMPLEMENTATION AND OPERATION						
	Will the implementation and operation of the project activities within the selected site generate the following impacts?						
1.1	Loss of trees/vegetation						
1.2	Soil erosion	✓					Plant more trees by contour works
1.3	Damage of wildlife species and habitat	✓					Construction of retaining walls
1.4	Increased exposure to agro-chemical pollutants		✓				Plant more trees
1.5	Chemical pollution		✓				
1.6	Nuisance - smell, dust or noise		✓				
1.7	Reduced water quality	✓					Construct a screen wall during washes
1.8	Increase in costs of water treatment		✓				
1.9	Soil contamination		✓				
1.10	Risk of injuries to workers and communities		✓				
1.11	Siltation of watercourses, dams	✓			✓		Train workers on safety
1.12	Loss of soil fertility		✓				
1.13	Increasing incidences of diseases		✓				
1.14	Reduced flow and availability of water for users	✓		✓			conservation
1.15	Long term depletion of water resources		✓				
1.16	Increased incidence of flooding		✓				
1.17	Salinisation or alkalinisation of soils		✓				
1.18	Changes in migration patterns of animals		✓				
1.19	Introduce alien plants and animals in the area	✓	✓				
1.20	Increased incidences of plant and animal diseases		✓				Clean the washways
1.21	Poor waste disposal		✓				
1.22	Increased cases of open defecation	✓		✓			dispose waste in designated area
1.23	Disturbance of river banks and/or drainage systems due to sand mining	✓		✓			Construct bridges
1.24	Creation of borrow pits arising from extracting of construction materials	✓		✓			Get sand from the DC
1.0	SCREENING CRITERIA FOR SOCIAL AND ECONOMIC IMPACTS	Yes	No	Low	Medium	High	PROPOSED MITIGATION MEASURES
	Will the implementation and operation of the project activities within the selected site generate the following socio-economic costs/impacts?						
1.1	Loss of land for human settlement, farming, grazing		✓	✓			locate land for farming
1.2	Loss of property - houses, agricultural produce, etc.	✓		✓			re-allocate area
1.3	Loss of cultural sites - graveyards, monuments, etc.	✓		✓			Construction to start earlier
1.4	Interference in marriages for local people	✓	✓				
1.5	Loss of income generating capacity		✓			✓	separation
1.6	Spread of HIV and AIDS, STDs	✓	✓				
1.7	Changes in human settlement patterns of villages		✓				Separation, provision of fuel
1.8	Conflicts over use of natural resources such as water and forest resources		✓				
1.9	Population influx		✓				
1.10	Conflicts over land use and ownership		✓				
1.11	Disruption of important pathways, roads	✓	✓	✓			
1.12	Loss of access to public facilities e.g. classrooms, staff house, etc.		✓				Construction alternative P.K. way
1.13	Increase in cases of theft and crime	✓			✓		
1.14	Risk of child labour	✓			✓		Intensify security / community police
1.15	Increase in child mortality	✓			✓		Separation

3.13	Increase in cases of theft and crime	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
3.14	Risk of child labour	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
3.15	Increase in school drop-out	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
3.16	Lack of access to public facility by persons with disability	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
3.17	Increase in cases of gender based violence	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
3.18	Increased competition for public social services	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
3.19	Increased prices of local commodities	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
4.0	SCREENING CRITERIA FOR POSITIVE SOCIAL AND ECONOMIC IMPACTS	Yes	No	Low	Medium	High	
	Will the implementation and operation of the project activities within the selected site generate the following positive socio-economic impacts?						
4.1	Creation of job opportunities						
4.2	Promotion of local skills and knowledge						
4.3	Asset creation						
4.4	Improved transportation						
4.5	Improved standards of living/social status						
4.6	Improved food security						
4.7	Creation of business opportunities						
4.8	Increased income at individual/household level						

Provide the inputs for the following screening criteria

Screening Criteria

PROPOSED ENVIRONMENTAL MEASURES

OVERALL EVALUATION OF THE SCREENING PROCESS ON THE SITE AND PROJECT ACTIVITY

The result of the screening process would be either the proposed project would be permitted to proceed on the site or the proposed project needs further compliance with EIA requirements. The basis of these options is listed in the table below:

The Proposed Project Activity Can Be Exempted from Further Compliance with EIA Requirements on the Following Observations:	The Proposed Project Activity Needs Further Compliance with EIA Requirements on the Following Observations:
Field appraisals indicate that the site of the project will not be within environmentally sensitive areas, protected areas	Field appraisals indicate that the project site is within environmentally sensitive areas, protected areas
No families will be displaced from the site	Causes adverse socio-economic impacts
Identified impacts are minor, marginal and of little significance	Significant number of people, families, will be displaced from the site
Mitigation measures for the identified impacts are understood and practiced in the area	Some of the predicted impacts will be long term, complicated, extensive
The stakeholders have adequate practical experiences in natural resource conservation and management	Appropriate mitigation measures for some of the predicted impacts are not well known in the area

Completion by District Environmental Officer	
Is This Project Likely To Need An EIA?	YES / NO
Is this Project Likely to require a RAP/RAP?	YES / NO
List A/B Paragraph Numbers	
Date Exempted	
Date Forwarded to EAD Head Office	
Name & Signature of EDO	

Completion by Director of Environmental Affairs	
Date Received from District Council	
Date Reviewed	
Date of Submission of Project Brief	
Date of Submission of EIA Reports	
Date of Approval /Rejection	

NOTES:

Once the Screening Form is completed, it is analysed by experts from the District Environmental Affairs Department based on predetermined criteria and the information provided

Annex 10: 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.

- ✓ The Institutional & Community Grievance Redress Management Committees (ICGRMC) has been established by Salima Technical College to manage grievances at the Institutional & Community level. For this GRM, a community comprises the Group Village Headman area where Salima Technical College is located. The committee comprises Salima staff and students' representatives, affected community representatives, one women's representative, and one representative from VDC. The Group Village Head may attend, where necessary. The committee is the lowest and an entry point for 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, Salima 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 of two workers' representatives, a Salima Technical College representative, a Contractor representative and a representative from the District Labour 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)

In the event that the case was not closed at Institutional & Community Level, the case will be referred to the PIUGRMC. The PIUGRMC shall hear the case and review the decisions made earlier by the two lower committees. If the aggrieved party shall accept the resolution made, the case shall therefore be closed at this level.

Referral grievances will be investigated in detail to determine the cause of the unsatisfactory outcome and to attempt to resolve and close the grievance. When a complainant is not satisfied with the resolution offered by the Project Grievances Redress Committee, the grievance can be

referred to other institutions, for example the District Labour Office in the case of employment grievances or the courts of law. Where the case was not closed at this level, the aggrieved party shall be advised to seek justice from other institutions (for example the District Labour Office in the case of employment grievances or the Court of Law. The decision made by the Court of Law shall be final.

Grievance Reporting and Grievance Recording

The grievance redressal committee will have to make available multiple ways for grievance reporting. Complaints of grievances may be reported in different ways including but not limited to the following:

- Face-to-Face: this includes verbal or written submissions through face-to-face interactions with members of grievance redressal committees.
- Grievance Box: these will have to be placed in strategic places around the Salima Technical College Campus.

GRM FOCAL PERSONS FOR COMPETITIVE GRANT WINNERS				
NO.	INSTITUTION	LOCATION	NAME OF OFFICER	CONTACT NUMBER
1	Kasama CTC	Chitipa	Dumisani Jere	0999198597
2	SOS Technical College	Lilongwe City	John Masingolo	0888771800/0991338500
3	Kasungu CSDC	Kasungu	Mrs. Caloryn Chisati	0993692721
4	MACOHA VTC	Area 14 Lilongwe	Alexina Katha	0888118805
5	Kapondo CTC	Mchinji	Peter C. Symon	0997166506/0998427484
6	Mangochi CTC	Mangochi	Keffa Chitseko	0884306682
7	Nthiransembe CSDC	Ntchisi	Naomie Banda	0992125402/0884962818
8	Solar Energy and Ecology Institute	Nkhatabay	Prince Kuonela	0995748664/0855318998
9	Andiamo Technical College	Balaka	Kettie Kamutu	0994339022
10	Ezondweni CTC	Mzimba	Samson James Chikwama	0993930787/0881425325
11	Mbulunji CSDC	Rumphi	Margret Mulagha	0990172829
12	MIRACLE Technical Institute	Karonga	Madalo Bula	0888469999
13	Ntchisi CSDC	Nthisi	Margret matias	0999898294
14	Phwezi Women's Training Centre	Rumphi	Kondwani Ng'oma	0995484753
15	Sonda CSDC	Mzuzu City	Martin Chipeta	0995622721

NB:

- Consider applying highly anonymous ways of reporting such cases (The above ways are not anonymous enough and anything can happen)
- The institution shall ensure that complaints involving sensitive health issues like HIV/AIDS will be handled with utmost confidentiality.
- Accessible formats (e.g., Braille, large print) and assistance (e.g., sign language interpreters) will be made available upon request so that people with disabilities can also be assisted.
- The institution shall provide support for SEA case management. Survivors shall be supported to access justice and services such as counselling, medical, psychological first aid and mental health.
- There shall be Awareness and Training: Conduct regular awareness campaigns and training for committee members on GBV, HIV/AIDS-related stigma, and disability rights.
- Monitoring and Evaluation including its tools shall be provided: these shall include specific metrics in the grievance registry to track cases involving GBV, HIV/AIDS, and disabilities for better policy adjustments.
- Community Engagement: Involve NGOs or specialists in gender, HIV/AIDS, and disability advocacy for external support and capacity

Annex 11: 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.

A11.1 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.

A11.2 Traffic Control Measures

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

A11.3 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.

A11.4 Pedestrian Safety

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

A11.5 Public Communication

- **Information Dissemination:** Use multiple channels (e.g., local radio, social media) to keep the public informed about construction schedules, road closures, and alternative routes.
- **Signage and Maps:** Provide clear signage and maps around the college to help drivers and pedestrians navigate the area during construction.

A11.6 Monitoring and Adjustments

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

A11.7 post-construction

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

Annex 12: Emergency Preparedness and Response Plan

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.

A13.1 Spill Prevention and Management Plan

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

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

- Identification of potential sources of spill and the characterization of spill material and associated hazards.
- Risk assessment (likely magnitude and consequences)
- Steps to be undertaken taken when a spill occurs (stop, contain, report, clean up and record).
- A map showing the locations of spill kits or other cleaning equipment. This should also be included in the C-ESMP.

A13.2 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

A13.3 Roles and Responsibilities

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

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

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

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

A13.3.1 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.

A13.3.2 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.

A13.3.3 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.

A13.3.4 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.

A13.4 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.

A13.5 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.

A13.6 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.

Annex 13: Hazardous Waste and Materials Management Plan

Purpose of the plan

The Hazard Waste and Materials Management Plan aims at ensuring and maintaining a safe and secure environment for the employees and students working with the hazardous waste. It also ensures that there is compliance to the Environment Management Act of 2017 of the Republic of Malawi.

TEVET is committed to maintain and support programs that are designed to prevent and reduce the risks of hazardous wastes and materials by ensuring proper handling, transportation, treatment and disposal of hazardous waste.

Scope of the Plan

The hazardous waste management plan shall be used for all interventions which will involve handling of hazardous materials and waste in the project site.

Roles and Responsibilities

The plan shall be implemented by all GWIs which will be handling hazardous waste. At the institution's levels, there are sector heads, students, and the management which will be directly involved in management of the hazardous waste and materials. The following are the roles and responsibilities of the implementing entities;

Faculty and Staff

- Knowledge and understanding of steps needed to maintain compliance.
- Reducing hazardous waste quantities by reducing, reusing, and recycling, and prudent procurement practices.
- Maintaining proper storage and management of all generated wastes (hazardous, non-hazardous, and universal).
- Ensure waste containers and hazardous materials are properly labeled and in good repair. Provide secondary containment when possible, ensuring hazardous wastes or other regulated wastes are not stored outside or in unapproved locations.
- Consistently knowledgeable of the contents of each waste container, and prevent mixing of incompatible wastes that could create dangerous reactions.
- Completing required paperwork/notification to notify EHS that they require waste pickup services

Students

- Follow all safety guidelines
- Use chemicals responsibly, and properly label and store hazardous materials.
- Dispose of waste in designated containers and never pour chemicals down the drain or mix unknown substances.
- Reporting spills, leaks, or unsafe conditions to the supervisor immediately.
- Wearing protective gear,
- Help maintain a safe and environmentally responsible laboratory.

Training requirements

All employees who manage or handle hazardous waste or other regulated wastes must receive appropriate training. Applicable GWIs employees must obtain basic training before being required to work with hazardous wastes and materials. Refresher training must be undertaken semi-annually. The training may include;

- Overview of MEPA regulations and World Bank EHS Guidelines
- Generator responsibilities
- Hazardous waste and materials determination
- Waste classification, labeling, segregation and storage requirements
- Spill cleanup procedures
- Regulatory waste disposal procedures
- Occupational Health and Safety
- Hazardous waste and materials categorisation; ignitable, explosive, corrosive, bio-medical, reactive, oxidizing, toxic waste and materials

Hazardous waste and materials management plan

The following table shows measures which will be employed for specific hazardous waste and materials to be managed at the facilities.

Waste /materials type	Examples of potential waste/materials	Handling Procedures	Storage Requirements	Disposal Method	Responsible Personnel	Budget
Ignitable	Ethanol, acetone, ether	Use in small quantities; avoid heat/flames	Store in flammable-proof cabinet; keep away from ignition sources	Collected by licensed hazardous waste contractor	Lab Technician, Science Instructor	Budgeted under yearly operations of the GWIs
Explosive	Peroxide-forming chemicals, picric acid	Handle with extreme care; avoid friction/shock	Store in cool, dry place; check regularly for stability	Neutralized by trained personnel or hazardous waste contractor	Chemistry Instructor, Safety Officer	Budgeted under yearly operations of the GWIs

Corrosive	Hydrochloric acid, sodium hydroxide	Use appropriate PPE; pour acids/bases carefully	Store in corrosion-resistant containers; segregate acids/bases	Neutralize before disposal (if approved) or store for pickup	Lab Assistant, Lab Supervisor	Budgeted under yearly operations of the GWIs
Reactive	Sodium metal, water-reactive compounds	Keep away from water/humidity; handle under inert atmosphere if needed	Store in oil/inert atmosphere; tightly sealed containers	Special hazardous waste disposal procedures	Chemistry Instructor, Safety Officer	Budgeted under yearly operations of the GWIs
Oxidizing	Hydrogen peroxide, potassium permanganate	Avoid contact with organics/reducing agents	Store separately from flammables; use vented containers	Collected and disposed by licensed contractor	Lab Technician, Chemistry Instructor	Budgeted under yearly operations of the GWIs
Toxic	Heavy metals (mercury, lead), formaldehyde	Use PPE; avoid skin contact and inhalation	Store in sealed, labeled containers; avoid leaks/spills	Dispose via licensed toxic waste handler	Lab Technician, Environmental Officer	Budgeted under yearly operations of the GWIs
Materials	Empty chemical containers, broken glassware, gloves	Triple rinse if hazardous; label "empty" if applicable	Store in designated non-hazardous or recycling bins	Recycle if possible; otherwise dispose as general or hazardous	Lab Assistant, Waste Coordinator	Budgeted under yearly operations of the GWIs

Toxic or Hazardous Materials

Toxic or hazardous materials are any substances that endanger the health and safety of employees or the environment. Release of such material is defined as liquid spills, venting and/or re-entry into the air intake, of gases, fumes, vapors or mists, or hazardous solids outside of their normal containers, or the release of pathogens or radioactive material. Depending on the quantity and inherent hazard of the released materials, hazardous materials spills can be broadly classified as incidental or non-incidental:

- **Incidental Spill:** Spill/release that will not reasonably cause health or safety hazards to employees/students and will not result in any sustained environmental degradation. Responses to incidental releases of hazardous substances where the substance can be absorbed, neutralized, or otherwise controlled at the time of the release by responders are not considered to be an emergency within the scope of this plan. Responses to releases of hazardous substances where there is no immediate safety or health hazard (i.e., fire, explosion, or chemical exposure) or hazard to the environment are not considered to be an emergency.
- **Non-Incidental Spill:** Spill/release that requires a response effort from outside the immediate release area by other designated responders (i.e., trained emergency responders such as mutual aid groups, local fire departments, etc.) because the incident will result, or is likely to result, in an uncontrolled release which may cause high levels of exposure to toxic substances, or which poses danger to employees or the environment requiring immediate attention. Responding to non-incidental spills is considered an emergency response and requires persons who have had 40 hr. Hazardous Waste Operations and Emergency Response training (HAZWOPER) and subsequent 8 hr. annual refresher training to conduct the response, or an outside entity who specializes in emergency response.

Incidental Spill Response

- Verbally notify everyone within hearing distance that a spill has occurred.
- Refer to the Safety Data Sheet for hazard information.
- Put on the appropriate personal protective equipment.
- Confine the spill. If liquid, dike the spill with spill pillows or pigs, then place absorbent material over the contamination. If dry, carefully scoop, sweep or otherwise pick up the spilled material being careful to prevent it from becoming airborne.
- If the spill is on skin or in the eyes, flush thoroughly with running water for a minimum of 15 minutes, then seek medical assistance/evaluation. If the spill is on clothing, you must discard all outer clothing and shower off for a minimum of 15 minutes. Enlist the help of other persons to conduct the spill clean-up.

Non-Incidental Spills

- Employees will evacuate the danger area, and no one who is not HAZWOPER trained shall assist in handling the emergency.
- If it is safe to do so before evacuating, employees will secure the spill area by performing emergency measures such as diking the spill, turning on hoods, extinguishing ignition sources, and closing doors, as they evacuate the spill area.

Waste segregation and packaging

Waste segregation at the point of production into suitable colour-coded packaging is vital to good waste management. It refers to the practice of separating different types of waste materials based on their characteristics, properties, or hazardousness. Hazardous waste must be separated at the point of generation according to its chemical, physical, and biological properties.

Segregation Guidelines

- Use **color-coded, clearly labeled containers**
- **Do not mix** incompatible wastes (e.g., acids with bases, oxidizers with organics).
- Maintain **separate logs** for each waste category.
- Use **secondary containment** for liquid wastes.

Storage of Laboratory Waste

Waste storage is the temporary placement of waste at the point of generation or an external storage site before transportation and/or final disposal. The following criteria should apply in all instances of waste storage:

- The waste storage site (WSS) shall be clearly demarcated and labelled as such.
- The WSS must have sufficient capacity to store all waste according to the unique waste generation profile (in line with agreed collection schedules), and for temporary stockpiling during unforeseen emergencies.
- It should be sheltered, enclosed with a lockable door and round the clock surveillance to protect it from sun, rain, unauthorised access as well as scavenging.
- It should be well ventilated to maintain the lowest possible ambient temperature to combat the potential of odour nuisance and accelerated decomposition.
- The floor of the WSS should be impermeable, slip-resistant, and hard standing to facilitate easy cleaning.
- The facilities must be suitably equipped with a fire extinguisher, a proximal water source to facilitate cleaning and good drainage connecting to the sewer.
- The facility must be well lit, convenient, and easy to use, and accessible to waste handlers and waste collection vehicles.
- The WSS should be in a location where there is low public presence/passage.
- A staff member responsible for managing and maintaining the WSS should be suitably equipped with the necessary PPE, which should include but not limited to; gumboots, work uniform, elbow-length Polyvinyl Chloride (PVC) gloves or similar alternative, mask, protective eye goggles and an apron.
- Chemical waste of different classes should be stored separately before disposal.
- Laboratories should set standardized storage periods for laboratory waste according to the various categories in line with local and international regulations.

Hazardous waste and materials transportation

- All necessary care must be taken to prevent odour nuisance to the neighbourhoods.
- Where hazardous wastes and other wastes have been mixed, they must be considered hazardous and managed as such.
- Laboratory waste must be transported directly to the disposal or treatment site within the shortest possible time.
- Vehicles (trolleys, carts, mobile garbage bins, light trucks) used for transportation of Laboratory waste must be so constructed as to prevent the scattering of packaged wastes, spills, odour nuisance, must be leakproof and must not be used to transport any other materials other than laboratory waste.
- Waste must not be compacted or subjected to any other treatment that could cause bags or containers to rupture.
- Labels must be firmly attached to containers so that they do not become detached during transportation and handling.

Waste management methods for laboratory waste and hazardous materials

Chemical waste: There must be either disinfected or naturalised or a combination of both methods.

Annex 14: Study Team

Name	Qualification	Role
Benjamin Kamanga	MSc Environmental Science Executive Master in Business Administration (MBA) BSc in Environmental Science	Team leader/ Individual consultant
Charlotte Kalua	BSc Agricultural Economics.	Social Expert (Associate Consultant)
Gracious Chinguwo	BSc Geo-Information and Earth Observation Science	GIS and remote sensing Expert (Associate Consultant)
Doreen Nfune	BSc Environmental Science.	Environment Expert (Associate Consultant)
Julius kalonga	BSc in Aquaculture and Fisheries Science	Environment Expert (Associate Consultant)