THE REPUBLIC OF MALAWI

MINISTRY OF EDUCATION AND MINISTRY OF LABOUR

SKILLS FOR A VIBRANT ECONOMY

P172627

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

FOR

LILONGWEE UNIVERSITY OF AGRICULTURE AND NATURAL RESOURCES: BUNDA CAMPUS

FOOD PROCESSING PLANT

MARCH, 2025

EXECUTIVE SUMMARY

i. Introduction

Bunda College at the Lilongwe University of Agriculture and Natural Resources (LUANAR) participates and is a beneficiary of the Skills for a Vibrant Economy (SAVE) project. The project is funded by the World Bank and is implemented through the Ministry of Education and the Ministry of Labour and Vocational Training. The project will run from 3rd June 2021 to 30th June 2026. The main project objective is to increase access, particularly for females, to labour market-relevant skills development programs, in participating institutions. The project consists of four components. Components 1 and 2 support public Higher Education (HE) and Technical Entrepreneurial and Vocational Education and Training (TEVET) institutions. The SAVE project targets nine (9) universities, seven (7) national technical colleges and thirty (30) selected community technical colleges. Under component one, the project will construct and enhance infrastructure that provides additional physical and virtual space for student enrolment through face-to-face (F2F), blended, and ODeL instruction Communications. The project will support the construction of a Food Processing Plant at Bunda College from April 2025 to March 2026 (12 months). This Environmental and Social Management Plan (ESMP) is for constructing a Food Processing Plant (a Wet and Dry Daily Processing building). The ESMP follows a recommendation of the environmental and social screening that LUANAR in conjunction with the Malawi Environment Protection Authority conducted before the commencement of civil works as per terms of reference. The screening categorized the project as moderate risk.

The main construction activities will include the construction of a Food Processing Plant and associated ancillary structures like a car park and access road. The ESMP highlights potential environmental and social risks and impacts and proposes mitigation and enhancement measures. The ESMP development process involved consultations with key stakeholders, reviewing national social and environmental laws, the World Bank's Environmental and Social Framework (including ESS1, ESS2, ESS3, ESS4, ESS6, ESS10) and the Environmental, Health, and Safety (EHS) guidelines. The ESMP provides positive and negative impacts and proposes enhancement and mitigation measures.

ii. Potential Environmental and Social Risks and their Mitigation Measures for the Construction of the Food Processing Plant Project Activities are Summarised Below:

SN	Environmental Risks	Proposed Mitigation Measure	Impact Extent
1	Increased water demand for construction activities	Promote water reuse/recycling and installation of water-conserving taps, contractor and institution to sign water use agreement	Low Negative
2	Increased energy demand	Install solar system and switch off all lights when a building is not in use. Contractor and institution to sign electricity use agreement	Low negative
3	Increased Pollution of nearby fish ponds	• Implement the project waste management plan (WMP) • Collect, separate, and store waste per legal standards. • Ensure rapid spill response and remediation of contaminated sites following construction activities. • Ensure appropriate containment and disposal of construction wastewater, including sanitary water. • Protect and reserve removed topsoil for backfilling and restoration purposes • Limit stockpile height to 2 m maximum to avoid soil eroding into the ponds	Medium negative
4	Increased air pollution caused by dust from construction activities at the construction site	Sprinkle water to reduce dust in civil works areas and earth roads	Medium Negative
5	Dust from vehicle movement	Sprinkle water before vehicle movements start and when roads dry out and start producing dust as vehicles move	Medium Negative
6	Increased soil erosion due to site preparation, excavations and vegetation clearance	• Stabilize the slopes to reduce further soil erosion during construction. • Plant 50% trees to replace those that have been cut during the construction phase. • Re-cover exposed soils with grass and other ground cover as soon as possible; • Level the project site to reduce soil erosion • Stockpile construction material away from any surface drainage channels and features; • Place low bumps around the piles of sand; • Cap exposed soils with tarpaulin to prevent erosion during rainy days • Minimise stockpiling of erodible materials and deliver materials on-site when required	Medium Negative

SN	Environmental Risks	Proposed Mitigation Measure	Impact Extent
7	Increased soil contamination and degradation from oil leaks-threatening the nearby fish ponds	• Use impermeable-surfaced vehicle service areas • Service construction vehicles regularly to minimise fuel leakages	Medium Negative
8	Loss of biodiversity (especially grass, herbs and invertebrates) at the construction site.	• Minimise loss of biodiversity by avoiding unnecessary clearing of land • Clear areas where infrastructure will be located and leave the natural vegetation and its associated fauna intact. • Replant 10 trees for every tree cut	Low Negative
9	Increased solid waste from: • Food processing • E-waste from expired equipment • Domestic waste • Hazardous waste	• Develop and implement a waste management plan • Dump waste at designated sites • Introduce waste reduction, reuse and recycling • Provide toilets at the construction site • Provide waste disposal bins • Collect and dispose of waste in designated Lilongwe city council sites • Reuse construction rubble • Sensitize project staff on waste management • Store and handle hazardous materials as prescribed by the manufactures	Medium negative
10	Increase generation of liquid waste	• Provide spill-control kits and materials. • Ensure that spill containment and clean-up procedures are followed, with workers trained in the use of spill-response equipment. • Promote good housekeeping and sanitation practices at each site, including sanitary and hand-washing facilities • Connect the building to existing septic tank • Inspection and service sewer line system. •	Medium negative
11	Increased organic waste	• Promote recycling and disposal and designated sites	Low Negative
12	Increased noise pollution	• Restrict operating hours for specific equipment and operations • Inform residents beforehand, via notices and local leaders of pending noisy periods and solicit	Low Negative

SN	Environmental Risks	Proposed Mitigation Measure	Impact Extent
		their tolerance well before the commencement of works • Provide ear protection materials to project workers • Implement advanced technologies and limit concurrent machine operations to reduce emissions. • Establish and enforce traffic speed limits monitoring driver compliance • Service vehicles regularly	

SN	Social Risks	Proposed Mitigation Measure	Impact Extent
1	Increased school dropout & increased pregnancies among young girls	• Sensitise and conduct awareness campaigns to surrounding schools about teen pregnancies, child marriages and the importance of schools • All construction workers to sign CoC	Medium Negative
2	Increased Occupational & Community Health and Safety & Security (accidents & injuries)	• Conduct a health and safety awareness campaign • Control the speed of construction vehicles to avoid accidents	Medium Negative
3	Creation of anxiety amongst students about disruption of teaching and learning activities at the college	• Sensitize the lecturers and students about the project and assure the concerned parties that all construction sites will be screened to avoid disturbing teaching and learning activities through meetings and electronic communications.	Low Negative
4	Increased noise pollution from heavy equipment and machinery	• Observe recommended speed limits from the Traffic Management Plan for this project • Provide ear protective wear to workers. • Restrict noisy construction activities to less critical periods in consultation with college management	High Negative

SN	Social Risks	Proposed Mitigation Measure	Impact Extent
		• Inform residents beforehand, via notices and advisories, of pending noisy periods	
5	Increased accidents from vehicles and fire	• Control the speed of construction vehicles to avoid accidents • Conduct fire drills for workers • Install fire-fighting equipment	Medium negative
6	Increased disruption of social interactions in the nearby communities e.g. marriage breakups	• Sensitise and conduct awareness campaigns to surrounding communities, project workers staff and students on the dangers of unacceptable sexual unions.	Medium Negative
7	Increased potential labour rights violations e.g. unequal access to job opportunities	• Employ unskilled labourers from surrounding communities • Give women and men equal employment opportunities.	Low negative
8	Increased spread of sexually transmitted infections (STIs)	• Develop, use and sensitise workers, staff, students and community members on the OHS Plan for the project. • Provide counselling services to those who may contract STIs • Establish links with service providers or Bunda Clinic for STIs and HIV Counselling, testing and treatment and safe sex including routine use of condoms	Medium Negative
9	Increased potential Sexual Harassment (SH) / Sexual Exploitation and Abuse (SEA)	• Sensitise workers, staff, students and community members on Gender Based Violence and the existence of the GBV Management Plan. • Provide counselling services to victims	Medium Negative
10	Increased Gender-Based Violence	• Sensitise workers, staff, students and community members on the existence of the GBV Management Plan. • Provide counselling services to victims	Low negative
	Increased risk of child labour	• Use national identification cards to ascertain the age of the prospective workers. • Ensure that all contractors and subcontractors adhere to local and	Low Negative

SN	Social Risks	Proposed Mitigation Measure	Impact Extent
		international labour laws prohibiting child labour. • Strategically, erect signage, with prevention of child labour messages at construction sites • Set up an anonymous reporting system where incidents of child labour can be reported without fear of retribution.	
11	Disruption of Traffic and Access to surrounding areas	• Implement the Traffic Management Plan (TMP) • Sensitise all people on requirements of the TMP • Avoid heavy vehicle movement during peak hours • Provide detours where possible	Medium Negative
12	Increased risk from natural hazards such as flooding and cyclones due to climate change	• Design and construct climate change and resilient Food Processing Plant	Low Negative
13	Decreased jobs/employment /business opportunities after demobilization	• Sensitise employees and local business owners from the local area about the end of a project	Low negative

The contractor must develop a Contractor Environmental and Social Management Plan (CESMP) from this ESMP, which should be attached to the bid documents. This report provides outlines of the specific plans to be included in the CESMP. These should include a Labour Management Plan (LMP), Waste Management Plan (WMP), Traffic Management Plan (TMP), Stakeholder Engagement Plan (SEP), Workers Grievance Redress Mechanism (WGRM), Health Workplace Policy, Environmental Social Commitment Plan (ESCP), Gender Based Violence Management Plan (GBVMP), Child Protection Management Plan (CPMP) and Code of Conduct (CoC) which will be signed by all workers under this project, written in both Chichewa and English languages. Issues concerning emergency preparedness, noise and vibrations should be included in the main CESMP. It is also recommended that the Contract should consist of a provision for retaining some percentage of the contract fee recommended by the Malawi Environment Protection Authority for any remedial actions in case the contractor does not attend to some environmental issues. Regular monitoring and updates will be conducted to ensure the plans are implemented successfully.

iii. Positive Impacts

Some people's livelihoods will improve through job opportunities and small-scale businesses, particularly during construction. The construction of the Food Processing Plant is also expected to enhance the college's aesthetic appeal and increase access to higher education.

iv. Implementation arrangement

The implementation arrangements and responsible parties for the ESMP are outlined at the national and regional levels, including MEPA, the Ministry of Education, PIU, local field staff, and local contractors. Training will also be coordinated at the national level and provided at the regional level to ensure effective implementation of the ESMP. Responsible entities, including the Developer (LUANAR at Bunda campus), Contractor, Local Leaders, and government officers, will monitor the project's risks and impacts, employing methods such as sensitization and training, site visits, regular meetings, written reporting, and frequent monitoring of internal drainage systems and energy and water usage. A separate Stakeholder Engagement Plan (SEP) has been prepared for the project, based on the World Bank's Environmental and Social Standard 10 on Stakeholder Engagement. The SEP can be found on: https://documents1.worldbank.org/curated/en/314131616158364147/pdf/Stakeholder-Engagement-Plan-SEP-Skills-for-A-Vibrant-Economy-Project-P172627.pdf

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
BSc	Bachelor of Science
CESMP	Contractor Environmental and Social Management Plan
CoC	Codes of conduct
CPMP	Child Protection Management Plan
COVID-19	Coronavirus Disease of 2019
DEC	District Education Officer
dB	Decibel
DESC	District Environmental Sub-Committee
DPM	Damp proof Membrane
DRR/DRM	Disaster Risk Reduction/Disaster Risk Management
E&S	Environmental and Social
EDO	Environmental District Officer
EHS	Environmental, Health and Safety
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
ESCOM	Electricity Supply Commission of Malawi
ESCP	Environmental and Social Commitment Plan
ESF	Environmental and Social Framework
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESRS	Environmental and Social Risks Summary
ESS	Environmental and Social Standard
GBV	Gender-Based Violence
GBVMP	Gender BasedGender-Based Violence Management Plan
GRM	Grievance Redress Mechanism
GRMC	Grievance Redress Management Committee

GVH	Group Village Headman
HE	Higher Education
HIV	Human Immunodeficiency Virus
HR	High Risk
IBR	Inverted Box Rib
IDA	International Development Association
LMP	Labour Management Plan
LUANAR	Lilongwe University of Agriculture and Natural Resource
LWB	Lilongwe Water Board
M & E	Monitoring and Evaluation
MBS	Malawi Bureau of Standards
MEPA	Malawi Environment Protection Authority
MR	Medium Risk
MWK	Malawi Kwacha
NCHE	National Council for Higher Education
NCIC	National Construction Industry Council
NGL	Natural Ground Level
NGOs	Non-Governmental Organizations
ODeL	Open Distance and e-Learning
OHS	Occupational Health and Safety
OHSMP	Occupational Health and Safety Management Plan
OSHW	Occupation Safety Health and Welfare
PIU	Project Implementation Unit
PPEs	Personal Protective Equipment
PVC	Polyvinyl Chloride
SAVE	Skills for a Vibrant Economy
SDGs	Sustainable Development Goals
SEA	Sexual Exploitation and Abuse
SEP	Stakeholders Engagement Plan
SH	Sexual Harassment

SR	Substantial Risk
STIs	Sexually Transmitted Infections
TEVETA	Technical, Entrepreneurial and Vocational Education and Training Authority
TMP	Traffic Management Plan
UTM	Universal transverse Mercator
WC	Water Closets
WMP	Waste Management Plan
WGS	World Geodetic System

1.0 INTRODUCTION

Government of Malawi, through the Ministry of Education and Bunda College, is implementing a Skills for A Vibrant Economy (SAVE) Project with financing from the International Development Association (IDA) of the World Bank Group to the Government of the Republic of Malawi. The project duration is from 03rd June 2021 to 30th June 2026. The Project Development Objective (PDO) is to increase access, particularly for females, to labour market-relevant skills development programs, in participating institutions, targeting priority areas of the economy. The project is aimed at increasing access to higher education, particularly for females, to labour market-relevant skills development programs through the construction of a Food Processing Plant at Bunda College which is under Lilongwe University of Agriculture and Natural Resources (LUANAR) and the full project scope is in Appendix 2. The college is located in Lilongwe district, in the central region of Malawi. The Ministry of Education and Ministry of Labour and Vocational Training will implement the project activities, and LUANAR will be responsible for day-to-day project activities.

The Environmental and Social Management Plan (ESMP) has been developed in line with the ESMF which outlines the E & S requirements for the Skills for a Vibrant Economy (SAVE) project sub activities, specifically for the construction and operation of a Food Processing Plant. The ESMP follows a recommendation from the screening exercise (Appendix 1). The ESMP has been developed per the World Bank's Environmental and Social Framework as well as the national policies and regulations of Malawi such as the Environmental Management Act, the Employment Act, the Public Health Act, the Child Care, Protection and Justice Act, the Occupation Safety Health and Welfare Act, the Environmental Management Act, the Gender Equality Act and the Constitution of the Republic of Malawi which is the supreme law of the land. The objective of this ESMP is to identify, evaluate, and mitigate or enhance potential positive/negative environmental and social risks and impacts of the project per national social and environmental laws, the Environmental and Social Standards (ESSs) (including ESS1, ESS2, ESS3, ESS4, ESS6, ESS10), and the Environmental, Health, and Safety (EHS) guidelines.

Specifically, the ESMP aims to (i) assess and mitigate potential environmental and social risks and impacts of the proposed project; (ii) establish procedures for the environmental and social screening, review, approval, and implementation of activities; (iii) define roles, and

responsibilities, reporting procedures for managing environmental and social issues related to the activities; (iv) identify the staffing requirements, training, and capacity building needs for the successful implementation of the provisions of the ESMP; (v) address public consultation and disclosure of project documents as well as possible grievance redress mechanisms, (vi) establish the budget requirements for ESMP implementation (vii) promoting sustainable practices that can yield lasting benefits for both the environment and local communities.

This ESMP shall be read together with the Contractor's Environmental and Social Management Plan (CESMP) the Stakeholder Engagement Plan (SEP) and the Environmental, Social Commitment Plan (ESCP) developed for the SAVE project. Other specific plans (Appendix 3) will be part of the CESMP. These include the Labour Management Plan (LMP), Gender Violence Management Plan (GBVMP), Child Protection Management Plan (CPMP), and Traffic Management Plan (TMP). Workers Grievance Redress Mechanism (WGRM), Code of Conduct (CoC), COVID19 Construction Sites Prevention Guidelines, Labour Management Plan (LMP), Grievance Redress Mechanism (GRM), Waste Management Plan (WMP), and Occupational Health and Safety Management Plan (OHSMP).

2.0 PROJECT DESCRIPTION

2.1 Approach and Methodology to ESMP Development

To fulfil the objectives of the assignment, the consultant systematically went through several stages starting with the mobilization of resources, literature/document review, reconnaissance survey, inception report production, consultations, field surveys, impact assessment, stakeholder consultative meetings, and production of Environmental and Social Management Plan (ESMP) report. The ESMP process started with the Kick-Off meeting with LUANAR project officials to get a detailed understanding of the project. A quick reconnaissance survey was, after that conducted to collect preliminary baseline information, the spatial extent of the project boundaries, familiarization with the project's targeted locations, and refining methodologies. An inception report was produced which ensured mutual understanding of the consultant's plan of action and timelines for development of the ESMP. It also provided an additional guarantee of adherence to and interpretation of the Terms of References.

The main field survey focused on collecting physical, biological, and socio-economic baseline conditions of the project areas where proposed structures will be built and indirect impact areas from ancillary structures. The proposed project infrastructures' spatial data sets were reviewed and overlain on high-resolution satellite imagery to confirm the visual alignment of the planned subprojects against existing infrastructures on the ground in harmony with the primary data that was collected with the Global Positioning System (GPS). Various literature on the physiographic and geological setting of the Bunda area, including geological bulletin no. 26 of Lilongwe and Dowa area were reviewed to supplement detailed field observation on the project sites. More information on biophysical, socio-economic, and environmental aspects was collected through consultative meetings with local communities, members of the Lilongwe District Environment Sub-Committee (DESC), Students and Staff of Bunda, representatives from government ministries and Project Implementation Unit (PIU). The Government of Malawi through Lilongwe University of Agriculture and Natural Resources will coordinate project activities, including day-to-day implementation, coordination, supervision, and overall management of project activities.

2.2 Project Activities, Plan and Design

The project has four components: (1) Supporting Increased Access to Skills Development Programs in Higher Education, (2) Supporting Increase in Access to TEVET Skills Development, (3) Tertiary Education System Strengthening, Project Management, M&E, communications, and (4) Contingent Emergency Response Component. Under component one, the project will construct and enhance infrastructure that provides additional physical and virtual space for student enrolment through face-to-face (F2F), blended, and ODeL instruction, Communications. The project will construct a Food Processing Plant at Bunda College under Lilongwe University of Agriculture and Natural Resources (LUANAR). This ESMP is for construction of a Food Processing Plant at Bunda College, which has environmental and social impacts. This section outlines activities of the project including the detailed designs and architectural plans for the Food Processing Plant, which are attached to this report. The designs ensure the integration of environmental and social considerations such as energy efficiency, waste management and accessibility for persons with physical disabilities. The design will comply with both local and international standards. The foundation will consist of concrete footings (600mm x 200mm) with finished floor levels 150mm above the Natural Ground Level (NGL). Firewalls and doors will be included, and drainage systems will be installed by licensed plumbers. Waterproofing and damp proofing measures will be implemented, and habitable rooms will require 10% natural light. Stairs will meet safety regulations, and partitions and ceilings will be rodent-proof.

The plant will comprise 3 distinctive sections in one building, namely, the dairy processing plant section, the wet processing plant section and the dry processing plant section. The internal layout of these sections has a logical sequence of events from an inlet of materials to production/processing to the end products. The Food Processing Plant will include the following rooms/areas within the facility;

- Ablution block for gentlemen and ladies including shower rooms and change rooms for hygiene purposes. The females will have two water closets (WC) comprising 2 toilets with four wash-hand basins and a shower, one of the toilets will have disability accessories. The males will have one toilet which will be disability friendly, with three wash-hand basins, 4 bowl type Urinals and a shower.
- A quality Assurance Laboratory fully equipped to analyze end products. The processing lines have different streams in the lab.

- A fully equipped laboratory for food processing plants. The Lab can accommodate 35-40 students.
- A cold room for storage of raw materials or processed end food products.
- A conference room /meeting with a capacity of 30 people. two offices for Technicians of at least 12 square meters each, three 16 square-meter offices for Production Managers of the wet, dry and dairy processing plant sections, and two preparatory classrooms for students' briefing.
- The plant will also have the following ancillary structures: a 20-space car park for visitors, lecturers, students, and staff, a standby generator in case of power outages, a 30,000-litre Water Reservoir in case of water shortages, ventilation systems/services for some of the laboratory equipment, and a refuse collection bay.

The plant shall comply with Malawi Bureau of Standards (MBS) requirements. MBS will also need to guide how the facility will be developed. The user department will provide specifications of the equipment and the requirements for the Labs. This will determine the room sizes (in terms of height, flow of process etc.) in the processing plants. The layout of the facility should follow what was previously designed regarding this facility.

There will be no campsite on the construction site, but rather a site office. The project will use existing roads within the campus for access to the Food Processing Plant. The road connecting the new building to the existing road within the campus will be paved or tarred, but that will depend on what will be in the Bill of Quantities. The source of water will be pipe water from the Lilongwe Water Board (LWB). Energy will be sourced from the Electricity Supply Commission of Malawi (ESCOM) and solar. Other materials such as sand and quarry will be sourced from licensed sand mining sites and quarries from licensed quarry mining companies. During project implementation, the project site will not be evacuated. There will be no need to apply for mining licenses. However, an application will be made to ESCOM to connect power to the building once it is completed. The total estimated cost of the project is MKW4,000,000,000.00 of which MKW 97,650,000.00 is for ESMP implementation.

2.3 Description of Project Location and Size

2.3.1 Scope of the Project

The proposed project site of the Food Processing Plant is located within the Bunda College campus in Lilongwe district, central region of Malawi which is leased under Title Deed Plan Number

891/88 (Appendix 5). The site for the construction of the Food Processing Plant is an open space measuring 50 by 60 meters and located at Easting: 582995.52m E, Northing: 8431326.45m E/ -14.188040, 33.769408. The plant is proposed next to the LUANAR Business Centre (LBC) (Figure 1, Figure 2). The topographic map of the project site at a scale of 1:10,000 and 1:50,000 with the A3 format is attached in Appendix 6.

Figure 2-1: Location of the Food Processing Plant near LUANAR Business Centre

Figure 2-2: Site for the Proposed Food Processing Plant

2.3.2 The Biophysical Environment

At a broader scale of the campus, the underlying geology is typically metamorphic rock overlain by approximately 15 m of alluvial and loose deposits. Soils are described as being loam and sandy loam which are marginally suitable for agriculture with significant potential yields being over 75% of the maximum. Soils are slightly to moderately prone to erosion. Preliminary soil studies on the site have revealed three layers of soil within the area. The top layer of the profile is colluvium material, and its thickness ranges from 30 cm to about 200 cm. It consists of mainly silty to clay sand. Consistency is loose but increases to medium dense with depth. The second layer is that of residual soil. The thickness ranges between 80 cm and pockets of soft to medium hard rock boulders. Consistency is medium dense but increases to dense with depth.

The natural trees are dominated by Brachystegia species while the exotic vegetation comprises Maligna and Blued gum. However, the proposed construction site belongs to the Department of Crops is used for research hence there are no trees, although remnant shrubs and common grass

continue sprouting around the plot. Common types of fauna include rodents, (especially mice) grasshoppers and butterflies.

2.3.3 Social Environment

Bunda Campus hosts about 5578 out of which 3,000 are residents while the rest operate from outside the Campus. There are about 1200 members of staff working within Bunda Campus. The surrounding communities comprise three major adjacent villages including Mkwinda, Kamowa and Chilowa all in Traditional Authority Chadza.

Electricity in Bunda is supplied by Electricity Supply Commission of Malawi (ESCOM). It is worthwhile to highlight that in recent years, supply of electricity in Bunda and Malawi as a whole has been erratic with regular blackouts and load shedding. According to the welfare and Monitoring report of 2007 electricity connection is still very low in Malawi having increased from 6% to 8% nationwide between 2006 and 2007. The Bunda Forest Reserve has been one of the most important sources of energy. Villages around the campus and staff members access wood from the forest.

Water at Bunda is supplied by Lilongwe Water Board (LWB). Billable or metered consumption is lower than the production capacity hence high amount of unaccounted for water by the board. The main suspected causes of the water loss are leakages from cracks of dilapidated pipes and illegal connections/unmetred consumption within some parts of the town. While the neighboring communities consume water from the boreholes for drinking and shallow wells for other domestic purposes.

The area is accessible using Bunda College Road. Mini-buses and bicycles are the main mode of transport in the area. The town has Malawi Telecommunications Limited (MTL) lines and mobile phone service provider's networks and internet services.

While Bunda College is a service economic area. Agriculture forms the main economic activity of the surrounding villages. Maize crop production dominates the agricultural activities, followed by ground nuts, soybeans, and a few households practicing livestock production.

3.0 ENVIRONMENTAL AND SOCIAL POLICIES, REGULATIONS AND LAWS

This chapter outlines the relevant environmental legislation and policy framework that will guide the implementation of the Food Processing Plant. This Environmental and Social Management Plan (ESMP) has been developed per the national and international legislation as described in sections 3.1 and 3.3 respectively

3.1 Malawi Legal Framework

The Constitution of the Republic of Malawi (1994), provides a legal framework for non-discrimination. Sections 19-20 ensure equality and freedom from discrimination based on race, gender, colour, tribe, or place of origin. The Constitution also protects and guarantees human rights and freedoms, including the right to life, liberty, security, access to education, healthcare, and justice. Following the Malawi Constitution, this project promotes legal compliance, ethics, sustainability, and national values in building professionals. A detailed discussion about the relevance of the following policies and their corresponding Acts have been described in **Appendix 7** and their implication to the project activities is analyzed.

- Education Policy (2013)
- National Agriculture Policy (2016)
- The National HIV and AIDS Policy (2012)
- The Malawi National Occupational Safety and Health (OSH) -
- Environmental Policy (2004)
- National Biodiversity Strategy and Action Plan II (2015-2025)
- The Malawi National Land Policy (2002)
- The National SanitationPolicy (2008)
- The National Employment and Labour Policy (NELP)
- National Children's Policy (2019)
- The Malawi National Land Policy (2002)
- National Water Policy (2005)
- Local Government Act (1998) revised 2017
- National Construction Industry Policy (1996)
- Mines and Minerals Policy (2013)
- Mines and Mineral Act (2023)

The project will also trigger several Malawi Environmental standards which must be adhered to such as MS 714:2005 (Occupational Safety and Health Management Systems –

Specification); MS 719:2005 (Hazardous Waste – Management, Classification and Disposal – Code of Practice); MS 59:2002 (Solid waste – handling, transportation and disposal – code of practice); MS 730:2005 (Solid waste disposal sites, guidelines for design) ; (MS737-1-2021); (3rd Edition) Emissions Limits and MS173:2005 (Acoustics- Noise Pollution- Tolerance Limit) standards.

3.2 National Environmental and Social Assessment and Permitting

The process began with the screening exercise to identify potential environmental and social impacts of the project and determine the assessment type. A team of stakeholders screened the proposed project and Bunda College prepared an Environmental Assessment Checklist and submitted it to MEPA for review. MEPA recommended that there was a need for further assessment and preparation of an ESMP for the four projects. A consultant surveyed the site, gathered baseline biophysical & social information, and identified potential project-related impacts and their mitigation measures. Most of the impacts were low to moderate and mitigatable. Other certificates which may be required are the Workplace Registration Certificate and Development Planning Permission (Table 3-1). Application forms for some permits and certificates are attached in Appendix 8.

Table 2-1: Required certificates before project implementation

Certificate	Description	Reference	Issuing institution	Applicant
ESMP Approval Letter	Approval letter is granted after the submission of the final copy of the ESMP report	Environment Management Act, 2017 (Cap 60:02)	Malawi Environment Protection Authority (MEPA)	LUANAR
Workplace Registration Certificate	Every workplace is required to be registered and must commit to abide by all of the country's labour laws	Occupational Safety Health and Welfare Act (1997)	Ministry of Labour	Contractor
Development Planning permission	Approval of the design of the project	Physical Planning Act (2016)	Lilongwe District Planning Committee	LUANAR

3.3 World Bank Standards and Key Gaps with the National Framework

The project also invoked the World Bank's Environmental and Social Standards (ESSs), as well as the Environmental, Health and Safety Guidelines. The Consultant also considered the World Bank Environmental and Social Risks Summary (ESRS). Table 3-3 lists the applicable World Bank's ESS. The ESRS categorizes environmental and social risks as follows; High Risk (HR), Substantial Risk (SR), Moderate Risk (MR) and Low Risk (LR). The categorization is based on potential impacts on ecosystems, human health, scale of harm, likelihood of accidents, displacement, labour rights, community health, stakeholder engagement and effectiveness of mitigation measures. The Environmental & Social Risk Category for this project is Moderate Risk (MR) because the risks and impacts are mitigated.

Table 2-2: Relevant World Bank ESS and Key Gaps with the National Framework

E & S Standard	**Relevance to the construction of four subprojects at Bunda**
ESS1 - Assesses environmental and social risks	It sets out the Borrower's responsibilities for assessing, managing and monitoring environmental and social risks and associated impacts. There is no requirement for project ESMF in the Environmental in the Management Act (2017) & EIA Guidelines (1997) to guide the preparation of the ESMP. This gap has been resolved through the inclusion of the ESMF for the SAVE project. This ESS is implicated because the project triggers environmental and social risks including pollution, increased waste, increased, water & energy demand, disruption etc.
ESS2 - Promotes workers' rights & fair labour practices	ESS 2 recognizes the importance of employment creation and income generation while protecting workers' rights and promoting safe and healthy working conditions throughout project implementation. It guides projects to manage labour and working conditions in a way that protects workers. Furthermore, it ensures compliance with national labour laws and international standards. Labour Management Plan (LMP) or Procedures are not provided for in the national legislation such as Employment Act (2000); Labour Relations Act (1996) and Occupational Safety, Health & Welfare Act, (1997). ESS2 is implicated because the project will employ skilled and unskilled workers of different gender groups who need to be managed. A LMP has been developed for the project.
ESS3 – Resource Efficiency and Pollution	ESS3 recognizes that economic activity and urbanization often generate pollution to air, water, and land. This focuses on the sustainable use of resources and the prevention, minimization, and management of pollution in projects. It requires projects to assess their resource use and pollution risks, implement appropriate

E & S Standard	Relevance to the construction of four subprojects at Bunda
Prevention Management	mitigation measures, and monitor environmental performance. It encourages the project to practice a circular economy (reduce, reuse, recycle), to reduce project ecological footprint, promote sustainability, and protect natural resources. The Environment Management Act (2017), and Environmental Management (Waste Management and Sanitation) Regulations, (2008) mostly focus on pollution prevention and not on resource efficiency. ESS3 is relevant to the project because both liquid and solid will be produced at the Food Processing Plant which could lead to pollution of the environment. The gap will be filled by following provisions of ESS3 on resource efficiency including encouraging reducing recycling, re-using waste and developing a waste management plan.
ESS4 - Prioritizes community health and safety	This addresses the health, safety, and security risks and impacts on project-affected communities. Although the Community Health and Safety (CHS) is not emphasized in the Occupational Safety, Health and Welfare Act, (1997), this ESS is implicated because potential risks and impacts on communities are anticipated. The construction of the plant will attract an influx of people into the project area as project workers and vendors interact with each other including students and staff of the college
ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant because some vegetation and its fauna at the Food Processing Plant will be removed. The standard recognizes that protecting and conserving biodiversity and sustainably managing living natural resources are fundamental to sustainable development. This conforms to the national requirements. This ESS is implicated in a small negative way in that some vegetation will be cleared at the project site.
ESS10 - Ensures stakeholder engagement, transparency and accountability are identified	This is relevant in that there will be a need to engage with stakeholders at all levels regarding how they may affect or get affected by the project. It recognizes the importance of open and transparent engagement between the Borrower and project stakeholders. Guidelines for EIA (1997), National Decentralization Policy (Second Edition 2024) and the Local Government Act (1998) have no provisions for the development of the Stakeholder Engagement Plan (SEP) and Grievance Redress Mechanism (GRM). The contractor will develop a SEP and GRM for the workers and strengthen the existing GRM at Natural Resources College. Other gaps associated with implementation phase of the project include limited capacity and weak institutional framework which sometimes can hinder compliance with environment, social and procurement requirements.

3.3.1 World Bank EHS Guidelines

Environmental, Health and Safety (EHS) Guidelines for Food and Beverage Processing are World Bank's blueprint for environmental protection, workers' health and safety, community health and safety, and risk management and regulatory compliance. In detail, their importance includes provide a technical reference that provides examples of Good International Industry Practice

(GIIP) applicable to a project like the proposed Food Processing Project at Bunda. The guidelines cover the management of water use and wastewater discharge. They also inform the minimization of solid waste from raw materials and by-products. The guidelines further provide for the safe handling and storage of food-grade chemicals as well as the prevention of cross-contamination in processing facilities.

These guidelines are the World Bank's blueprint for environmental protection, workers' health and safety, community health and safety, as well as risk management and regulatory compliance. In detail, their importance includes: the World Bank EHS Guidelines for Food and Beverage Processing, businesses can ensure safe working conditions, environmental protection, and sustainable resource use, leading to compliance with international standards and improved operational efficiency.

- **Environmental Protection:** The guidelines provide realistic measures for preventing pollution, addressing climate change, conserving biodiversity, reducing water consumption through efficient cleaning practices (e.g., dry cleaning before wet washing).
- **Air Emissions & Ambient Air Quality**: Control particulate matter (PM), odors, and volatile organic compounds (VOCs) through proper ventilation and filtration, install cyclones, bag filters, or scrubbers to minimize dust and airborne contaminants. And optimize combustion processes to reduce emissions of nitrogen oxides (NOx) and sulfur oxides (SOx).
- **Waste Management and Circular Economy**: Segregate and properly dispose of organic and non-organic waste to prevent contamination. Convert organic waste into biogas or compost for sustainable use. And minimize packaging waste by using biodegradable or recyclable materials.
- **Occupational Health & Safety (OHS):** The guidelines ensure that projects prevent occupational hazards and promote safe working conditions, including Workers Safety and Hygiene, Machinery & Equipment Safety and Fire & Explosion Prevention
- **Resource Efficiency & Sustainable Practices**: Optimize energy use through efficient boilers, refrigeration systems, and LED lighting. Use renewable energy sources (e.g., solar or biogas) where possible. Implement lean production techniques to minimise resource waste.
- **Community Health and Safety:** The guidelines protect vulnerable communities and community well-being through controlling noise pollution to protect nearby communities, prevent traffic-related accidents by enforcing transport safety protocols and ensure that food and beverage products meet safety standards before distribution
- **Risk Management and Regulatory Compliance:** The EHS guidelines are key in identifying and mitigating risks and adhering to relevant regulations and standards.

The description affirms the relevance of the EHS guidelines as a framework that projects must employ to minimize harm, maximize benefits and ensure sustainable development and environmental protection.

4.0 POTENTIAL ENVIRONMENTAL AND SOCIAL RISK IMPACTS AND STANDARD MITIGATION MEASURES

The construction and operation of the Food Processing Plant will generate different impacts. This section of the ESMP will present relevant subproject activities, including civil works and procurement of goods and services for the proposed project that may have environmental and social risks and impacts. The risks and impacts are based on the impacts of the activities on the existing baseline conditions. The impacts identified were rated from very large negative to very large positive impacts (Appendix 9). The overall analysis of impacts using the three-step procedure is based on standard environmental assessment approaches described in more detail in Appendix 9. The advantage of this method is that is simple and allows for a systematic approach to impact assessment.

Environmental impacts are a combination of location and the characteristics of a given project. In keeping with this understanding, the environmental impact assessment is conducted according to a **"3-step methodology"** which is based on the following three steps: **Step 1,** involves the description of the baseline situation and where possible ascribing a value to the project area (s) according to a set of criteria (presence of rare species, human disturbance etc.). **Step 2** assesses the magnitude of project impacts according to another set of criteria (duration, extent, reversibility etc.). Finally, **Step 3** gives the magnitude of impact combined with value to arrive at an impact assessment.

The Environmental and Social Risks, Mitigation Measures, Responsible entities and proposed costs are presented in Table 4-1. Monitoring of mitigation measures will be done quarterly (every 3 months). Apart from other reference documents, the plan refers the World Bank's Environmental, Health, and Safety General Guidelines (EHS) (http://documents.worldbank.org/curated/en/157871484635724258/Environmental-health-and-safety-general-guidelines) the EHS guidelines have also been referred to for mitigation measures.

Table 4-1: Environmental and Social and Mitigation/Enhancement Measures

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
Impacts from the planning and design phase										
Positive impacts										
Positive impact										
	Increased job creation of	Prioritise of contracts to eligible local Consultants	Number of consultants engaged	Contracts given to Environmental Consultants and Architect	Consultant reports	Lilongwe DESC	Zomba Labour Office	Planning & Design phase	NA	NA
		Ensure that the contractors are in line with Malawi labour laws of Malawi.	Contractor adherence to Malawi Labour Laws	Project fully Compiled with Malawi labour laws	Monthly progress reports	Contractor	Labour office	Planning and Design phase	NA	200,000.00
		Employ qualified professionals to do preparatory technical works.	Qualified Professionals Perform 100% of Preparatory Technical Tasks.	Technical employees	Monthly progress reports	Labour office	Labour office	Planning and Design phase	300,000.00	300,000.00
Negative impacts										
	Loss of land for farming	Allocate alternative land for farming to crops department	Availability of land	Hectarage of land	Phyiscal inspection	BUNDA	BUNDA IIT	Planning and Design phase	NA	NA

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
	Increased anxiety amongst staff and students about disruption of teaching and learning activities at the University	Conduct awareness and sensitization initiatives to inform all affected groups such as lecturers, students, and surrounding communities about the project.	Number of queries recorded	No complaints/queries	Records of complaints	The University GRM, Contractor GRM and Community GRM	Lilongwe District Council and the developer	Planning and design phase	2,000,000.00	800,000.00
CONSTRUCTION PHASE										
Positive impacts										
	Increased job creation of	Employ more people from the project area	• No, of unskilled labourers from project area;	90 % of unskilled labourers from project area;	Site Recruitment records	Contractor	Labour Office	Construction Phase	NA	500,000.00
		Give women equal employment opportunities as men by ensuring that at least 40% of the employees should be women.	No. of women employed	40% of the labourers force is women	Site Recruitment records	Contractor	Labour office	Whole project	NA	300,000.00

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
	Increased business activities within the project area	Give preference to suppliers from the project areas to provide goods and services to the project	Inventory of local materials from the project area & immediate surroundings	50 % of local materials from the project area	Records of locally purchased goods	Contractor	District Trade Office and Labour office	Whole project	1,600,000.00	700,000.00
	Increased transfer of new skills to Local Communities	Provide Workers with Reference Letters Upon Successful Contract Completion	Percentage of workers receiving reference letters upon contract completion.	All workers	Random inspection	Contractor	Lilongwe labour office	Whole project	2,000,000.00	NA
		Implement a comprehensive, structured training program to enhance the technical skills and knowledge of local workers in construction-related activities, aligning with industry standards and best practices.	Number of structured training programs for local workers in construction related skills	All workers	Random inspection	Contractor	Lilongwe labour office	Whole project	NA	400,000.00
	Improved standard of living/social standards	Timely payment of wages in accordance with government stipulated rates.	Availability of payment records	All workers	Review of payment records	Contractor	Lilongwe labour office and BUNDA	Construction phase	Part of project cost	375,000.00
Negative impacts										

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
	increased air pollution	Maintain road moisture during dry and windy periods. Ensure overall road conditions remain optimal	Good condition roads	All vehicles carrying construction material	Conduct regular, unannounced site inspections.	Contractor	Developer, MEPA and Lilongwe district health and social welfare office	Construction Phase and operation phase	500,000.00	100,000.00
		Secure truck loads with tarps to prevent dust dispersion.	Transported dust are covered	All vehicles carrying construction material	Conduct regular, unannounced site inspections	Contractor	. Developer and MEPA	Construction Phase and operation phase	500,000.00	100,000.00
		Designate optimal traffic routes and establish speed limits on unpaved roads to minimize dust generation.	Presence of speed limits along the roads	All vehicles carrying construction material	Conduct regular, unannounced site inspections.	Contractor	Developer, Lilongwe district public works office	Construction Phase and operation phase	500,000.00	100,000.00
		Stockpile materials to prevent dust blow.	Presence of site stockpile	100 % of stockpiles of fine materials	Conduct regular, unannounced site inspections.	Contractor	MEPA, PIU, Developer and Lilongwe district public works office	Construction Phase and operation phase	150,000.00	100,000.00
		Use equipment and vehicles in appropriate technical conditions. Provide emissions	Number of serviced vehicles	All vehicles used	Conduct regular, unannounced site inspections.	Contractor	MEPA, PIU, Developer and Lilongwe district public works office	Construction Phase and operation phase	350,000.00	100,000.00

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
		control equipment where applicable (e.g. filters).								
		Switch off all vehicles and equipment when not in use.	Engines switched off	All vehicles carrying construction material	No noise from engines/vehicles and conduct regular, unannounced site inspections.	Contractor	Developer	Construction Phase and operation phase	N/A	100,000.00
	Increased risk of child labour	Employ adults only as per labour laws requirements	Age groups of project workers	Zero percent child employed	Inspection reports	Contractor	Ministry of Labour, DESC, Bunda	Construction and Operational	NA	375,000.00
		• Conduct sensitisation to the surrounding community	Number of sensitisation meetings	4 meetings	Review of sensitisation records	Contractor	DLO BUNDA	Construction phase	Part of project cost	
		• Use of National Identity Cards during employment	Availability of employment records	All workers	Review of employment records	Contractor	DLO BUNDA	Construction phase	Part of project cost	
	Increased risk of soil and groundwater contamination	Implement effective waste management: collect, separate, and store waste in accordance with legal standards.	Waste collection areas existent, waste inventories	Site affected soils	Random site inspection, Review of waste inventories	Contractor	Lilongwe district health and social welfare office	Whole project	NA	200,000.00

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
	(Environmental spills and best practice soil handling)	Install rapid spill response and remediation of contaminated sites following construction activities.	Response Plan in place	Site affected solid waste	Random site inspection	Contactor and PIU	Lilongwe district health and social welfare office, PIU and Lilongwe public works office	Construction phase	NA	
		Implement appropriate containment and disposal of construction Wastewater, including sanitary water (including the construction of female and male toilets).	Water disposal compliant with applicable legal requirements Including presence of toilets	Site liquid waste containment including presence of 2 toilets	Random site inspection	Contractor	Developer, and Lilongwe district health and social welfare office.	Whole project	Inclusive	100,000.00
		Protect and reserve removed topsoil for backfilling and restoration purposes	Topsoil stored and reused	Site solid waste	Random site inspection	Contractor	Developer, and Lilongwe district health and social welfare office.	Construction phase	NA	100,000.00
		Limit stockpile height to 2 m maximum to avoid soil Compensation	Stockpile height limited	Site solid waste	Random site inspection	Contractor and PIU	Developer, PIU and Lilongwe district health and social welfare office	Construction phase	NA	150,000.00
	Increased vegetation removal and	Limit vegetation clearing to areas within	Minimal vegetation clearing and	All proposed project sites	Site visitation before	Contractor	Lilongwe district environmenta	Construction phase	NA	200,000.00

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
	habitat disturbance (Flora and Fauna)	the site boundary where necessary.	area of ecological value avoided		the kickoff of the project implementation		l office and ecological office			
	Increased noise pollution	Restrict operating hours for specific equipment and operations	No work conducted between restricted time/ Grievance Mechanism	All on-site project activities	Random site inspection, Review of filed grievances, review of timesheets of workers	Contractor	Developer, Lilongwe social welfare office	Construction Phase	NA	100,000.00
		Inform residents beforehand, via notices and local leaders of pending noisy periods and solicit their tolerance well before the commencement of works	No complaints from local people through project reports	Local leaders	Involve local leaders in every stage of the project	Developer, Lilongwe district council and local leaders	Developer, Local leaders Lilongwe District Council	Throughout the project	NA	100,000.00
		Provide ear protection materials to project workers	Protective hearing equipment used.	All project site workers	Random site inspection	Contractor	Lilongwe district health and social welfare office and PIU	Construction phase	NA	300,000.00
		Implement advanced technologies and limit concurrent machine	Technical Specification Sheet	Project equipment's	Spot checks, Review of filed grievances	Contractor	Lilongwe public works office, PIU and Lilongwe district	Construction phase	NA	150,000.00

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
		operations to reduce emissions.					environmental office			
		Establish and enforce traffic speed limits, monitoring driver compliance.	The presence of road speed limit signs and Driver Training Records as part of Induction training	All roads leading to the project site and all site drivers	Random site inspection	Contractor and developer	Lilongwe district public works, Mitundu police station and Developer	Construction phase	NA	100,000.00
		Service vehicles regularly	Good vehicle maintenance	All vehicles	Random site inspection	Contractor	Lilongwe district public works	Construction phase	NA	150,000.00
		Select vehicle routes which will cause minimal disturbance to or avoid settlements where possible.	The safest routes selected and Grievance Mechanism	Project site	Review of traffic routes, Review of filed grievances	Contractor	Mitundu road traffic officers	Construction phase	NA	100,000.00
	Increased risk ofSpread of HIV and other STIs	Apply the HIV and AIDs policy.	Number of HIV and AIDS cases reported	Zero new cases of HIV and AIDS	Random site inspection	Contractor Ministry of	Lilongwe District Health and Social Welfare Office	Construction Phase	2,000,000	1,000,000

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
		Raise awareness among employees and the community on HIV, AIDS, and STI risks and prevention methods, including abstinence.	Number of other STIs cases reported to nearby hospitals	Zero new cases of HIV and AIDS	Monthly medical reports from nearby hospitals	Bunda DESC, Local leaders	Bunda DESC, Lilongwe District Health and Social Welfare Office	Whole project	7000,000.00	500,000.00
		Place condoms in all toilets	Number of other STIs cases reported to nearby hospitals	Zero new cases of HIV and other STIs	Monthly medical reports from nearby hospitals	Bunda DESC, Local leaders	Bunda DESC, Lilongwe District Health and Social Welfare Office	Whole project	1,000,000.00	500,000.00
	Increased risk of accidents and injury for workers, students, staff and communities	Apply the Occupational Health and Safety Management plan. Sensitise workers and surrounding communities about the existence of the plan,	Number of accidents and injuries	Workers, Students and college staff	Review accident and Injury records; interview construction workers	Contractor	Bunda DESC and Lilongwe district health and social welfare office	Construction Phase	300,000.00	500,000.00
		Provide construction workers with appropriate Personal Protective Equipment (PPE)	Number of workers wearing PPEs	All people at a site	Random site inspection	Contractor	Bunda DESC and Lilongwe district health and social	Construction phase	500,000.00	400,000.00

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
							welfare office			
		Conduct monthly road safety awareness campaigns with learners and staff	Number of monthly campaigns	All people at a site	Review monthly campaign reports	Contractor	Bunda DESC and Lilongwe district health and social welfare office	Construction phase	100,000.00	400,000.00
		Observe speed limits - 20 km/hour speed limit on school campus.	Number of spot checks on the site	All workers at a site	Spot-checks	Contractor	Bunda DESC	Construction phase	150,000.00	400,000.00
		Introduce speed limits in strategic areas E.g. install visible warning/informative signs in strategic areas, install humps and Implement Traffic Management Plan	Presence of road and speed limit signs	All roads leading to the site	Random inspection to see if the roads have visible sign posts of speed limits and physical structures like humps	Contractor	Mitundu traffic control office	Construction phase	100,000.00	500,000.00

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
		Provide site hoarding to the construction site	Availability of site hoarding	100%	Visual Inspection	Contractor	DLO EDO	Construction phase	Part of project cost	
	Increased risk of accidents and injury for workers through Working in Trenches	Cut trench walls at an appropriate angle to reduce the risk of soil collapse	Trenches with angles	100%	Visual inspection	contractor	EDO, PIU	Construction phase	Part of project cost	NA
		Use protective trench boxes to prevent workers from being buried in case of collapse.	Trench boxes in all the trenches	100%	Inspection	contractor	EDO,PIU	Construction phase	Part of the project cost	Inclunsive
		Train workers on trench hazards and safety procedures.	Number of workers to be trained	All	Inspection	Contractors	EDO, PIU	Construction phase	Inclusive	inclusive
		Provide proper PPEs	Number of workers with PPEs	All	Visual inspection	Contractors	EDO	Construction phase	Inclusive	inclusive
		Provide ladders, steps, or ramps at least every	Presence of ladders in	In every 7.5 metres	Visual inspection	Contractors	EDO	Construction phase	Inclusive	inclusive

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
		7.5 meters (25 feet) for safe entry and exit.	every 7.5meters							
		Use pumps to remove accumulated water and prevent instability.	No water in the trenches	0%	Visual inspection	Contractors	EDO	Construction phase	Inclusive	inclusive
		Install barriers to prevent runoff water from entering the trench.	Presence of barrier	Around the trench	Visual inspection	Contractors	EDO	Construction phase	Inclusive	inclusive
		Ensure proper communication between equipment operators and ground workers.	Presence of work conduct and communication strategy	All the time	Visual inspection	Contractors	EDO	Construction phase	Inclusive	inclusive
		Keep first aid kits and emergency equipment readily available	Presence of first aid kit	All the time	Visual inspection	Contractors	EDO	Construction phase	Inclusive	inclusive
	Increased Energy demands	Install solar energy systems (e.g., photovoltaic panels) to offset electricity demands	Installation of solar	A solar system installed	Availability of the solar	Contractor/ Bunda College	Lilongwe DESC/PIU	Construction/operation	Inclusive	Inclusive
		Promote energy-saving behaviours among employees or users (e.g., turning off unused equipment, adjusting thermostat settings, using natural light).	Promotion meeting	4	Meeting reports	Contractor/ Bunda College	Lilongwe DESC/Bunda College /PIU	Construction/operation	Inclusive	Inclusive

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
		Leverage data analytics to consistently track energy performance and pinpoint opportunities for further optimization and enhancement.	Presence of monitoring reports	Quarterly reports	Reports	Contractor /Bunda College	Lilongwe DESC/ PIU	Construction/operation	Inclusive	Inclusive
	Increased water demands	Promote water reuse/recycling and installation of water-conserving taps	The presence of water-conserving taps and % of recycled water	All taps should be water-conserving 50 of the water recycled	Monitoring report	Contractor /Bunda College	Lilongwe DESC	Construction and operation	Inclusive	Inclusive
	Increased risk of soil erosion	Plant 10 trees to replace every tree cut	Number of trees planted	All trees replaced	Monitoring	contractor	Lilongwe DESC	Construction Phase	Inclusive	Inclusive
		Re-cover exposed soils with grass and other ground cover as soon as possible;	% of land covered by grass	100% of exposed land	Monitoring reports	Contractor	Lilongwe DESC/ PIU	Construction phase	Inclusive	Inclusive
		Level the project site to reduce soil erosion	Levelling of the excavated soil	All excavated areas	Monitoring	Contractor	Lilongwe DESC	Construction Phase	Inclusive	Inclusive
		Stockpile construction material away from any surface drainage channels and features	The distance of stockpile material to drainage channels	50m	Monitoring	Contractor	Lilongwe DESC	Construction	Inclusive	Inclusive

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
		Place low bumps around the piles of sand;	Presence of bumps	All sand piles	Monitoring	Contractor	Lilongwe DESC	Construction phase	Inclusive	Inclusive
		Create stone pitching where soils have been excavated. Clear areas which will not be affected by the project.	Absence of exposed soil surfaces around the project area.	Zero areas exposed to soil erosion.	Site inspection records	Contractor and Bunda	Lilongwe District Forestry Department and Developer	Construction phase	500,000	1,000,000
	Increased disruption of teaching and learning Activities at the University	Sensitise college staff and students about the project	Sensitization meetings and notices	No/little disruption to classes	Random inspection	Contractor	Lilongwe DESC and District social welfare	Construction Phase	NA	900,000.00
		Minimise the use of heavy machinery during class time	Number of running heavy machinery	All heavy machinery	Random site inspection	Contractor	Developer and PIU	Construction phase	NA	350,000.00
		Install site screens to minimize disruptions and secure construction areas.	Percentage of construction sites with erected screens to mitigate disturbances	No/little disruption to classes	Number of noise complaints cases and Random site inspections	Contactor	Developer, PIU and Contractor	Construction phase	NA	300,00.00
		Instruct / Advise workers not to make noise.	Minimum and maximum level of noise at the site	All workers	Number of noise complaints cases and Random	Contractor	Developer, Contractor and PIU	Construction phase	NA	400,000.00

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
					site inspection					
		Use of separate entrance and exit points from those being used by the current learning activities	Create a separate Entrance/Exit routes for workers and students	All workers and Students	Annually site inspection	Contactor and developer	PIU, Ministry of Education and Students	Construction phase	NA	1,200,000.00
	Increased risk in Gender-based Violence (GBV) and Sexual Exploitation and Abuse (SEA)	Orient workers on the GBV issue and sexual harassment issues	Incidences of gender-based violence and SEA involving workers recorded	Zero reports on GBV and SEA	Reports of GBV and SEA incidents	Contractor	Lilongwe district social welfare	Whole project	900,000	2,000,000
		Request all Workers to Sign the Project Code of Conduct	Percentage of workers who have signed the project's code of conduct.	Zero reports on SEA	Reports of SEA incidents	Contactor and developer	Lilongwe district social welfare and Lilongwe labour office	Whole project	NA	1,000,000.00
		Implement a zero-tolerance on GBV and SEA as per Contractors Code of Conduct	Incidences of gender-based violence and SEA involving workers recorded	Zero reports on GBV and SEA	Reports of GBV and SEA incidents	Contactor and developer	GRM committees, Mitundu police office and developer	Construction phase	NA	500,000.00
		Conduct Joint Awareness Campaigns with	Number of sexual exploitation	Incidences of gender-based violence and	Random inspection	Contractor	Lilongwe Social	Construction phase	NA	400,000.0

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
		the District Gender, Children, and Social Welfare Office and Police Department to Prevent SEA	and abuse awareness campaigns conducted in the project area with coordination from district offices, police and developer	SEA involving workers recorded	once per month		Welfare office			
		Dismiss any worker engaged in GBV, and SEA and Support victims of all Gender-based violence	Incidences of gender-based violence and SEA involving workers recorded	Incidences of gender-based violence and SEA involving workers recorded	Random inspection once per month	Contractor	Lilongwe social welfare	Construction phase	NA	400,000.00
	Increased risk of theft of project equipment	Strengthen community policing in conjunction with Mitundu police station.	Zero theft of project materials	All projects' materials	Records of theft cases and List of guards' present	Bundle DESC and Contractor	Mitundu police station in coordination with nearby Community Police	Construction Phase	1,000,000	1,500,000
		Conduct sensitization meetings with learners and community members against	Number of sensitization meetings	At least one in every month	Review all sensitization reports	Bunda DESC and Contactor	Bunda DESC, Mitundu police office in	Construction phase	1,000,000.00	1,000,000.00

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
		vandalism of project material					coordination with community policing			
		Utilize the use of GRM to receive tips from those stealing construction materials	Availability of project GRM and theft reports	Whole project	Records of theft cases and List of guards' present	Developer and contractor	Developer, Mitundu police office in coordination with community policing	Whole project	600,000.00	800,000.00
		Stakeholder engagement								
	Disruptionof utilities e.g. water	• Give prior notice before conducting works that may disrupt the utilities	Availability of written notice	Utility companies	Records of warning	Contractor	MEPA BUNDA	Construction phase	NA	NA
	Increased chemical pollution	• Use chemicals approved by Pesticide Control Board to treat the foundations for termites; and	Availability of approved chemicals	100%	Physical inspection	Contractor	Pesticides Control Board MEPA	Construction phase	Part of project cost	375,000.00

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
		• Procure already treated timber to use for trusses.	Availability of treated timber	100%	Physical inspection	Contractor	BUNDA	Construction phase	Part of project cost	NA
	Increased incidences of diseases	• Conduct sensitisation on the spread of diseases;	Number of sensitisation meetings	4 meetings	Review of sensitisation records	Contractor	DEHO	Construction phase	Part of project cost	450,000.00
		• Provide hand washing facilities;	Availability of hand washing facilities	2 hand washing facilities	Visual inspection	Contractor	DEHO BUNDA	Construction phase	Part of project cost	NA
		• Put in place waste receptacles at strategic points; and	Number of waste receptacles	4 waste receptacles	Visual inspection	Contractor	DEHO BUNDA	Construction phase	Part of project cost	NA
		• Priority should be given to locals for unskilled work force.	Number of locals employed	85%	Review of employment records	Contractor	DLO BUNDA	Construction phase	Part of project cost	375,000.00
	Introduction of alien plants and animals	• Clean the equipment and machinery before transferring to the proposed	State of the machinery	100%	Physical Inspection	Contractor	EDO BUNDA	Construction phase	Part of project cost	250,000.00

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
		project area; and								
		• Screen all the workers before starting working.	Availability of screening records	All workers	Review of screening records	Contractor	DLO BUNDA	Construction phase	Part of project cost	375,000.00
	Interference of marriages	• Conduct sensitisations; and	Number of sensitisation meetings	4 meetings	Review of sensitisation records	Contractor	DSWO BUNDA	Construction phase	Part of project cost	375,000.00
		• Develop and implementing of Code of Conduct and ensuring all workers sign it.	Availability of code of conduct	1 copy of COC	Review of COC	Contractor	EDO BUNDA	Construction phase	Part of project cost	250,000.00
	Disturbilisation of river banks	• Collect sand from recommended sites as advised by the local authority.	State of the area where sand is collected	NA	Visual Inspection	Contractor	EDO BUNDA	Construction phase	Part of project cost	375,000.00

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
		• Facilitate progressive river bank rehabilitation;	Area of river bank rehabilitated	100%	Visual Inspection	Contractor	EDO BUNDA	Construction phase	Part of project cost	
		• Provide proper drainage channels;	Availability of drainage channels	NA	Physical Inspection	Contractor	EDO BUNDA	Construction phase	Part of project cost	
		• Provide sediment control measures such as check dams and berms;	Available of check dams and berms	NA	Physical Inspection	Contractor	EDO BUNDA	Construction phase	Part of project cost	
	Creation of borrow pits	• Ensure progressive rehabilitation of borrow- pits and use rubble to backfill pits where possible;	State of the borrow pit area	100%	Physical Inspection	Contractor	EDO BUNDA	Construction phase	Part of project cost	375,000.00
		• Provide proper drainage channels	Availability of drainage channels	NA	Physical Inspection	Contractor	EDO BUNDA	Construction phase	Part of project cost	

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
		• Provide sediment control measures such as check dams and berms;	Available of check dams and berms	NA	Physical Inspection	Contractor	EDO BUNDA	Construction phase	Part of project cost	
	Risk of population influx	Employment of people people surrounding the project area	Number of locals employed	85%	Review of employment records	Contractor	EDO DLO BUNDA	Construction phase	Part of project cost	375,000.00
	Disruption of important pathways	Provide alternative routes ; and	Availability of alternative routes	NA	Physical Inspection	Contractor	EDO BUNDA	Construction phase	Part of project cost	375,000.00
		• Provide traffic controls and install speed limit signage	Availability of traffic controls and install speed limit signage	NA	Visual Inspection	Contractor	EDO DLO BUNDA	Construction phase	Part of project cost	
	Increase in school drop out	• Conduct sensitisation to the students most especially female students and surrounding community	Number of sensitisation meetings	4 meetings	Review of sensitisation records	Contractor	DEYS BUNDA	Construction phase	Part of project cost	375,000.00

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
	Increased risk of waste generation	Prepare a site waste management plan before the commencement of construction activities. Designate appropriate waste storage areas, collection and removal schedule, identification of approved disposal site, and a system for supervision and monitoring.	Good condition of the project site and the Presence of Bins	All project site waste	Random site inspection	Contractor	Developer, Contractor and Lilongwe district health office	Whole project	1,000,000	2,000,000
		Not burning any vegetation and combustible waste on the site.	No vegetation and combustible waste burned on the site.	All project site vegetation	Records of waste disposal program	Contractor	Lilongwe district environmental and health office	Whole project	NA	200,000.00
		Implement a site waste management plan under the supervision of the independent monitor	Level of compliance with the implementation of the waste management plan	All waste	Monthly progress reports	Contractor	Lilongwe district environmental and health office	Throughout the project	NA	300,000.00
DEMOBILISATION AFTER COMPLETION OF CONSTRUCTION WORKS										

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
Positive impacts										
	Reduced dust emissions	Implement Post-Construction Landscaping to Minimize Dust Emissions	Area landscaped	100 % of the project area landscape with either vegetation or paved with concrete bricks or bitumen	Record of the area landscaped and site inspection at the end of the project	Contractor	Lilongwe environmental and forest officer	Demobilization Phase	1.000,000	500,000
		Consider biophilic design principles to establish a tangible connection to the natural environment through direct and Indirect natural influences.	Presence of biophilic designs	100% of project site	Random inspection at during demobilization phase	Contractor	Developer	Demobilization phase	1,000,000.0	NA
	Reduced noise pollution	Contractor to remove all working and damaged construction equipment from the construction site	Noise levels	Zero noise levels from project site	Records of incidences of noise levels recorded	Contractor	Lilongwe DESC and developer	Demobilization Phase	1,000,000	700,000.00
Negative Impacts										
	reduced job opportunities	Pay severance benefits to all laid-off workers according to Malawi labour laws.	Number of workers laid off	All workers and community	Site inspection during this phase	Contractor	Lilongwe labour office	Demobilization Phase	500,000	1,000,000.00

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
					and interview the workers					
		Pay workers all their dues to minimise wages disputes after termination of employment.	Total workers receiving their entitlements	All workers	Interview the workers	Contractor	Lilongwe labour office	Demobilization phase	NA	300,000.00
		Provide workers with adequate notice of termination of employment.	Notice termination	All workers			Lilongwe labour office	Demobilization phase	NA	300,000.00
	Increased risk of loss of business opportunities & income	Sensitise local traders on the project duration at the start and end of the construction works for them to plan properly.	Number businesses lost and notice of closure construction activities	Workers to get notice in good time about end of their contracts Sensitization meeting about	Record of sensitization meetings and notices issued to end construction activities	Contractor DCE	Ministry of Trade - Zomba	Demobilization Phase	500,000	1.000,000
		Pay for all remaining balances from materials that were obtained on loan in time	Zero negative balance with the local business owner	All business man	Random interview with businessmen	Contractor	Developer and Lilongwe district social welfare	Demobilization phase	NA	400,000.00

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
	Decreased scenic beauty due to construction waste materials & campsite or temporary sanitary facilities	Scrap metals will have to be sold or disposed of at appropriate designated dumping sites	Clean surroundings	All available scrap	Random site inspection to see if the site is clean.	Contractor	Lilongwe DESC	Demobilization Phase	900,000.00	700,000.00
		Appropriate mitigation measure for sanitary facilities	Clean surroundings	All sanitary facilities	Random site inspection to see if the site is clean.	Contractor	Lilongwe DESC	Demobilization phase	NA	NA
OPERATIONAL PHASE										
Positive Impacts										
	Increased job opportunity	Give equal employment opportunity to both males and females; sounding communities should be considered where possible	Percentage of men and women employed	Skilled and unskilled Malawians	Records of new staff employed	Ministry of Education	Ministry of Labour	Operational Phase	500,000	1.000.000
		Provide more opportunity to qualifies Malawians for both academic and non-academic members	Percentage of qualified Malawians employed	100% qualified staff employed	Records of new staff employed	Minister of Education	Ministry of Labour	Operation phase	NA	NA
	Increased and improved	Provide the necessary equipment to facilitate teaching and learning.	Number of required equipment	Each cohort	Records of infrastructu	Developer	Ministry of Education	Operational Phase	NA	NA

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
	modern learning facility		provided for teaching and learning needs		re and equipment					
		Source funds for maintenance so that all infrastructures should be in good condition and be in operation for a long time	Use of the facility by students and staff	100 % infrastructure and equipment usage	Random monitoring the infrastructures	Developer	Ministry of Education	Operation phase	1,000,000.00	NA
		Morden infrastructural materials e.g. Sound proofing should be considered in rooms to avoid disruption from next rooms	Assessment of sound levels in all rooms	All infrastructures	University reports	Developer	Ministry of Education	Operation phase	NA	NA
	Asset creation	Develop a facility maintenance plan to sustainably maintain the strength and beauty of the infrastructure.	State of the infrastructure	NA	Visual Inspection	BUNDA	BUNDA IIT	Operation Phase	Part of project cost	Part of operation cost
	Increased students' intake at the University	Give equal enrolment opportunities to both men and women	Increasing number of Student enrolment per academic year	100% required recruitment for the ODeL Hub to	Records of number of students	Developer	Ministry of Education	Operational Phase	1,0000,000	1,000,000
		Renovate the infrastructure regularly to keep it in good shape to	Number of instances of	Zero cases	enrolled and registered	Developer	Ministry of Education	Operational phase	NA	NA

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
		facilitate teaching and learning.	infrastructure malfunction.							
		Employ more academic and non-academic members of staff	Increase number of employed academic and non-academic members of staff	Student enrolment	Annual university council reports	Developer	Ministry of Education	Operational phase	NA	NA
		Expand University course offerings to promote academic diversity	The number of new courses introduced at the University within a specified timeframe.	Depending on the demand of the courses	Annual University council report	Developer	Ministry of Education	Operational phase	NA	NA
Negative impacts										
	Increased generation Liquid waste	Inspection and service sewer line system. Use the 3Rs principles (Reduce, Re-use and Recycle) for the different types of wastes.	Presence of waste management plan on the site	Zero Liquid waste	Random site Inspection records	Developer, Local leaders and Contractor	Lilongwe district and environmental office	Operation phase	NA	NA
	Increased generation of	Purchase durable equipment to reduce breakages or malfunctioning	Presence of waste manageme	Zero Electronic waste	Random site inspection	Developer	Lilongwe district health and	Operation phase	NA	NA

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
	electronic waste	Invest in equipment with environmentally friendly label, As much as possible choose repairing than purchasing new equipment Use the 3Rs principles (Reduce, Re-use and Recycle) for the different types of wastes.	nt plan on the site				environmental office			
	Increased generation of solid waste	Dispose of waste in at designated sites, dust bins in all classrooms and outside of the building Use the 3Rs principles (Reduce, Re-use and Recycle) for the different types of waste.	The presence of a waste management plan on the site	Zero Solid waste	Random site inspection records	Developer, Local leaders and Contractor	Lilongwe district health and environmental office	Operational Phase	700,000.00	400,000.00
		Identify and use suitable sites to dispose of solid construction waste.	The presence of waste management plan on the site	Zero Solid waste	Random site inspection	Developer, Local leaders and Contractor	Lilongwe district health and environmental office	Operation phase	500,000.00	300,000.00

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
	Increased risk of water demand	Encourage water reuse/recycling as well as Post notices to encourage the sparing use of water	Proper water management and the number of water conservation notices posted	Zero Water wastage	Site inspection to see the cost of water bills	Contractor and developer	National Water Resource Authority	Operational Phase	2,000,000	1,000,000
		Install water-conserving taps that turn off automatically when water is not in use	Presence of modern water management plans such as taps, water tanks, flushing toilet and etc.	100% Water Conserving taps	Site inspection	Contractor and developer	National water resource authority	Operation phase	NA	NA
		Install water reserves within the site	Availability of enough water	No Water shortage	Site inspection to see the availability of water reservoirs	Contractor	Developer and Malawi National Water Authority	Operation phase	2,000,000.00	NA
	Increased risk of high energy demand	Install solar panels as part of building design as an alternative source of energy.	Availability of Solar panels at the site	50% of buildings are powered by Solar	Record of solar equipment purchases and record	Developer	Malawi Energy Regulatory Authority	Operational Phase	3,000,000	1,000,000

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
					of their effectiveness					
		Put off all lights immediately when not in use or not needed.	Number of unused lights	All un-used area	Energy Conservation messages at all works and University staff	Contactor and the university	Developer	Operation phase	NA	NA
	Increased risk of fire incidents	Designate a fire assembly point at the project site Place fire extinguishers at strategic points and make sure the fire extinguishers are in good condition and frequently inspected	Presence of fire assembly point and Number of fire incidences	Zero Fire Incidents	Fire incident reports	The Developer, Contractor and Architect	Lilongwe District Fire Department	All Phases of the project	2.000,000	1,000,000
		Install fire-fighting equipment in each building;	Presence of firefighting equipment	Zero fire incident	Fire incident reports	Developer and contractor	National Construction Industry Council (NCIC) and the National Council for Higher Education (NCHE)	All phases	NA	NA

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
	Increased risk of accidents and injury for workers, students, staff and communities	Apply the Occupational Health and Safety Management plan. Sensitise workers and surrounding communities about the existence of the plan,	Number of accidents and injuries	Workers, Students and college staff	Review accident and Injury records; interview construction workers	Contractor	Bunda DESC and Lilongwe district health and social welfare office	Construction Phase	Part of project cost	375,000.00
		Conduct monthly road safety awareness campaigns with learners and staff, surrounding communities	Number of monthly campaigns	All people at a site	Review monthly campaign reports	Contractor	Bunda DESC and Lilongwe district health and social welfare office	Construction phase	Part of project cost	
		Observe speed limits - 20 km/hour speed limit on school campus.	Number of spot checks on the site	All workers at a site	Spot-checks	Contractor	Bunda DESC	Construction phase	Part of project cost	
		Introduce speed limits in strategic areas E.g. install visible warning/informative signs in strategic areas, install humps and	Presence of road and speed limit signs	All roads leading to the site	Random inspection to see if the roads have visible sign posts of speed	Contractor	Mitundu traffic control office	Construction phase	Part of project cost	

Item	Potential impact	Recommended Enhancement/Mitigation Measure	Performance Indicator	Target	Means of Verification	Responsibility for Enhancement/ Mitigation	Responsibility for Monitoring	Timeframe	Mitigation Cost (MWK)	Monitoring Cost (MWK)
		Implement Traffic Management Plan			limits and physical structures like humps					
Total									**33,050,000**	**33,600,000**

5.0 IMPLEMENTATION ARRANGEMENTS

5.1 Implementation Arrangements

Once the four sub-projects enter into the construction and operational phase, the contractor and developer (Bunda College) have to oversee the monitoring role of environmental and social management at the project site. While it is critical to address negative impacts, Bunda College and the contractor should also proactively enhance project benefits in consultation with the affected people, and other stakeholders.

The Ministry of Education Project Implementation Unit (PIU) and Bunda College will be the implementing institutions for the four sub-projects (while ensuring coordination with each other). The PIU will ensure funds are mobilised to Bunda College and the Contractor and Consultant. The World Bank is funding the project. The PIU will be maintaining the project account to receive and utilize funds from the World Bank and preparing financial reports. As part of their oversight, Bunda College should ensure that the necessary funds and resources are readily available to avoid unnecessary delays or suspension of work. In liaison with the PIU, Bunda College will undertake the procurement of goods and services. The PIU should at least include a full-time project coordinator, a procurement specialist, a financial management specialist, a social and environmental specialist, and an M&E specialist. Bunda College as a beneficiary of the four projects should also have a project coordinator, and environmental and social specialist who will be responsible for regular Environmental and Social (E&S) reporting and monitoring. At a minimum, the reporting will include:

(i) the overall implementation of E&S risk management instruments,
(ii) any environmental or social issues arising as a result of project works and how these issues will be remedied or mitigated,
(iii) OHS performance (including incidents and accidents),
(iv) community consultation updates,
(v) public notification and communications,
(vi) progress on the completion of project works, and
(vii) Summary of grievances/beneficiary feedback received, actions taken and complaints closed out.

(viii) Reports from Bunda College will be submitted to the PIU at the Ministry of Education where they will be assembled and submitted to the World Bank every quarter.

The PIU, Bunda College and the Contractor should collaborate with other responsible stakeholders such as MEPA to implement mitigation and monitoring measures per provisions, timeframes, and requirements set out in the ESMP. The Environmental District Officer (EDO) for Lilongwe will be greatly involved in Monitoring for compliance with ESMP recommendations. Bunda College and the contractor should also collaborate with affected people, local leaders, community members and experts/researchers on coordinating responsibilities and arrangements for specific mitigation and monitoring activities within ESMP. The effectiveness of each mitigation activity should be revealed through regular Project Monitoring and Reporting. Details of the implementation arrangements, roles and responsibilities of each stakeholder are outlined in Tables 5-1 and 5-2 respectively.

Table 5-1: Implementation Arrangements

Responsible Party	Role and Responsibilities
MEPA	- Oversee project implementation, including the Environmental and Social Management Plan (ESMP) as well as the implementation of Environmental policy - Coordinate training sessions for central and field staff, contractors, and local communities on ESMP implementation and project execution. - Conduct environmental inspections and monitoring of the project - Coordinate with other government agencies for the effectiveness of the project
Ministry of Education	- Provision of financial management and guidance, and administrative support for effective project implementation. - Ensure contract documents and bidding processes integrate relevant Environmental and Social (E&S) Management provisions.
Ministry of Labour	- Monitor implementation of ESMPs with focus on labour and Occupation Health and Safety (OHS) issues - Provide technical guidance towards resolving labour realated grievances

PIU (Environmental Safeguards Specialist (1) and Social Safeguards specialist (1)	- Planning and implementation of the ESMP. - Ensuring that social and environmental protection and mitigation measures in the ESMP are incorporated into site-specific Environmental and Social Action Plans - Ensuring that the District Environment Sub-Committee (DESC) guided by the Environmental District Office is provided with relevant resources to oversee the implementation of the ESMP. - Supervision and monitoring of the progress of activities of contracted consulting engineers for the implementation of different components of the ESMP. - Responsible for modifications to the ESMP when unexpected changes are observed during implementation. - Reporting of incidents (Authorities, World Bank). - Ensure submission of periodic environmental and social management and monitoring reports to the World Bank. - Provision of permits related to site activities e.g. working at height, confined space, incident Investigations, - Promote improved social and environmental performance through the effective use of management systems - External communication with other implementing partners, government ministries and agencies, and non-government organizations on matters of mutual interest related to environmental management under project development
District level (DESC with assistance from the EDO)	- Training and capacity-building programs for local contractors and communities on environmental and social mitigation measures applicable to the project. - Monitor and address environmental concerns at the district level, enforcing regulations, reviewing projects' environmental impact, and promoting sustainable practices in collaboration with other stakeholders. - Complete site-specific ESMP for subproject activities and submit forms to the national level. - Writing progress reports of the project implementation and submit to the national level.

	- Oversee and monitor the daily implementation of the project, ensuring the effective implementation of environmental and social impact mitigation measures. - Facilitate resolving concerns of workers concerning project implementation.
Contractor	- Take all necessary measures to protect the health and safety of workers and community members during project implementation. - Take all necessary measures to prevent, minimize, or mitigate any adverse environmental impacts arising from project operations, per environmental regulations and best practices. - Ensure that the project implementation adheres to and fulfils all requisite standards, specifications, and regulatory requirements, guaranteeing quality and compliance. - Writing progress reports on the project implementation. - Ensure that the project is in full compliance with the environmental and social impact mitigation and management measures stipulated in the ESMP, contract documents, and applicable international and national legislation, regulations, and standards. - Provide support and facilitation to address and resolve worker concerns, issues, and grievances on project implementation, ensuring timely and fair resolution.
Community Members	- Management and monitoring of specific enhancement /mitigation measures as outlined in the ESMP - monitoring and providing feedback during the construction and operational phases. - Management and resolving grievances through the Community Grievance Redress Committees

5.2 Roles and Responsibilities

Table 5-2 summarizes the roles and responsibilities regarding the implementation arrangements of environmental and social management. Most stakeholders will be involved in the monitoring. The Malawi Environment Protection Authority (MEPA) is the public authority responsible for managing environmental assessments and permitting. The authority is responsible for protecting

the environment and promoting sustainable development, and also`` conducts environmental impact assessments, issues environmental approvals & certificates and monitors compliance with environmental regulations. MEPA issues an environmental letter of approval which serves as a permit enabling the project to proceed after approval of the ESMP.

Table 5-2: Roles and Responsibilities

Activity	Risk and Impacts	Mitigation Measures	Responsible Entity
Planning and design	Increased anxiety students and staff of Bunda	• Sensitization of students and staff on ESMP recommendations	*Implementation:* Bunda College *Monitoring:* Local Leaders Lilongwe DESC
Planning, Construction works and Operation of the project	Increased Jobs	• Employing unskilled labourers from surrounding communities.	*Implementation:* Contractor *Monitoring:* Lilongwe District Labour Office and Bunda. Lilongwe DESC.
Construction works	Increased business activities within the project area.	• Designate an area as a market within the project site. • Purchase construction and other materials from local entrepreneurs	*Implementation:* Contractor and Bunda *Monitoring* Lilongwe District Council, Lilongwe Ministry of Trade , DESC
Construction works	Increased air pollution	• Sprinkle water regularly to civil work areas and earth roads to suppress dust. • Manage Traffic using the Traffic Management Plan	*Implementation: Contractor* *Monitoring* Lilongwe DESC, Lilongwe Traffic Department.
Construction works	Increased soil contamination which may negatively impact	• Use impermeable surfaced servicing areas for vehicles	*Implementation:* Contractor *Monitoring* and Lilongwe DESC, Bunda Farm

Activity	Risk and Impacts	Mitigation Measures	Responsible Entity
	surrounding gardens and fish ponds		
Construction works	Increased noise pollution which can cause deafness.	• Provide ear protection materials for the workers and install silencers to construction vehicles	*Implementation:* Contractor *Monitoring* Lilongwe DESC
Construction works	Increased soil erosion	• Clear only those places where buildings will be constructed.	*Implementation:* Contractor *Monitoring* Lilongwe DESC
Construction works	Increased spread of HIV and other STIs	• Sensitise surrounding communities and workers on the dangers of unacceptable unions and Place condoms in all toilets	*Implementation:* Contractor, Bunda Clinic, *Monitoring* Lilongwe District Health and Social Welfare Office, Lilongwe DESC
Construction works	Increase in accident and injury incidents	• Train workers on proper use and handling of heavy equipment and machinery. • Use warning signs.	*Implementation:* Contractor, *Monitoring* Bunda and Lilongwe District Works Office.
Construction works and operation phase	Increased criminal acts	• Introduce or strengthen community policing in conjunction with Mitundu Police Station.	*Implementation:* Local leaders, Mitundu Police Station, *Monitoring* Contractor and Bunda.
Construction works	Increased Traffic density	• The traffic along the connecting roads should be controlled especially when construction work commences and mostly when trucks are turning into the site. • Use of warning and informative signs.	*Implementation:* Contractor *Monitoring* Bunda Local Leaders. Lilongwe DESC
Construction works, demobilization	Increased waste	• Dispose wastes at the designated places.	*Implementation:* Contractor Bunda

Activity	Risk and Impacts	Mitigation Measures	Responsible Entity
and operation phase		• Provide dust bins or rubbish pits for the solid wastes. • Sensitise project workers, local traders, staff and students on the existence and application of the Waste Management Plan for the Project	*Monitoring* Lilongwe district health and social welfare office Lilongwe DESC
Construction works and operation phase	Decreased sanitation	• Provide potable water within the site. • Provide pit latrines for workers on the construction site. • Sensitise project workers, local traders, staff and students on the existence and application of the Waste Management Plan for the Project	*Implementation:* Contractor *Monitoring* Bunda and Lilongwe district health and social welfare office, Lilongwe DESC
Demobilization	Reduced noise levels	• Remove all working and damaged construction machinery and equipment from the site.	*Implementation:* Contractor *Monitoring* Bunda, district public works office, Lilongwe DESC
Demobilization	Decreased employment opportunities	• Sensitise the labour force on the need to save part of their wages.	*Implementation:* Contractor, District labour office, *Monitoring* Lilongwe DESC
Construction works, demobilization and operation phase	Increased liquid wastes	• Monitor internal drainage system frequently • Connect the sanitary facilities like toilets and washing rooms to the existing sewer line system within the campus which drains liquid wastes to the sewer dam which the college uses.	*Implementation:* Contractor, Bunda *Monitoring* District health and social welfare office. Lilongwe DESC
Operation phase	Increased in energy demand	• Install and use of solar power as an alternative source of energy. • Put off all lights immediately when not in use or not needed.	*Implementation:* Bunda, Contractor *Monitoring* Ministry of Education. Lilongwe DESC
Operation phase	Increased water demand	• Encourage water reuse/recycling during the occupation phase.	*Implementation:* Bunda *Monitoring*

Activity	Risk and Impacts	Mitigation Measures	Responsible Entity
		• Installation of water-conserving taps that turn off automatically when water is not in use.	Ministry of Education. Lilongwe DESC

5.3 Proposed Training and Capacity Building

Effective implementation of the proposed construction projects at Bunda College of Agriculture will rely on training and capacity building. These trainings aim to equip stakeholders with skills to monitor and manage social and environmental impacts during project implementation. Additionally, they ensure efficient implementation of the Environmental and Social Management Plan (ESMP) provisions. Based on institutional capacity assessments, the following areas require capacity building for effective ESMP implementation:

- ESF Requirements
- Roles and responsibilities for environmental and social issues
- Occupational health and safety
- Labour requirements
- Emergency prevention and preparedness and response arrangements to emergencies
- Managing GBV/SEA risks
- Training for education establishment employees, students and local communities, particularly women:
- The function of the GRM and Grievance Redress Committees
- GBV/SEA provisions and referral pathways
- Road safety and community health and safety

These trainings will enhance the capacity of agencies involved in ESMP implementation, ensuring a successful project outcome. Table 5-3 presents a detailed approach to the proposed training and capacity-building areas of focus.

Table 5-3: Proposed Training and Capacity Building Approach

Level	Responsible Personnel	Audience	Topic/Themes that May be Covered	Estimated Cost (MWK)
National Level	World Bank Consultant	- PIU staff - Bunda staff - - MEPA staff	ESF Requirements - Occupational health and safety - Labour requirements - Emergency prevention and preparedness and response arrangements to emergencies - Managing GBV/SEA risks (GBV/SEA provisions and referral pathways) - Road safety and community health and safety - The function of the GRM and Grievance Redress Committees	3,000,000.00
District Level	- PIU Safeguards Specialists - Bunda staff	- DESC members to be involved in the project management -	ESMF requirements: - Identification and assessment of E&S risks - Selection and application of relevant E&S risk management measures/instruments - E&S monitoring and reporting - Incident and accident reporting - Application of SEP and the grievance/beneficiary feedback mechanism - Gender-based violence (GBV) Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH) Management	5,000,000.00
Project Level	- DESC - PIU Safeguards Specialists	- - - Project Contractor's staff	- C-ESMP Implementation approach - Application of Labour Management Plan including	7,000,000.00

Level	Responsible Personnel	Audience	Topic/Themes that May be Covered	Estimated Cost (MWK)
			Code of Conduct and incident/accident reporting. - Management of Gender Based Violence, sexual harassment and abuse, child labour and sexual exploitation. - Overview of Child Labour Management Plan. - Application of SEP and the beneficiary feedback/ grievance mechanism.	
Local Community level	- DESC - PIU Safeguards Specialists	- Local leaders - Community members.	- An overview of Community Health and Safety Hazards in construction. - HIV and other STI prevention measures. - COVID-19 mitigation measures. - - Workers' and Community Grievance Redress processes. - Use of different warnings and informative signs at construction sites.	3,000,000.00
TOTAL ESTIMATED COST				**18,000,000.00**

5.4 Estimated Budget

Table 5-4 lists estimated cost items for the implementation of the ESMP, which have been included in the overall project budget:

Table 5-4: Summary of ESMP Implementation Budget

Sn	Activity / Cost Item	Potential Cost (MWK)
1	Cost for acquisition of different permits and clearance of other imported goods and services.	10,000,000.00
2	Staff training, local leaders (Transport, venue, refreshments, stationary etc.)	18,000,000.00
3	Implementation of site-specific ESMP and other site-specific plans.	33,050,000.00
4	Monitoring of ESMP	33,600,000.00
5	Printing of awareness-raising materials and grievance redress materials.	3,000,000.00
TOTAL		**97,650,000.00**

6.0 STAKEHOLDER ENGAGEMENT, GRIEVANCE REDRESS MECHANISM, DISCLOSURE AND CONSULTATION

6.1. Stakeholder Engagement and Consultation at all project phases

The stakeholder's engagement is crucial in the development of the Environmental and Social Management Plan and project implementation as it ensures that all the relevant stakeholders are well informed, involved and able to contribute to the decision-making process throughout the project development. These stakeholders include; government agencies and ministries, non-governmental organizations (NGOs), local leaders, community members, Natural Resources College members of staff and students. Various approaches were used during stakeholders' engagement including **Public Consultations:** through meetings with local and college authorities to discuss project impacts and mitigation measures, **Workshops:** Interactive sessions with PIU, NGOs and government agencies and ministries to discuss technical aspects of the project and **Surveys:** Questionnaires distributed to gather feedback and concerns from stakeholders. The meetings were held with representatives of Ministries of Education, Labour, Gender, Youth and Sports at the national level, Lilongwe District DESC members, members of staff at Bunda and students, local leaders and community members from villages around Bunda College. The attendance registers, minutes of the consultative meetings and roles which stakeholders can play in ESMP implementation are presented in Appendices 1 to 12. The consultative meetings were held on the 9th of June 2023 at the national level, the 12th of June, 2023 Bunda Supporting Staff, Students and community members and the 13th of June 2023 Lilongwe DESC (Table 6-1) for more details refer to appendix 10.

Table 6-1: Summary of issues during consultative meetings

No	stakeholders	Key Issue Raised	Response Given
1.	Academic staff and support staff	What measures are in place to reduce noise and dust	The machines will be serviced frequently and for dust, the contractor will be spraying water.
		Consideration improving water conservation considering that the bills will increase	A contractor will be advised to design water conservation systems e.g. automatic self–switching taps.
		Need to design a sewer system to accommodate waste from the food processing plant	The Design of the sewer system at the college is big enough to accommodate future developments
		The communities expressed concerns that they are often overlooked for employment opportunities whenever projects are implemented at Bunda, yet their involvement is sought when Bunda students conduct research in their villages.	The contractor will be requested to follow Malawi labour laws and Bunda College will monitor that the contractor follows the labour laws
		Members wanted to know how waste coming from the Food Processing	A Waste Management Plan will be developed for the Plant

No	stakeholders	Key Issue Raised	Response Given
		Plant would be handled to ensure hygiene is practised at the College	
		College clinic be involved in the project	The consultant noted and will be included in the ESMP
2.	Students	Students wanted to know where classes would be conducted during rehabilitation work.	College Management will be advised to revise the timetable and allocation of lecture rooms and laboratories
		Members wanted to know how dust from the construction site will be managed so that students are not affected by it (dust).	During the construction, the dust will be suppressed by spraying water
		What measures will be in place to ensure community health and safety? Including the prevention of STIs	There are awareness campaigns lined up and will be incorporated into the ESMP and C-ESMP
		Contractors not implementing recommended mitigation measures in the ESMP\ESIA	All stakeholders will be responsible for monitoring ESS compliance
3.	Communities Around Bunda College (GVH Mkwinda, Kamowa and Chilowa Malichi, Ngolomi Village Haji Village)	Communities complained that they do not benefit from opportunities at Bunda College. Members said that the only time the villages are recognized is when LUANAR students go to the villages for their research.	Some locals with skill and without skills will be employed in the project and this will be included in the ESMP.
		The community members especially men raised fear of losing their women to the contractor and workers at the project	The project deters contractors and workers from disrupting marriages and all workers will sign a code of conduct for them not to disrupt the marriages.
4.	Lilongwe DESC	Waste Management plan: A lot of wastes will be generated from the proposed food processing plant, therefore, there is need for a good waste management plan.	A Waste Management plan will be developed and will make part of ESMP and C-ESMP
		Noise will be produced from the Food Processing Plant; how will the noise be mitigated?	The noise will be mitigated by using equipment with low noise and regular maintenance of the equipment
		ESMP report. The council would love to have a copy of the ESMP.	The ESMP will be shared to Lilongwe DESC for disclosure and monitoring
		Replacement of the cut-down trees. Members want the trees that would be cut in the SAVE projects to be replaced as per national regulation.	The project will replace 1 tree cut with 10 trees

A separate Stakeholder Engagement Plan (SEP) has been prepared for the SAVE Project, based on the World Bank's Environmental and Social Standard 10 (ESS10) on Stakeholder Engagement. The SEP can be found at

https://documents1.worldbank.org/curated/en/314131616158364147/pdf/Stakeholder-Engagement-

Plan-SEP-Skills-for-A-Vibrant-Economy-Project-P172627.pdf.

This ESMP, as well as the SEP and the Environmental and Social Commitment Plan (ESCP) that have been prepared for this project, have been disclosed in the draft for stakeholder consultations on the following website:

https://www.education.gov.mw/index.php/edu-resources/documents-and-publications/category/3-save-project?download=8:environmental-and-social-commitment-plan-escp-save-project. Key feedback, if any, on this ESMP should be sent to: The Registrar, Bunda College, Mitundu, Lilongwe. The Ministry of Education will provide the website address and the date for feedback on this ESMP.

6.2. Grievance Redress Mechanism and Disclosure

The Grievance Redress Mechanism (GRM) will address complaints and concerns from the stakeholders affected by the project's environmental and social impacts. There shall be two committees at the Institutional & Community Level; Institutional & Community Grievance Redress Management Committees (ICGRMC) and Workers Grievance Redress Mechanism (WGRM). The ICGRMC has been established by Bunda College to manage grievances at the Institutional & Community level. For this GRM, comprises the Group Village Headman Malichi and community members where the project is located, Government sectors and members of the University including students' representatives. The contractor should prepare a Workers Grievance Redress Mechanism (WGRM) before the work commences, based on the SAVE project's GRM. Similarly, Bunda College should revise its GRM based on the SAVE GRM. The WGRMC will handle workplace grievances to ensure that project workers have the opportunity to lodge complaints when they feel infringed in their course of duty. All workers shall be informed of the existence of the WGRMC and the procedures involved. This committee will ensure fair resolution of all complaints within the prescribed timeframes. The WGRMC will handle all work-related grievances arising during project implementation. Some of the examples of grievances that may come from workers during project development include unfair dismissal from work and discrimination, corruption and theft cases, lower and delayed wages, long working hours, gender-based violence and Sexual exploitation.

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

When a complaint is received, an assessment shall be done to determine whether the complaint or grievance is related to the Food Processing Plant project implementation or not. If the complaint is not related to the project the complainant shall be advised to channel their complaint to the relevant institution. If the complaint or grievance is related to the project, the GRM committee shall hear the case and make the necessary follow-ups to establish the truth of the matter. The outcome of the analysis shall be communicated to the complainant within 14 days. There are other grievances like rape and corruption that should be referred to immediately to the police. The following are the stages in which the Grievance Redress Mechanism will follow when addressing workers' grievances: **Stage 1:** Complaint uptake, **Stage 2:** Assessment, analysis and response, **Stage 3:** Resolution and closure, **Stage 4:** GRM Registry and **Stage 5:** GRM Evaluation. There are general major components of a GRM for the project Table 6-1 presents some of the key components of a GRM for the project.

Table 6-2: Key Components of a GRM

SN	GRM Component	Discussion
1	Access and Awareness	- To ensure that all stakeholders are aware of the GRM and how to access it.
2	Transparency	- Clear procedures and timeline for addressing grievances.
3	Confidentiality	- Protecting the identity of complainants if requested.
4	Documentation & Reporting	- Keeping accurate records of grievances and actions taken.
5	Responsiveness	- Timely and appropriate responses to grievances.
6	Fairness & Objectivity	- Ensuring the impartiality in resolving grievances.

Grievance Reporting and Grievance Recording; The grievance redressal committee will 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.
- A GRM Focal Person's Phone Number with WhatsApp and text facilities (+265887197064)
- A GRM Focal Person's Email Address. (fmkomb@luanar.ac.mw)

7.0 APPENDICES

Appendix 1: ESS Screening Form for the Food Processing Plant at Bunda 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 SAVE PROJECT	Estimated Cost (MK) 4.5 Million USA for whole project 1.08 million for construction
District and Traditional Authority LILONGWE CHADZA	Funding Agency World Bank
Project Objectives Construction of food Processing Plant	Proposed Main Project Activities increase assess especially for female to labour markets relevant skills
Name, Signature & Designation of Evaluator(s): 1. Memory Kamoyo ESS (Mhla) 2. Chikondi Kaunda Asst. Arch. Off. 3. Shylock Hara Electrical Office	Date of Field Appraisal 3 December, 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	✓		✓			find an alternative land
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 Brachsystegia 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	✓		✓			

near water board pipes

1

	SCOPE AND FOCUS OF SCREENING	METHODOLOGY OF SCREENING: Appraisal of Impacts Yes	Appraisal of Impacts No	Significance of the Impacts Low	Significance of the Impacts Medium	Significance of the Impacts High	PROPOSED MITIGATION MEASURES
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		✓				
2.2	Soil erosion	✓		✓			Drainage system and excavate within the foundation boundary
2.3	Damage of wildlife species and habitat		✓				
2.4	Increased exposure to agro-chemical pollutants		✓				
2.5	Chemical pollution	✓			✓		use of approved products
2.6	Nuisance – smell, dust or noise	✓		✓			spray waters during construction
2.7	Reduced water quality		✓				
2.8	Increase in costs of water treatment		✓				
2.9	Soil contamination	✓		✓			waste Management
2.10	Risk of injuries to workers and communities	✓			✓		Provide PPE
2.11	Siltation of watercourses , dams		✓				
2.12	Loss of soil fertility		✓				
2.13	Increasing incidences of diseases	✓		✓			civil education
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	✓					Plant already existing plants in the area
2. 20	Increased incidences of plant and animal diseases		✓				
2.21	Poor waste disposal	✓					Segregate the waste, recycle reuse and proper disposal
2.22	Increased cases of open defecation						
2.23	Disturbalization of river banks and or drainage systems due to sand mining	✓	✓				Procure sand from licenced suppliers
2.24	Creation of borrow pits arising from extracting of construction materials	✓					Rehabilitate the borrow pits after the Project
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	✓		✓			Provide alternative land for crops department
3.2	Loss of property – houses, agricultural produce, etc.		✓				now there is no ever stand-
3.3	Loss of cultural sites – graveyards, monuments, etc.		✓				
3.4	Interference in marriages for local people	✓					Sensitization on the impact of the project
3.5	Loss of income generating capacity		✓				
3.6	Spread of HIV and AIDS, STDs	✓					Give education on preventive measures
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	✓					Hiring local people
3.10	Conflicts over land use and ownership		✓				
3.11	Disruption of important pathways, roads	✓		✓			routes
3.12	Loss of access to public facilities e.g. classrooms, staff house. etc.	~~✓~~	✓	~~✓~~			Create specific paths for Project vehicles

3.13	Increase in cases of theft and crime	✓			✓		Increase Security Personnel
3.14	Risk of child labour	✓		✓			Monitor workers age
3.15	Increase in school drop out	✓		✓			Monitor working hours
3.16	Lack of access to public facility by persons with disability		✓				
3.17	Increase in cases of gender based violence	✓	✓		✓		Sensitize Community and workers on GBV
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	✓			✓		Hire more workers from surrounding area
4.2	Promotion of local skills and knowledge	✓			✓		
4.3	Asset creation	✓			✓		Proper maintainance
4.4	Improved transportation		✓				
4.5	Improved standards of living/social status	✓			✓		Hire from the local
4.6	Improved food security	✓		✓			
4.7	Creation of business opportunities	✓			✓		Allow community to sell their products
4.8	Increased income at individual/household level	✓		✓			Employ most people from surrounding areas

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	• Cause 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/ARAP	YES / NO
List A/B Paragraph Numbers	
Date Exempted	
Date Forwarded to EAD Head Office	
Name & Signature of EDO Tadala Senderera	

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	

THE DISTRICT COMMISSIONER
LILONGWE DISTRICT COUNCIL
10 JAN 2023
P.O. BOX 93, LILONGWE
3 MALAWI

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.

Appendix 2: Full Project Scope

Knowledge Innovation and Excellence

LILONGWE UNIVESITY OF AGRICULTURE & NATURAL RESOURCES (LUANAR)

FULL PROJECT SCOPE DOCUMENT

PROPOSED NEW INFRASTRUCTURE PROJECTS AND REHABILITATION OF EXISTING BUILDINGS AT BUNDA COLLEGE (BC) AND NATURAL RESOURCES COLLEGE (NRC)

UNDER

WORLD BANK'S

SKILLS FOR A VIBRANT ECONOMY (SAVE) PROJECT

Compiled by

ESTATES & INFRASTRUCTURE DEVELOPMENT OFFICE

LILONGWE UNIVESITY OF AGRICULTURE AND NATURAL RESOURCES (LUANAR) P.O. BOX 219 BUNDA LILONGWE MALAWI.

AUGUST 2022

LUANAR's Estates & Infrastructure Development Office

Knowledge, Innovation & Excellence

INTRODUCTION

This document describes the full scope of works on Infrastructure projects to take place at

Lilongwe University of Agriculture and Natural Resources (LUANAR) at its campuses, Bunda College and Natural Resources College (NRC) under the World Bank project of Skills for A vibrant Economy (SAVE).

This full scope of works document is part of the Terms of Reference for the design and supervision consultants who will be hired from inception to design, tender documentation, contract administration and supervision on site. The consultant will be expected to work in close liaison with the Lilongwe University of Agriculture and Natural Resources (LUANAR)'s Estates and Infrastructure Development Office in execution of the following works;

A. BUNDA COLLEGE CAMPUS

The work at Bunda College will involve the following;

(a) Construction and Equipment of Food Processing Plant at Bunda College. The proposed site is next to the Students' Animal Farm on the road to Bunda Main Farm. The facility will comprise the following; The facility will have 3 distinctive sections;

a. The dairy processing plant section
b. The Wet processing plant section
c. The dry processing plant section

The internal layout of these sections has a logical sequence of events from the inlet of materials to production/processing to the end products.

The Food Processing Plant will also include the following rooms/areas within the facility;

d. Ablution block for Gents and Ladies to include shower rooms and change rooms for hygiene purposes.
e. A quality Assurance Laboratory fully equipped to analyze end products. The processing lines have different streams in the lab.
f. A fully equipped laboratory for food processing plants. The capacity of the lab to be 35-40 students.
g. The facility to contain a cold room for storage of raw materials or processed end food products.
h. The facility to have a conference room /meeting with 30 people capacity.
i. 2 No offices for Technicians – at least 12 square meters each
j. 3 No. offices for Production Managers of the 3 processing plant sections – at least 16 square meters each
k. 2No. Preparatory Classrooms for students' briefing. The class capacity of 3540 students each.

The facility will also have the following ancillary structures

l. A car park for visitors, lecturers, students and staff.
m. A stand-by Generator in case of power outages
n. A 30,000 litres Water Reservoir in case of water shortages.
o. Ventilation systems / services for some of the laboratory equipment.
p. A refuse collection bay

NOTE:

- The facility needs to comply with Malawi Bureau of Standards (MBS) requirements. MBS will also need to guide in terms of how the facility is going to be developed.

- The specifications of equipment and some of the requirements for Labs will be given by the user department. This will determine the room sizes (in terms of height, flow of process etc.) in the processing plants.

- The layout of the facility should follow what was previously designed regarding this facility. The layout is attached in the Appendix.

(b) The Construction of Bio-Energy Laboratory at Bunda College - This facility is set to be a research laboratory, where research students will work hand in hand with lecturers. The

proposed site is behind the Forestry Department at Bunda College. The facility will comprises of the following;

a. A laboratory to take a capacity of 20 students
    i. Fixing and Installation of a Fume hood to outlet of the building
    ii. Fixed with Laboratory sinks and Taps
    iii. Furnished with shelves and chemical resistant work tops
    iv. To include emergency showers
    v. To be finished with epoxy floors
    vi. Furnished with white boards/projecting screens
    vii. Ventilation - Air conditioning systems
    viii. To be fully equipped.
b. 2No. offices for technicians and lecturers– Documentation offices - at least 12sq meters
c. An ablution block for gents and ladies for staff and students.

The facility will also have the following ancillary structures

d. A shade for charcoal cook stoves –on the external of the facility
e. Kilns made of brickwork – on the external of the facility
f. A gas cylinder cage for storage of gas cylinders
g. A car port for staff.
h. A stand-by Generator in case of power outages
i. A 5,000 litres Water Reservoir in case of water shortages.

NOTE: The structures to be in a fenced compound.

(c) Construction Green House at Bunda College – This facility will designed similarly to the existing Green House at the crops research farm. The proposed site is at Crop Science Farm behind the toilets for the Multi-Purpose Hall. The facility will comprises of the following;

a. The Green house which going to be 35m in length and 15m in width.
b. The structure will be constructed in concrete block wall with a shade canopy as a roof and roof structure details. Roof trusses to rest of I-beam sections. Windows for structure will be opening with Insect proof nets.
c. The structure will need to have water and electricity connected to it.

d. The interior of the structure to include raised benches for the plants

e. Interior drainage to be installed with STEEL GRATING for all open drains. NOTE: Please ensure there is enough slope of the drains to outlets.

(d) Construction of Cold-Room Storage at Animal Science Farm at Bunda College -This facility will designed similarly to the existing cold room at animal science farm. The facility will comprises of the following;

a. A shell which will basically be constructed and a cold room installed. The facility will consist of a cold room and chillers.

b. There will be need for back-up generator as well as water reservoir of about 5, 000 liters for the facility.

(e) Construction of Rain Water Shelter at Bunda College – The idea of this facility is to control crop exposure to water and sunlight. Basically this is an open-ended shelter. Mostly constructed using steel sections as support of the roof structure. The proposal is that this shelter will be located at Crop Science Research Farm.

(f) Rehabilitation of Existing Buildings at Bunda College. The rehabilitation works will involve the following structures;

a. Rehabilitation of the Plant Bleeding Laboratory – will involve the rehabilitation of the following elements;

i. Existing IBR roofing sheets – replacing most of the worn out sheets (or paint is peeling off) and sealing off all leaking spots within the roofing area. Checking the roof structure in case there might need to replace old timber rafters with new ones.

ii. Roof Soffit – replace and make good all soffits which are worn out and rotten in some areas and re-paint the whole roof soffit with vanish.

iii. Ceiling – Removing the old Celotex ceiling and replacing with Nu-lite ceiling (which has fire resistant properties) for paint finish. NOTE: Please check on the wiring of the lighting points within each room if there might be need for re-wring before installation of the new ceiling.

iv. Windows and doors – replace and make good all window panes/louvers as well as rotten window and door frames. Fix monkey mesh in all windows. Replace all missing locks, keys and/or handles on all doors.

v. Walls – Most exterior and interior walls are dirty and there is need to scrap off the dirt and old paint and re-paint them.

vi. Floors – There is need to install an epoxy-paint floor finish in the laboratory including the back offices since this is a chemically infused lab.

vii. Mechanical and Electrical fittings – replace and make good all worn out/damaged electrical and mechanical appliances/fittings with new ones. Install 1No. Air conditioning unit within the lab. Check the wiring for lighting and power within the lab since some wires are rotten/eaten/missing and they need to be replaced.

viii. Other Services – Assess and maintain the plumbing system in the lab. Replace all worn out sinks and taps with new ones. The open drains in the lab need to be maintained and closed with proper steel grating. The gas system in the lab which is not functional needs to be assessed and maintained.

ix. Other fittings and Furniture – Working tops made of wood and finished in Formica need to be replaced by polished granite tops since this is a chemically infused lab. There is also need to procure and supply additional stools in the laboratory for students and staff.

b. Rehabilitation of Existing Offices at Bunda College – These offices are the ones which have been left vacant by officers relocating to the New Gateway Administration Block and Teaching Complex "A" as well as Norway Teaching Complex (NTC). The rehabilitation works will involve;

i. Existing IBR roofing sheets – replacing most of the worn out sheets (or paint is peeling off) and sealing off all leaking spots within the roofing area. Checking the roof structure in case there might need to replace old timber rafters with new ones.

ii. Roof Soffit – replace and make good all soffits which are worn out and rotten in some areas and re-paint the whole roof soffit with vanish.

iii. Ceiling – Removing the old Celotex ceiling and replacing with Nu-lite ceiling (which has fire resistant properties) for paint finish. NOTE: Please check on the wiring of the lighting points within each room if there might be need for re-wring before installation of the new ceiling.

iv. Windows and doors – replace and make good all window panes/louvers as well as rotten window and door frames. Fix monkey mesh in all windows. Replace all missing locks, keys and/or handles on all doors.

v. Walls – Most exterior and interior walls are dirty and there is need to scrap off the dirt and old paint and re-paint them. vi. Floors – Remove all carpets and vinyl tiles in the existing offices and replace with a porcelain tiles 600 x 600mm.

vii. Mechanical and Electrical fittings – replace and make good all worn out/damaged electrical and mechanical appliances/fittings with new ones.

Check the wiring for lighting and power since some wires are rotten/eaten/missing and they need to be replaced.

viii. Other Services – Exterior water drains need to be un-clogged and space between the drain and the building need to be plastered to a slope. Remove non-functional sanitary fittings in office ablutions and replace them with new ones.

ix. Other fittings and Furniture –There is also need to procure and supply furniture for this existing offices.

c. Expansion and Equipping of Mushroom Structures at Bunda College – These are the Mushroom structures at the Crop Science Research Farm. The said structures are old and heavily dilapidated, what would be ideal is to demolish the said structures and construct new structures. The new structure to be built in concrete blocks will comprises of;

i. 5 to 6 rooms, to be ventilated and fixed with humidifiers
ii. The structure to be fully equipped with water and electricity services.
iii. The existing Mushroom structures next to the forestry Guest House (ex ODL offices) will be need to be equipped.

NOTE: The room sizes and type of equipment to be installed into these mushroom structures to be determined by the user department.

d. Rehabilitation of Students Animal Farm at Bunda College – These rehabilitation works will involve rehabilitation of several structures within the Students animal farm as follows;

i. Poultry House

1. Existing IBR roofing sheets – replacing most of the worn out sheets (or paint is peeling off) and sealing off all leaking spots within the roofing area. Checking the roof structure in case there might need to replace old timber rafters with new ones.
2. Walls – Most interior walls are not plastered they need to be plastered and painted. Exterior walls are finished in brick they need proper brick pointing finish.
3. Floors – In some rooms/areas the floor screed is won out in other no screed at all. There is need to re-screed the entire floors in all the rooms
4. Chicken Cages - There is need to renovate some of the cages that need mild maintenance and procure other chicken cages

5. Mechanical and Electrical Fittings- the Poultry House have no Power. There is need to electrify the buildings with Power to include Light switches and power outlets.

ii. Standard Dairy Pen

1. Existing IBR roofing sheets – the existing roof is dilapidated and there is need to replace the entire roof.
2. Troughs – The existing troughs are dilapidated and there is need to construct feed troughs at a raised surface. Cow Crush.
3. Floors - The current floor is simply made up of sand and becomes muddy. There is need to fix concrete floors
4. Fence - The current fence is completely worn out, it's made of timber poles and timber planks. There is need to fix a wire fence with steel metal poles around the cow crush.

iii. Cow Crush

1. Floors - The current floor is simply made up of sand and becomes muddy. There is need to fix concrete floors
2. Fence - The current fence is completely worn out, it's made of timber poles and timber planks. There is need to fix a wire fence with steel metal poles around the cow crush.

iv. External Works

1. Security lights - There is currently no security lights. There is need to install security lights i.e. Flood lights.
2. Fence - The current fence is completely worn out, it's made of timber poles and timber planks. There is need to fix a wire fence with steel metal poles around the cow crush.

B. NATURAL RESOURCES COLLEGE CAMPUS

(g) Construction of a Fashion Design and Learning Complex at Natural Resources College (NRC). The facility will have 3 distinctive sections;

a. An Auditorium Area

i. An auditorium with a seating capacity of 250 people
ii. A stage with a seating capacity of 30 -40 people
iii. Sanitary facilities directly accessed from it for Gents and Ladies

b. Classrooms Area

i. 4No. Classrooms with minimum seating capacity of 40 students each. All classrooms to be mounted with LCD projectors and screens. The classrooms will use white-felt boards only and not chalk-boards.

ii. Each Classroom should have a lecture's office attached to it.

iii. There should be a Sever room for ICT

iv. Another room for keeping other ICT supporting equipment.

c. Specialised Laboratories for Fashion and Studio Area

i. 3 No. specialised laboratories with proposed seating capacity of 40 students each.

ii. Each of those laboratories to have preparatory rooms for Technicians of at least 12 square meters each.

iii. 2 No Design Studios – the internal layout to have logical sequence of events from inlet (of materials) to production/processing of the end product.

The Fashion Design and Learning Complex will also include the following rooms/areas within the facility;

(a) A conference/meeting room for staff with capacity of 30 people.

(b) 2No. office for Technicians of at least 12 squares meters each.

(c) 2No. office for Production Managers of at least 16 squares meters each. (d) A Veranda (Khonde) attached to showcasing Apartments

The facility will also have the following ancillary structures

(e) A car park for visitors, lecturers, students and staff.

(f) A stand-by Generator in case of power outages

(g) A 30,000 litres Water Reservoir in case of water shortages.

(h) A refuse collection bay

(h) Rehabilitation of Existing Laboratories at Natural Resources College (NRC) will comprises of rehabilitating 3No. existing laboratories, an Abattoir and Cold Room, the Veterinary Medicine Classroom and Veterinary Clinic as follows;

3No. LABORATORIES

a. Rehabilitation of the Physics Laboratory at NRC – will involve the rehabilitation of the following elements;

i. Existing IBR roofing sheets – replacing most of the worn out sheets (or paint is peeling off) and sealing off all leaking spots within the roofing area. Checking the roof structure in case there might need to replace old timber rafters with new ones.

ii. Roof Soffit – replace and make good all soffits which are worn out and rotten in some areas and re-paint the whole roof soffit with vanish.

iii. Ceiling – Removing the old Celotex ceiling and replacing with Nu-lite ceiling (which has fire resistant properties) for paint finish. NOTE: Please check on the wiring of the lighting points within each room if there might be need for re-wring before installation of the new ceiling.

iv. Windows and doors – replace and make good all window panes/louvers as well as rotten window and door frames. Fix monkey mesh in all windows. Replace all missing locks, keys and/or handles on all doors.

v. Walls – Most exterior and interior walls are dirty and there is need to scrap off the dirt and old paint and re-paint them.

vi. Floors – There is need to install an epoxy-paint floor finish in the laboratory including the back offices since this is a chemically infused lab.

vii. Mechanical and Electrical fittings – replace and make good all worn out/damaged electrical and mechanical appliances/fittings with new ones. Install 1No. Air conditioning unit within the lab. Check the wiring for lighting and power within the lab since some wires are rotten/eaten/missing and they need to be replaced.

viii. Other Services – Assess and maintain the plumbing system in the lab. Replace all worn out sinks and taps with new ones. The open drains in the lab need to be maintained and closed with proper steel grating. The gas system in the lab which is not functional needs to be assessed and maintained.

ix. Other fittings and Furniture – Working tops made of wood and finished in Formica need to be replaced by polished granite tops since this is a chemically infused lab. There is also need to procure and supply additional stools in the laboratory for students and staff.

b. Rehabilitation of Plant Biology Laboratory at NRC – will also involve the rehabilitation of the following elements;

i. Existing IBR roofing sheets – replacing most of the worn out sheets (or paint is peeling off) and sealing off all leaking spots within the roofing area. Checking the roof structure in case there might need to replace old timber rafters with new ones.

ii. Roof Soffit – replace and make good all soffits which are worn out and rotten in some areas and re-paint the whole roof soffit with vanish.

iii. Ceiling – Removing the old Celotex ceiling and replacing with Nu-lite ceiling (which has fire resistant properties) for paint finish. NOTE: Please check on the wiring of the lighting points within each room if there might be need for re-wring before installation of the new ceiling.

iv. Windows and doors – replace and make good all window panes/louvers as well as rotten window and door frames. Fix monkey mesh in all windows. Replace all missing locks, keys and/or handles on all doors.

v. Walls – Most exterior and interior walls are dirty and there is need to scrap off the dirt and old paint and re-paint them.

vi. Floors – There is need to install an epoxy-paint floor finish in the laboratory including the back offices since this is a chemically infused lab.

vii. Mechanical and Electrical fittings – replace and make good all worn out/damaged electrical and mechanical appliances/fittings with new ones. Install 1No. Air conditioning unit within the lab. Check the wiring for lighting and power within the lab since some wires are rotten/eaten/missing and they need to be replaced.

viii. Other Services – Assess and maintain the plumbing system in the lab. Replace all worn out sinks and taps with new ones. The open drains in the lab need to be maintained and closed with proper steel grating. The gas system in the lab which is not functional needs to be assessed and maintained.

ix. Other fittings and Furniture – Working tops made of wood and finished in Formica need to be replaced by polished granite tops since this is a chemically infused lab. There is also need to procure and supply additional stools in the laboratory for students and staff.

c. Rehabilitation of Soil Laboratory at NRC - will also involve the rehabilitation of the following elements;

i. Existing IBR roofing sheets – replacing most of the worn out sheets (or paint is peeling off) and sealing off all leaking spots within the roofing area. Checking the roof structure in case there might need to replace old timber rafters with new ones.

ii. Roof Soffit – replace and make good all soffits which are worn out and rotten in some areas and re-paint the whole roof soffit with vanish.

iii. Ceiling – Removing the old Celotex ceiling and replacing with Nu-lite ceiling (which has fire resistant properties) for paint finish. NOTE: Please check on the wiring of the lighting points within each room if there might be need for re-wring before installation of the new ceiling.

iv. Windows and doors – replace and make good all window panes/louvers as well as rotten window and door frames. Fix monkey mesh in all windows. Replace all missing locks, keys and/or handles on all doors.

v. Walls – Most exterior and interior walls are dirty and there is need to scrap off the dirt and old paint and re-paint them.

vi. Floors – There is need to install an epoxy-paint floor finish in the laboratory including the back offices since this is a chemically infused lab.

vii. Mechanical and Electrical fittings – replace and make good all worn out/damaged electrical and mechanical appliances/fittings with new ones. Install 1No. Air conditioning unit within the lab. Check the wiring for lighting and power within the lab since some wires are rotten/eaten/missing and they need to be replaced.

viii. Other Services – Assess and maintain the plumbing system in the lab. Replace all worn out sinks and taps with new ones. The open drains in the lab need to be maintained and closed with proper steel grating. The gas system in the lab which is not functional needs to be assessed and maintained.

ix. Other fittings and Furniture – Working tops made of wood and finished in Formica need to be replaced by polished granite tops since this is a chemically infused lab. There is also need to procure and supply additional stools in the laboratory for students and staff.

ABATTOIR AND COLD ROOM

d. Rehabilitation of Abattoir and Cold-room at NRC- will also involve the rehabilitation of the following elements;

i. Existing IBR roofing sheets – replacing most of the worn out sheets (or paint is peeling off) and sealing off all leaking spots within the roofing area. Checking the roof structure in case there might need to replace old timber rafters with new ones.

ii. Roof Soffit – replace and make good all soffits which are worn out and rotten in some areas and re-paint the whole roof soffit with vanish.

iii. Ceiling – Removing the old Celotex ceiling and replacing with Nu-lite ceiling (which has fire resistant properties) for paint finish. NOTE: Please check on the wiring of the lighting points within each room if there might be need for re-wring before installation of the new ceiling.

iv. Windows and doors – replace and make good all window panes/louvers as well as rotten window and door frames. Fix monkey mesh in all windows. Replace all missing locks, keys and/or handles on all doors.

v. Walls – Most exterior and interior walls are dirty and there is need to scrap off the dirt and old paint and re-paint them.

vi. Floors – There is need to hack the exiting floor and fix porcelain tiles for easy cleaning.

vii. Mechanical and Electrical fittings – replace and make good all worn out/damaged electrical and mechanical appliances/fittings with new ones. Check the wiring for lighting and power within the Abattoir and Cold-room since some wires are rotten/eaten/missing and they need to be replaced.

viii. Other Services – Assess and maintain the plumbing system in the Abattoir and the Cold-room. Replace all worn out sinks and taps with new ones. The open drains in the lab need to be maintained and closed with proper steel grating. In the toilets and bathrooms there is need to fix new toilets and new showers as well as install wall tiles.

ix. Other Works – Exterior water drains need to be un-clogged and space between the drain and the building need to be plastered to a slope.

VETERINARY MEDICINE CLASSROOM

e. Rehabilitation of Veterinary Medicine Classroom at NRC - will also involve the rehabilitation of the following elements;

i. Existing IBR roofing sheets – replacing most of the worn out sheets (or paint is peeling off) and sealing off all leaking spots within the roofing area. Checking the roof structure in case there might need to replace old timber rafters with new ones.

ii. Roof Soffit – replace and make good all soffits which are worn out and rotten in some areas and re-paint the whole roof soffit with vanish.

iii. Ceiling – Removing the old Celotex ceiling and replacing with Nu-lite ceiling (which has fire resistant properties) for paint finish. NOTE: Please check on the wiring of the lighting points within each room if there might be need for re-wring before installation of the new ceiling.

iv. Windows and doors – replace and make good all window panes/louvers as well as rotten window and door frames. Fix monkey mesh in all windows. Replace all missing locks, keys and/or handles on all doors.

v. Walls – Most exterior and interior walls are dirty and there is need to scrap off the dirt and old paint and re-paint them.

vi. Floors – There is need to hack the exiting floor and fix porcelain tiles for easy cleaning.

vii. Mechanical and Electrical fittings – replace and make good all worn out/damaged electrical and mechanical appliances/fittings with new ones. Check the wiring in the cold-room since some wires are

rotten/eaten/missing and they need to be replaced and service the cold room.

viii. Other Fittings and Furniture – Replace the old dilapidated furniture in the classroom is not in good condition.

ix. Other Works – Exterior water drains need to be un-clogged and space between the drain and the building need to be plastered to a slope.

VETERINARY CLINIC

f. Rehabilitation of Veterinary Clinic at NRC- will also involve the rehabilitation of the following elements;

i. Existing IBR roofing sheets – replacing most of the worn out sheets (or paint is peeling off) and sealing off all leaking spots within the roofing area. Checking the roof structure in case there might need to replace old timber rafters with new ones.

ii. Roof Soffit – replace and make good all soffits which are worn out and rotten in some areas and re-paint the whole roof soffit with vanish.

iii. Ceiling – Removing the old Celotex ceiling and replacing with Nu-lite ceiling (which has fire resistant properties) for paint finish. NOTE: Please check on the wiring of the lighting points within each room if there might be need for re-wring before installation of the new ceiling.

iv. Windows and doors – replace and make good all window panes/louvers as well as rotten window and door frames. Fix monkey mesh in all windows. Replace all missing locks, keys and/or handles on all doors.

v. Walls – Most exterior and interior walls are dirty and there is need to scrap off the dirt and old paint and re-paint them.

vi. Floors – There is need to hack the exiting floor and fix porcelain tiles for easy cleaning.

vii. Mechanical and Electrical fittings – replace and make good all worn out/damaged electrical and mechanical appliances/fittings with new ones. Check the wiring for power and lights since some wires are rotten/eaten/missing and they need to be replaced and service the cold room.

viii. Others Services - Assess and maintain the plumbing system in the clinic. Replace all worn out sinks and taps with new ones. In the toilets and bathrooms there is need to fix new toilets and new showers as well as install wall as well as floor tiles.

ix. Other Fittings and Furniture – Provide new furniture for the offices in the Clinic.

x. Other Works – Exterior water drains need to be un-clogged and space between the drain and the building need to be plastered to a slope.

All classrooms. Lecture theatres and Lecture rooms should be complete with ceiling mounted LCD and white-felt boards

PROPOSED LOCATION FOR FOOD PROCESSING PLANT – on the road to Mitundu Trading Centre close to Bunda Filling station - Bunda College of Agriculture

PROPOSED NEW SITE
AT BUNDA - LUANAR

THE FINAL PROPOSED LOCATION OF THE FOOD PROCESSING PLANT – Department of Crop Research plot area.

Appendix 3: Other Specific Management Plans

i. Gender Based Violence (GBV) Management Plan

1. Introduction

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

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

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

1.1. Sexual Exploitation, Abuse and Harassment Management Plan

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

1.1.1. Code of Conduct

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

- Ensure requirements in Code of Conduct are clearly understood by all workers signing it.
- Ensure that the Code of Conduct is signed by all those with a physical presence at the project site.

- Ensure that all staff are trained on the behaviour obligations under the Code of Conduct.
- Disseminate conduct (including visual illustrations) at the workplace and discuss with employees.
- Ensure the code of conduct address Sexually Transmitted Diseases (STDs), and prevention of Workplace Sexual Harassment (WSH), Sexual Exploitation and Abuse (SEA), Gender-Based Violence (GBV).
- Ensure that there is a team that will implement the Prevention of Sexual Exploitation, Abuse and Harassment at Workplace procedure.

Ensure that SEAH prevention and response action plan are prepared before commencement of the construction works.

Ensure that the code of conduct include sanctions that may be applied if an employee is confirmed as a SEA/SH perpetrator; the sanctions need to be proportional to the violation.

Ensure that code of conduct be a part of the employment contracts.

1.1.2. Training and Awareness

Training and awareness raising is a strong step toward behaviour change. In order to properly address sexual exploitation, abuse and harassment at workplace, the contractor should ensure that all workers, managers and junior staff are trained and sensitized on the issues. The training and sanitization should also target sub-contractors and suppliers including their workers. The contractor can incorporate Sexual Exploitation, Abuse and Harassment training into the regular Occupational Health and Safety toolbox talk with workers, or it can be a standalone training. The contractor should ensure that training on SEA/SH is thorough and proportional to the SEA/SH associated risk. During project implementation, the contractor should ensure that SEA/SH issues have been communicated to the communities surrounding the project area so that they can learn about the roles and responsibilities of different key stakeholders involved in the project. The processes for reporting allegations of SEA/SH, and the corresponding accountability structures also need to be communicated to the communities. Training of both the communities surrounding the project area and contractor workers allow them to understand the risks of SEA/SH, as well as appropriate mitigation and response measures that have put in place. The contractor should continuously deliver an ongoing basis induction and training on preventing and managing SEA/SH.

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

The meaning of Sexual Exploitation, Abuse and Harassment and how their project can aggravate SEA/SH risks.

SEA/SH allegation reporting mechanism, accountability structures, and treatment procedures within the workplace and for community members to report cases related to project staff.

Services available for survivors of GBV.

1.1.3. Working Spaces and Safety Facilities

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

There are separate, safe and easily accessible facilities for women and men working on the site.

Locker rooms and/or latrines should be located in separate areas, well-lit and include the ability to be locked from the inside.

There is visibly display signs around the project site (if applicable) that signal to workers and the community that the project site is an area where SEA/SH is prohibited.

As appropriate, ensure public spaces around the project grounds are well-lit.

If workers are accommodated, the facilities that are provided need to consider a safe space for men and women, for example, separate accommodation and wash facilities.

1.1.4. Reporting Mechanism and Service Provision

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

There is an ethical and safe process of receiving, investigating and addressing all allegations of SEA/SH among workers or surrounding communities.

There is procedure on how the information will be provided to employees and the community on reporting cases of SEA/SH.

There is more than one channel of reporting SEA/SH at workplace, for instance the use of whistle-blower.

There is procedure of keeping survivor information anonymously.

There should be proactive and ongoing awareness raising of the reporting mechanism and how to access it.

The investigation and response procedures following a report should be clear, and essential services for survivors should be in place. For example, GBV services, health services, and psychosocial support.

Workers' GRM has been prepared which includes procedure for handling SEAH related allegations.The GRM should include processes to refer complaints to the project General Manager.There is a contact person/expert for SEAH aspects; he/she should be trained on how to collect SEA/SH cases confidentially and empathetically.All SEAH related incidents or allegations are reported immediately (within 24hrs) to the supervision engineer.

1.1.5. Confidentiality

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

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

1.2. Legislations Related to Gender Based Violence (GBV)

This section describes legislations applicable to Gender Based Violence issues of the proposed construction projects at Bunda.

1.2.1. The National Gender Policy (2015)

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

development and implementation of the gender policy in order to address such gender imbalances and other related issues.

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

1.2.2. National HIV and AIDS Policy (2012)

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

1.2.3. The National Gender Equality Act (2013)

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

Therefore, when employing people for the implementation of the project activities, the Contractor and the Client will have to ensure that the provisions of this Act are complied with to ensure gender equality in all

spheres of socio-economic development. It also emphasizes non-discrimination in labour practices and opportunities, including non-discrimination of physically challenged persons among the categories of vulnerable groups.

1.2.4. The Employment Act (1999)

The Employment Act of 1999 reinforces and regulates minimum standards of employment with the purpose of ensuring equity necessary for enhancing industrial peace, accelerated economic growth and social justice; and for matters connected therewith and incidental thereto. Relevant to the proposed SAVE project at Bunda is the set of minimum wage, fair labour practices, non-discrimination, equal remuneration, and prohibition of employment of children. When employing people for the implementation of the project activities, the developer will ensure that the provisions of this Act are complied with.

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

1.3. Conclusion

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

ii. Workers Grievance Redress Mechanism (GRM)

The SAVE Grievance Redress Mechanism states that typical grievances that are anticipated from the implementation of project include complaints about identification of TEVET students, HE students, TEVET trainers, HE lecturers, delayed wage payments in civil works, poor service delivery including delays, unfair treatment by project staff, lack of information, loss of property, disruption of access paths, corrupt practices, Human rights violations, Sexual exploitation and abuse, child

labour and occupational safety issues, gender based violence and sexual exploitation and abuse. It further states that Legitimacy, Accessibility, Predictability, Fairness, Rights Compatibility, Transparency and Capability are the key tenets that will underpin the grievance redress mechanism for the Project.

It is acknowledged that any project may bring conflicts amongst the developer and the affected people or local people where the project is proposed. Conflicts may also arise amongst project workers. A specific Workers grievance redress mechanism should be developed for this project to address any conflict or complaints as outlined below.

The grievance redress procedure for Bunda construction Project shall follow a set procedure from lodging of a grievance to its redress. If the Project Affected Person (PAP) is not satisfied with a decision at the end of the process, the complainant will be free to take the grievance to a court of law, as a last resort. However, the complainant is informed that to do so will be at their own expense, unless the court awards damages to the complainant. The decision of the court of law will be final.

The grievances redress mechanism for Bunda construction Project should be comprised of a phone number and a desk officer at Bunda who will receive the complaints on behalf of a set committee. The general approach is to seek a solution to the problem at the earliest stage to avoid taking complaints to courts for redress. The following are considered when applying this approach:

a) Provide straightforward and accessible ways to affected people for making complaints or resolving any disputes that may arise due to the project activities;
b) Identify and implement appropriate and mutually acceptable actions to address complaints;
c) Ensure that complainants are satisfied with outcomes of the corrective actions; and
d) Avoid the tendency to resort to judicial proceedings.
e) Time Frames for each process below should to be decided by the Committee

Grievance Redress Process

Process	Description	Other information
Identification of grievance	Face to face; phone; letter, e-mail; recorded during public /community interaction; others	Email address; hotline number
Grievance assessed and logged	Significance assessed and grievance recorded or logged (i.e. in a reporting book)	Significance criteria: Level 1–one off event; Level 2 – complaint is widespread or repeated; Level 3- any complaint (one off or repeated) that indicates breach of law or policy or this ESMP provisions
Grievance is acknowledged	Acknowledgement of grievance through appropriate medium	NA
Development of response	Grievance assigned to appropriate party for resolution	NA
Response signed off	Redress action approved at appropriate levels	Project staff to sign off
Implementation and communication of response	Redress action implemented and update of progress on resolution communicated to complainant	NA
Complaints Response	Redress action recorded in grievance resolution book Confirm with complainant that grievance can be closed or determine what follow up is necessary	NA
Close grievance	Record final sign off of grievance. If grievance cannot be closed, return to step 2 or refer to recommend third-party for arbitration or resort to court of law.	Final sign off by Contractor and staff in liaison with Bunda management

Procedure for Receiving and Responding to Complaints, Grievances, Appeal and Claiming Process

The grievance mechanism will be disclosed to all staff through information leaflets and sensitization meetings. All types of grievances will be received by a designated official in person for sorting and processing and providing feedback. Complaints forms will be found at Contractor's Site Office and complaint boxes to be located designated

site. The Contractor should provide the details of the procedure for processing the complaint/grievance.

iii. Code of Conduct (CoC) for Project Workers

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

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

- Ensure that the code of conduct be a part of the contracts for local people.

iv. Child Protection Management Plan

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

The objective of this child protection plan is to:

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

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

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

Contents of the plan

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

v. COVID 19 Construction Sites Prevention Guidelines

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

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

vi. Traffic Management Plan

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

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

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

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

a. Presence of a Site Road Map:

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

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

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

b. Pedestrian Safety:

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

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

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

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

c. Traffic Safety and Control:

i. There should be specific indication in site layout plan about general traffic control in the project area, and

specific work sites that may require specific traffic control.

ii. The contract is supposed to install road message signs (sign posting) to warn possible traffic congestion at work area.

iii. If possible, the contractor should allocate time slots and schedules for construction vehicles to avoid haphazard way of operating with the heavy construction vehicles. And further, all demolition and excavation will be adhering to the allocated time slots to avoid traffic congestion.

iv. Road closures of short durations must be done where possible only during non-peak hours, for example during afternoon.

v. The road closures must be initiated in a manner that allows the traffic to slow down at least 500 m ahead of such closures.

vi. In cases of road closures, alternative traffic route should be provided to control traffic congestion and public inconvenience.

vii. All detour must include following requisites:

- The nearby community members must be informed prior to detouring the road by the contractor. Tentative timeline of such detours must also be provided to the community members.
- Location of access roads /detours shall be done in consultation with the local community especially in important and sensitive environments such as school crossing, markets etc.
- Traffic divergent should be demarcated through appropriate informatory road signs. Such detours should also have adequate safety measures such as temporary signaling system, warning signs and regulatory signs, humps.

d. General Traffic Accident Prevention Measures:

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

i. All the drivers must be fully sensitized about the speed limits and the need for strict compliance to the safety rules.

ii. Regular speed monitoring of construction vehicles respective to the guidelines need to be conducted.
iii. All traffic related issues should be recorded on daily basis. Action should be taken to avoid any disturbances to the public immediately by the Project Contractor. When road accidents it has to be reported to the relevant authority.

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

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

vii. Labour Management Plan

1.0 Introduction

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

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

2.0 OBJECTIVES OF THE LABOUR MANAGEMENT PLAN

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

- To promote appropriate labour practices which include non-discrimination and equal employment opportunity to all eligible community members;
- To promote safety and health at work;
- To protect project workers, including vulnerable workers such as women, students, persons with disabilities, migrant workers, contracted workers and community workers.
- To prevent the use of all forms of forced labour and child labour;

- To support the principles of freedom of association and collective bargaining of program workers in a manner consistent with national law; and
- To provide project workers with accessible means to raise workplace grievances.

3.0 ANTICIPATED LABOUR USE IN THE PROJECT

Users of the LMP

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

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

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

Characteristics of Project Workers

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

Direct Project Workers (Government workers)

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

Contracted Workers and Short-term Consultants

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

Primary supply workers

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

4.0 POTENTIAL KEY LABOUR RISKS

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

- Occupational Safety and Health risks during construction and operation;
- Noncompliance with labour laws and regulations by the contractors;
- Gender Based Violence GBV
- Violence against Children; (Child labour, Defilement, Child Marriage)
- Risk of contracting diseases such as COVID-19, Cholera, HIV and AIDS and STIs
- Risk of exposure to hazardous materials and wastes
- Risk of excess exposure to noise and vibrations
- Discrimination and exclusion of vulnerable groups;
- Labour conflicts and work conditions.

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

Table 1: Possible Mitigation Measures for the Potential Labour Risks

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

Item	Potential Risks	Mitigation measures
		• Provide clean eating areas. • Provide adequate lavatory facilities. • Eliminate unusable impounded water. • Ensure all rooms at workplace are well ventilated.
5	Non-compliance with labour laws and regulations by Contractors	• Contractors should sign a Code of Conduct before commencement of construction works. • Sensitize workers on labour related issues and regulations.
6	Increased risk of influx of migrant workers – Competition over local resources	• Engage all non-skilled labour force from surrounding communities to minimize the risk of migrant workers and associated negative impacts.
7	Gender Based Violence	• Sensitize workers, staff and surrounding communities on dangers and prevention of Gender Based Violence. • Provide equal employment opportunities. • Prepare, adopt and implement worker's code of conduct.
	Sexual Harassment and Rape	• Community sensitization on issues of Sexual harassment. • Community sensitization on issues of GRM existence and implement a Workplace Policy on Sexual Harassment
8	Violence against Children	• Sensitization on issues of violence against children. • Employ people that are aged 18 and above; and • Restrict workers from buying merchandise from children
	Child labour	• Community sensitization on issues of Child labour. • Not engaging students in construction related activities.
	Child marriage	• Community sensitization on issues of Child marriage • Put in place child marriage reporting mechanisms.
9	Sexual Exploitation and Abuse – Both for workforce and local communities, particularly under aged girls	• Contractor shall have GBV/SEA Action plan. • Carry out community sensitization, women and girl's empowerment and implement workers code of conduct.
10	Discrimination and exclusion of vulnerable groups;	• Implement a deliberate work policy for gender equality. • Develop deliberate mechanism to monitor participation of vulnerable groups in all activities.
11	Labour disputes and conditions of employment.	• Establishment of Grievance Redress Mechanism (GRM), and Development of LMP.
12	Increased competition over resources due to influx of labour	• Employ more locals

Item	Potential Risks	Mitigation measures
13	Risk of exposure to hazardous materials and wastes	• Avoiding and minimize the use and release of hazardous materials. • Preventing uncontrolled releases of hazardous materials to the environment e.g. paint, oils and etc. • Conducting hazard communication and training programs
14	Risk of exposure to excess noise and vibrations	• Ensure exposure to noise by workers should not exceed 85 dB (A) for a duration of more than 8 hours per day without hearing protection. • Use of low vibration and noise production equipment. • Install vibration dampening pads or devices, • Limit duration of vibration exposure per individual worker

5.0 RESPONSIBILITIES AND REPORTING OHS INCIDENTS AND ACCIDENTS

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

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

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

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

6.0 AGE OF EMPLOYMENT

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

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

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

viii.Workers Grievance Redress Mechanisms

The Contractor should form a Workers Grievance Redress Mechanism Committee (WGRMC) which should be in line with the SAVE project GRM. This committee shall work in liaison with the College's GRM committee which is in Appendix 14 where necessary. This will ensure that project workers have opportunity to lodge complaints when and if they arise. All workers shall be informed of the WGRMC and the procedures to be involved. This committees will ensure the fair resolution of all issues within the prescribed timeframes. The WGRMC will handle all work-related grievances arising from project implementation. Examples of Grievances that may come from workers include: **1)** Unfair dismissal from work and discrimination, **2)** Suspected corruption and theft cases. **3)** Lower and delayed wages, **4)** Long working hours, **5)** Violence against children and **6)** Gender based violence and Sexual exploitation

WGRM Stages

The grievance procedure should have five major stages as follows:

Stage 1: Complaint Uptake
Stage 2: Assessment, Analysis and Response
Stage 3: Resolution and Closure
Stage 4: WGRM Registry
Stage 5: WGRM Evaluation

It is acknowledged that any project may bring conflicts amongst the developer and the affected people or local people where the project is proposed. Conflicts may also arise amongst project workers. A grievance redress mechanism has been developed for this project to address any conflict or complaints as outlined below.

The grievance redress procedure for Bunda construction Project shall follow a set procedure from lodging of a grievance to its redress. If the Project Affected Person (PAP) is not satisfied with a decision at the end of the process, the complainant will be free to take the grievance to a court of law, as a last resort. However, the complainant is informed that to do so will be at their own expense, unless the court awards damages to the complainant. The decision of the court of law will be final.

The grievances redress mechanism for Bunda construction Project shall comprise of a phone number and a desk officer at Bunda who will receive the complaints on behalf of a set committee. The general approach is to seek a solution to the problem at the earliest stage to avoid taking complaints to courts for redress. The following are considered when applying this approach:

f) Provide straightforward and accessible ways to affected people for making complaints or resolving any disputes that may arise due to the project activities;
g) Identify and implement appropriate and mutually acceptable actions to address complaints;

h) Ensure that complainants are satisfied with outcomes of the corrective actions; and
i) Avoid the tendency to resort to judicial proceedings.
j) Monitor the compensation activities to ensure fair and just compensation

Strengthening of the Bunda Grievance Redress Committee

The project shall use the existing Grievance Redress Committee (GRC) for the purpose of handling grievances related to environmental and social concerns. The GRC is an ad hoc institution established primarily for the college's projects but with no legal mandate and shall adopt the Grievance Redress Process of SAVE project and experience from other projects within the country. The primary objectives of the GRC are to:

a) Help Bunda to ensure that project implementation timelines are not Compromised due to delays in resolving grievance; and
b) Help cut down on lengthy and expensive litigation that affected people might have to indulge.
c) The composition of the existing GRC is provided in Appendix 14.

The Contractor should outline in the WGRM the timelines, frequency of meetings, procedure for receiving and responding to Complaints, Grievances, Appeal and Claiming Process. The committee will be responsible for submission of reports to PIU and Bunda GRMC.

ix.Waste Management Plan (WMP)

Introduction

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

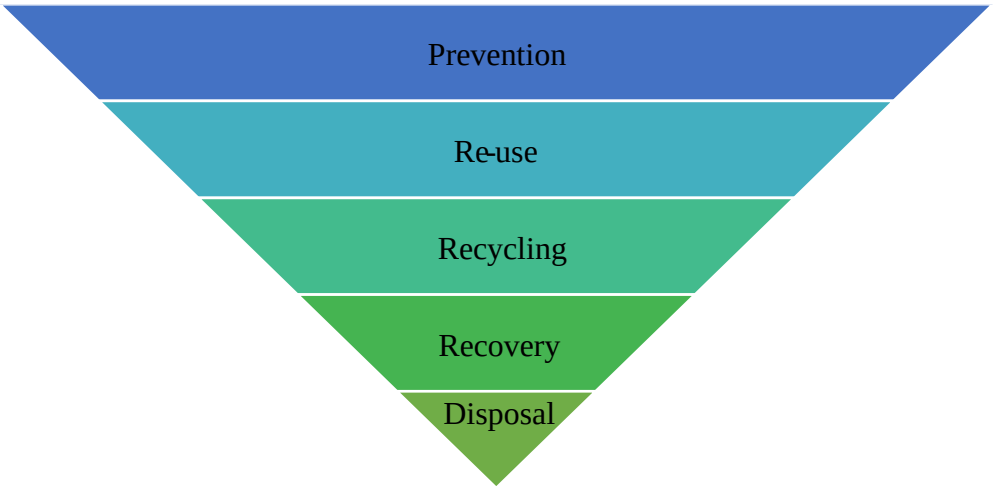
The WMP covers the construction phase of the project. This report constitutes minimum requirements and general guidance which may be customized by the contractor to meet contract requirement and project content during the construction phase of the project.

Purpose

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

Waste Management Options - Waste Hierarchy

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



Waste Management Hierarchy

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

Prevention

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

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

Re-use

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

Recycling and recovery

Contractor(s) should seek to turn waste into a new substance or product, such as composting of organic wastes to a standard that meets quality controls. This compost could be sold or given to farming communities around the construction and operations sites to facilitate improvements in soil conditions and hence their production levels. Contractor(s) can also use demolition waste as a construction material like aggregate for concrete. In addition, construction and demolition waste can be used as a fill material within the project area.

Disposal

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

Waste Categories Generated in the Project

Solid waste generation in the Project will generally include:

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

Solid Waste Management at the Project Sites

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

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

Collection of the segregated waste is to be undertaken by an authorised waste collector. As a minimum wet and dry wastes should be segregated (2-bin system) by the waste generators, see Figure below. Source segregation of waste optimises waste processing and treatment technologies. The bio-degradable waste should be processed, treated and disposed of through composting within the project areas.

Example of waste separate of inorganic and organic wastes at source

Construction and demolition waste should be stored separately. Opportunities to repurpose this waste as secondary aggregate to the construction industry should be investigated to ensure this waste is either utilised in the Project Sites or is sold as a product to the construction industry. No construction or demolition waste should be disposed of to

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

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

Liquid Waste Management in the Project Sites

The Contractor(s) should provide permanent septic tanks to for wastewater storage and treatment. Upon completion of the project activities these septic tanks should be connected to the ablutions to be used by staff at the water treatment plant, booster stations and commuter facility. The Contractor(s) should also provide mobile toilet for collection of human excreta at the construction sites. When the fill up, the mobile toilets to be emptied by a licensed/registered specialist service provider for discharge into the septic tanks. Alternatively, the specialist service provider can transport the faecal sludge to treatment facilities in Lilongwe City.

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

Waste Management Monitoring

Inspections

Site inspections must be performed on regular basis by the Health, Safety and Environment (HSE) personnel from the Bunda and Lilongwe District Council. Inspections will ensure that all commitments in this Waste

Management Plans are being enforced and that specific waste management elements are verified.

Data Collection

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

Waste Audit

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

Performance Indicators

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

Environmental Audit Results

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

Percentage Waste Generated

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

Waste collection Percentage

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

Responsibilities

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

Roles and Responsibilities

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

Record Keeping

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

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

Occupational Health and Safety Management Plan (OHSMP)

Introduction and Objective of the Occupational Health & Safety Management Plan

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

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

Implementation of Management Measures

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

i. Construction site Safety and Security

The contractor should ensure safety to the sites through:

- Planning on having designated passages for heavy vehicles that will be prohibited to pedestrians, and where necessary provide separate doors or gates to achieve this segregation;
- Passageways for pedestrians and vehicles within and outside working premises would be segregated and provide for easy, safe, and appropriate access;

- Provide measures to prevent unauthorized access to dangerous areas;
- Ensure there that vehicles loading and offloading areas or bays are restricted areas;
- Ensure that there is proper signage installed as part of hazard awareness in order to avoid accidents;
- Ensuring that construction site hoarding fences are provided;
- Ensure that appropriate safety signage is provided for in all risky areas;
- The contractor to ensure that tasks based risks assessments are undertaken; and
- Use of breathalysers site entrance to monitor worker's alcohol content to avoid accidents that may arise due to working while drunk.
- Ensure that all workers sign code of conduct (heath and safety provisions) as part of the employment contract
- Ensure all workers have required PPE and use of PPE will not be a substitute of control measures as per mitigation hierarchy
- The contractor should perform risk assessment at commencement of the construct phase, prepare risk register and identify measures to reduce the risk to acceptable level. The risk register should be updated from time to time
- The contractor will ensure that all workers are provided with required PPE and no workers are allowed to work without PPE
- The contractor will prepare Code of Conduct with clauses on health and safety and all workers are required to sign it as part of employment contract

ii. Site Induction and training

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

- Ensure new workers are briefed on the site safety rules including the site logistics plan, hazards, evacuation procedures, colour coding, emergency and first aid procedures (identity of first aider, location of first aid kit and first aid room), and the duties and responsibilities of all persons on site

- Ensure visitors should be given a brief site induction (based on an either oral or written Visitor's induction) and should be accompanied at all times during their visit to the site
- Ensure that all visitors are given the right Personal Protective Equipment before accessing to the site
- Ensure that workers carrying out safety critical tasks have the necessary qualifications and/or on the job training for the tasks they carry out
- Induction should cover at least the following items:

Welfare

The contractor should inform the workers the welfare services offered.

Sanitation facilities

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

Access to Sanitary Conveniences

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

Drinking water

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

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

Accommodation rooms

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

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

Lighting

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

Raw material Storage, Waste Disposal and labelling

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

- Ensure walkways free of tripping hazards such as trailing cables, building materials and waste. There is need to ensure that all flammable waste materials are cleared away regularly to reduce fire risks;
- Follow the information on Material Safety Data Sheet in order to rightly store the chemicals and dispose of the waste after use;
- Keep inside floor areas clean and dry;
- The contractor should designate storage areas for materials, waste, flammable substances (e.g. foam plastics, flammable liquids and gases such as propane) and hazardous substances;
- The contractor should ensure storage of hazardous/flammable substances: is securely fenced, ventilated, separated from other parts of the site, not near emergency exits, accessible to fire fighters, properly marked/signed and with two escapes routes

- Storage of Highly flammable substances at the construction site should be avoid, if not possible should not exceed 50L and stored in a well-ventilated area
- Do not store materials where they obstruct access routes or where they could interfere with emergency escape;
- Keep all storage areas tidy, whether in the main compound or on the site itself;
- The contractor need to decide on how the waste stream will be managed to ensure it is timely and effective. The contractor will take the responsibility of collecting waste and ensure are disposed of according to national requirements and international best practice as outlined in the ESMP;
- Ensure hazardous wastes are stored in separate receptacles with proper labelling; and
- Ensure piping systems that contain hazardous substances are labelled with the direction of flow and contents of the pipe, or colour coded whenever the pipe passing through a wall or floor is interrupted by a valve or junction device.

Emergency and Response Plan and Procedure

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

- the type of work being done on site such as excavation works;
- the plant and equipment being used which may obstruct emergency route;
- the number of people likely to be present on the site at any one time help to determine escape route;
- the physical and chemical properties of substances or materials on or likely to be on the site;
- Arrangements for treating and recovering injured people are available; and **t**he communication system during emergency.
- Safety message to be used e.g. get out and stay out
- Ensure assembly point is designated and clearly marked

- Conducting emergency drill to test overall effectiveness of the procedures
- Emergency procedures need to be proportionate to risk

Traffic Management Plan

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

Fire

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

- Ensure that there is good housekeeping and site tidiness
- Ensure that site rules are adhered to by all workers and visitors such as avoiding smoking in non-smoking area
- Ensure that flammable substances, solid, liquid and/ or gases should always be stored separately
- Obtain storage permit for keeping flammables and explosive goods such as fuel
- Restrict work activities involving potential ignition to take place near to any inflammable object within work site, for example use water-based or low-solvent adhesives and paint
- Keep the quantity of flammables at the workplace to a minimum
- Always keep and carry flammable liquids in suitable closed containers
- Check the site at lunch time and at the end of the day to see that all plant and equipment that could cause a fire is turned off
- Ensure that right fire extinguisher is be placed at the right place e.g. water extinguisher for fire burning combustible material such as wood, paper and clothes

- Ensure that fire and emergency alarm systems that are both audible and visible are in place.
- Ensure that fire risk assessment at the campsite is conducted, fire hazards and associated risks identified and control measure (preventive and mitigate actions) to reduce the risks proposed
- Ensure safe means of escape from buildings are provided, well-marked and not obstructed
- Ensure safe assembly point is provided at campsite and free from obstruction

First Aid

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

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

The First aid kit should consist of the following:

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

Remote site should have written emergency procedures in place for dealing with cases of trauma or serious illness up to the point at which patient care can be transferred to an appropriate medical facility. The number of qualified first aiders needed depends on the risk of injury and

ill health on site. The first-aid arrangements should cover shift working, night and weekend working where this is carried out. This may mean appointing or training several people to ensure adequate cover.

Personal Protective Equipment

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

Personal Protective Equipment for Site Personnel

Protective Headwear:

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

- It is recommended to use the double chin strap headwear

Protective Eyewear:

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

Disposable Dust Masks:

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

Protective Gloves:

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

Snake Gaiter

- In situation where the workers will be working in remote areas and exposed to animal bites such as snakes, or insects it is recommended that workers are provided with snake gaiters.
- The snake gaiter should be of water resistant and one size fit all (adjustable)

Back Supports:

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

- Ensure PPE is appropriate for the risks and for the working environment
- Take account of the user's health, ergonomics, fit factors and be compatible with other items of PPE required to be worn
- Ensure PPE adequately control the risk presented by the hazard without increasing overall risk experienced by the worker.

- Be supplied free of charge if supplied for work-related health-and-safety reasons
- Ensure PPE comply with relevant legislation

Accident and Incident Reporting and Investigation

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

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

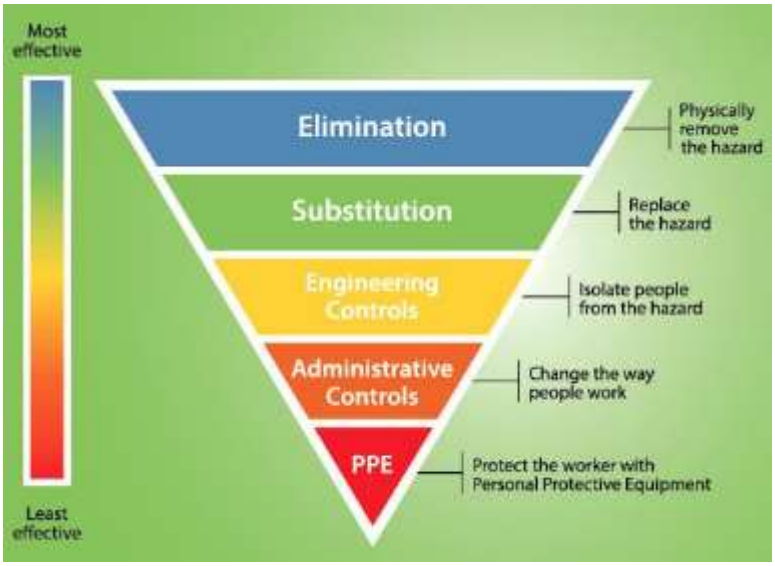
Risk Assessment

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

- Hazard identification
- Identify People who are at risk for example workers, visitors or suppliers of materials

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

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



Hierarchy of OHS Control (Source: Trinity Consultants)

Communication

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

workers working in remote areas. For internal communication, the contractor should among others include the following ways:

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

For external communication the contractor will consider the following ways:

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

Conclusion

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

Contractors Health and Safety Management Plan Acknowledgement Form

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

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

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

DATE OF ACKNOWLEDGEMENT
PART 4: DISTRIBUTION OF FORM
Forward a copy of the signed Contractor's Health and Safety Responsibilities Acknowledgement Form to the Project Manager. Retain original of the Form with contract documents.

Human and Safety Performance Declaration

Contractor's Name: ……

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

RFP No. and title: Reference No: ……..

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

Sign: …….

Date: ……..

x. Environmental Social Commitment Plan (ESCP)

An Environmental and Social Commitment Plan (ESCP) sets out material measures and actions to be carried out or caused to be carried out by the Recipient, including the timeframes of the actions and measures, institutional, staffing, training, monitoring and reporting arrangements, grievance management. The contractor should refer to the template for the World Bank at the following site.

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

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Appendix 4: Detailed Architectural Designs – PLEASE DOUBLE CLICK TO OPEN or Click Here

PROPOSED DRY FOOD PROCESSING FACILITY

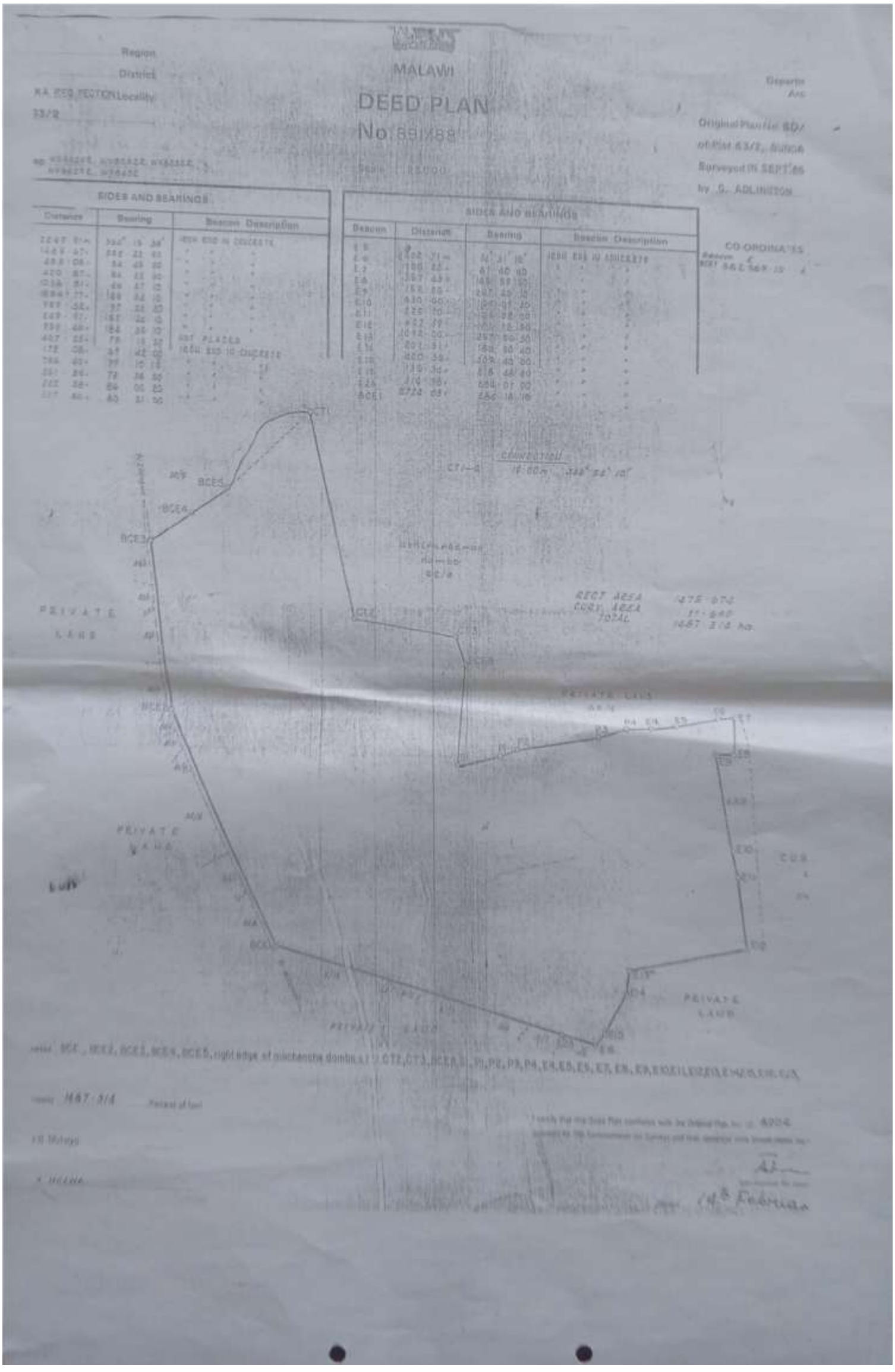
FOR

LILONGWE UNIVERSITY OF AGRICULTURE AND NATURAL RESOURCES

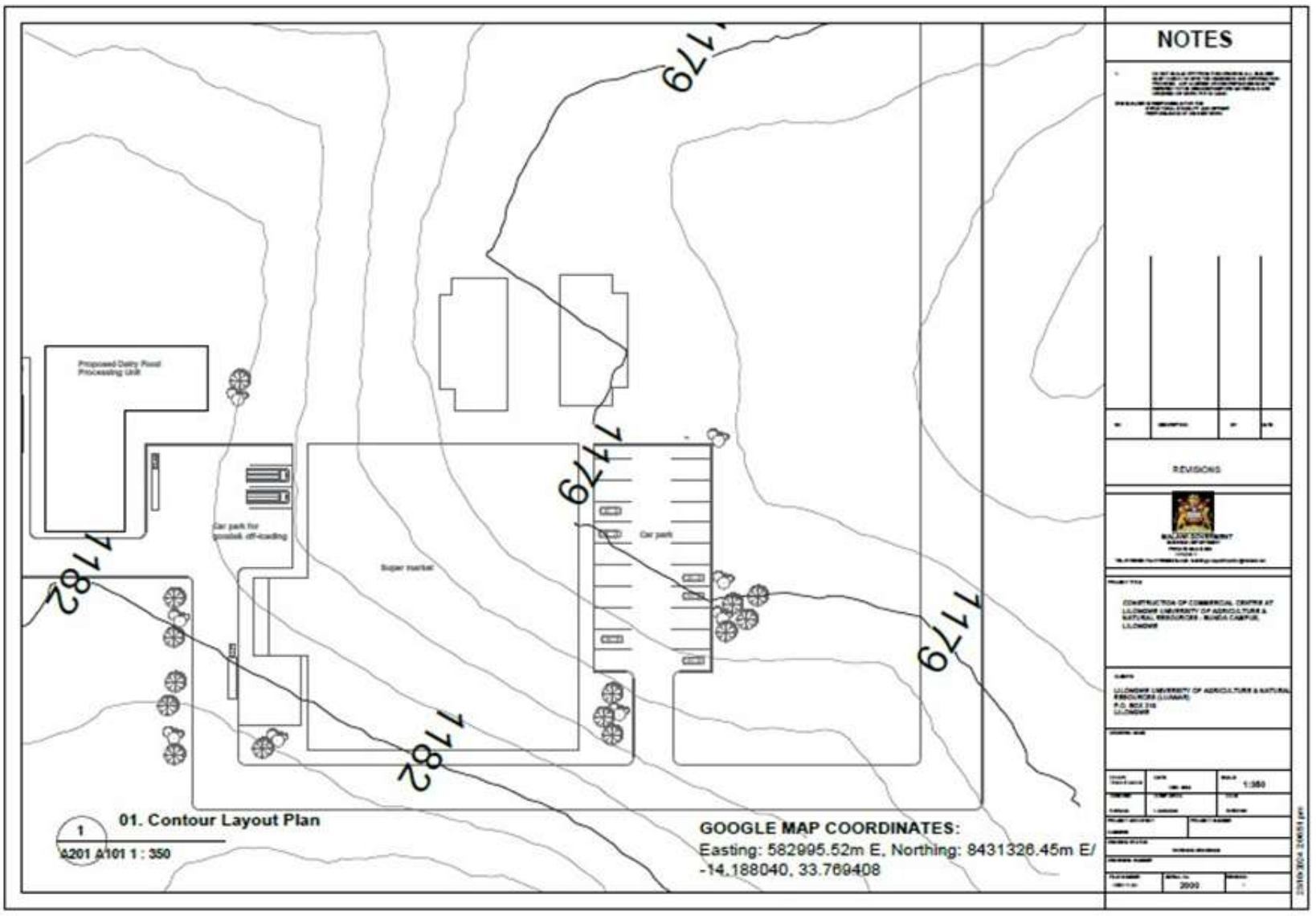
BUNDA CAMPUS

FORM D GRAPHICS

Appendix 5: Title Deed of Bunda College



Appendix 6: Topographic Maps showing location of The Food Processing Plant



Appendix 7: Malawi Policy and Legal Framework

Piece of Legislation	Description	Relevance to Project Activities
Applicable Policies		
National Environmental Policy (2004)	The policy provides strategies for environmental and social planning, environmental and social impact assessment, environmental and social audits, and environmental and social monitoring, among others. On ESIAs, the objective is to regularly review and administer the guidelines for ESIAs, audits, monitoring, and evaluation so that adverse environmental and social impacts can be eliminated or mitigated and environmental and social benefits enhanced.	Project activities will integrate environmental and social management and protection during project planning and implementation.

Piece of Legislation	Description	Relevance to Project Activities
Environmental Management Act (2017)	The Act is the main law for environmental protection and sustainable resource use. Section 7 establishes MEPA and its authority over environmental assessments. Section 31 provides requirements for MEPA approval for projects needing an ESIA. Sections 99-104 prescribe penalties for ESIA non-compliance, hazardous substance mismanagement, and pollution, including fines of up to fifty million Kwacha and imprisonment of up to fifteen years.	The proposed works will comply with Malawi's 2017 Environmental Management Act, ensuring MEPA approval for ESMP, adherence to environmental standards, and avoidance of non-compliance penalties.
National Gender Policy (2015)	The National Gender Policy provides guidelines to reduce gender inequalities, promote participation, and achieve equitable development. Section 1.3 offers guidelines for integrating gender considerations, while Section 3.6 focuses on	This act can be highly relevant to project activities in establishing relevant plans for mitigating gender-specific risks. Project impacts can affect men and women differently

Piece of Legislation	Description	Relevance to Project Activities
	fostering economic development and the empowerment of women. Section 3.7 recognizes that GBV, especially violence against women, girls, and vulnerable groups, severely impedes social well-being and poverty reduction.	i.e. influx of labour might increase risks related to GBV, SEA or SH which may affect a more vulnerable group.
National Water Policy (2005)	Section 1.3 of the National Water Policy explains that the policy provides an enabling framework for integrated water resources management in Malawi. Section 3.4.9 stresses that Pollution control of water resources shall adopt the 'Polluter–Pays' principle to ensure water user's responsibility. Section 5 points out that environmental	The project activities have the potential to negatively affect the water resources of the rivers in the project area. It is therefore recommended that the project's activities be implemented in a way that minimizes public water

Piece of Legislation	Description	Relevance to Project Activities
	degradation has negatively affected surface and groundwater quality, among other factors. Section 5.2.2 - Ensuring and promoting proper management and disposal of wastes.	pollution, thereby enhancing public health, hygiene, and environmental sustainability.
National Sanitation Policy (2008)	The National Sanitation Policy provides a vehicle to transform Malawi's hygiene and sanitation situation. Section 3.1.1 promotes the improvement of hygiene, sanitation, and waste recycling in the country.	The proposed project will ensure that liquid and solid waste management encourages waste reduction, recycling, and reuse before final disposal, complying with the policy's provisions.
National HIV and AIDS Policy (2005)	The policy aims to prevent HIV infections, reduce vulnerability, improve treatment and support for those living with HIV/AIDS, and mitigate its socio-economic impact. Chapter 7 addresses	The proposed project will implement an HIV/AIDS policy and support program, ensuring no pre-employment HIV testing or

Piece of Legislation	Description	Relevance to Project Activities
	HIV/AIDS in the workplace, highlighting issues like absenteeism, low productivity, and discrimination.	discrimination based on HIV status. Employees will not be forced to disclose their HIV status, and any voluntary disclosures will remain confidential.
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	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.

Piece of Legislation	Description	Relevance to Project Activities
	employment opportunities, mainly due to discrimination, inadequate education, job experience, and confidence.	
National Energy policy (2018)	The National Energy Policy Section 2.1 provides the goal of the policy: "To increase access to affordable, reliable, sustainable, efficient and modern energy for every person in the country." Section 1.3 provides guiding principles of the policy, including energy efficiency and conservation and promotion of private sector investments. Energy efficiency is a priority area as it recognises the importance of security of energy supply systems. Mitigating environmental, social, safety and health impacts of energy production and utilization is a key part of the policy. The policy's	Guided by this policy, the project can be more energy-efficient, cost-effective and environmentally sustainable

Piece of Legislation	Description	Relevance to Project Activities
	relevance to the road construction project in Malawi will be indirect but still significant, focusing on the project integrating energy-efficient technologies and practices that can align with national energy goals.	
National Agriculture Policy (2016)	The Policy discusses value addition to agricultural products through mechanisation	Sustainability and linkages to the broader agricultural sector including markets and raw materials
Applicable Acts		
Constitution of Malawi	The Constitution includes provisions emphasizing environmental protection and sustainable management of natural resources. Specifically, in Chapter III, Section 13(d), it outlines a	The project will ensure that it upholds Malawi's commitment to sustainable development, public health, and educational growth

Piece of Legislation	Description	Relevance to Project Activities
	responsibility for the state to manage the environment for the benefit of present and future generations. This includes preventing environmental degradation, promoting conservation, and ensuring the sustainable use of natural resources.	
Disability Act (2013)	This act is a significant step towards ensuring equal opportunities and rights for persons with disabilities. Promoting policies and legislation that aim to equalise opportunities, protect rights, and fully integrate persons with disabilities into all aspects of life 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	The project will ensure that buildings, facilities, and infrastructure are accessible to all persons with disabilities. and promote equal employment opportunities for persons with disabilities.

Piece of Legislation	Description	Relevance to Project Activities
	services, and employment opportunities based on disability.	
Public Health Act (1948)	The Public Health Act of 1948 governs health-related issues, including environmental and occupational health and solid waste management. Section 59 prohibits nuisances in workplaces, such as unclean conditions, offensive odours, poor ventilation, and inadequate lighting, which endanger employee health. It also addresses the need for sanitary latrines and proper wastewater discharge. Section 88 mandates separate toilets for males and females in public buildings.	The proposed projects must ensure suitable toilet facilities for all genders, manage stormwater effectively and prevent nuisances to maintain public health and safety. Compliance with these provisions is essential for the project's success.
Occupation Safety,	The Act regulates employment conditions for safety, health, and welfare in workplaces in	Safety measures, particularly shielding and limiting radiation

Piece of Legislation	Description	Relevance to Project Activities
Health, and Welfare Act (1997)	Malawi. It mandates workplace registration, inspection of plant and machinery, and accident prevention. Part II requires workplaces to be registered with the director maintaining a register. Part III outlines employer duties, including providing safe work systems, risk-free handling of substances, and adequate employee training and supervision.	exposure, will be prioritised. Personal protective equipment will be used supplementally or in emergencies. The university must implement all ESMP safety measures.
Gender Equality Act (2015)	The Act in Chapter 25:06 promotes gender equality and equal integration of the gender issues thereby promoting empowerment, dignity, and opportunities for men and women in all functions of society, prohibits and provides redress for sex discrimination, harmful practices, and sexual harassment, provides for public awareness on the	The implication of the Act on the proposed project is that sexual harassment must be addressed by contractors holistically, including by instituting the measures prescribed by law.

Piece of Legislation	Description	Relevance to Project Activities
	promotion of gender equality and connected matters. Section 6(1) of the Act states that a person who commits an act of harassment if he or she engages in any form of unwanted verbal, non-verbal, or physical conduct of a sexual nature in the circumstances would have anticipated that the other person would be offended, humiliated or intimidated, and (2) a person who sexually harasses another in terms of the preceding subsection is liable to a fine and imprisonment specified under subsection (2).	
Environment Management (Waste Management	The regulations, under the Environment Management Act, expand on the 1948 Public Health Act. Hazardous waste is identified by categories in the Seventh Schedule and	Bunda College must manage all waste during rehabilitation, ensuring compliance with these regulations for safe storage, handling, and

Piece of Legislation	Description	Relevance to Project Activities
and Sanitation) Regulations (2008)	characteristics in the Eighth Schedule, such as corrosiveness and flammability. Section 8 mandates waste generators to safely store general waste to prevent health hazards.	disposal to protect public health and the environment.
Public Health Corona Virus Disease of 2019 (COVID-19) (Prevention, Containment and Management) Rules (2020)	Public Health rules mandate both employers and employees to implement general preventive measures, such as self-quarantine for at-risk individuals, covering mouth and nose when coughing or sneezing, avoiding touching the face, eating thoroughly cooked food, and avoiding handshakes and close contact. Employers must form a team to implement these guidelines and disseminate them to all employees. Employees must cooperate and report non-compliance.	The Ministry of Labour will inspect workplaces for adherence. The developer of the two proposed projects must ensure COVID-19 guidelines are implemented and followed by both employers and employees.

Piece of Legislation	Description	Relevance to Project Activities
Child Care, Protection and Justice (Amendment) Act (2010)	The Act in Part II, division 6 emphasizes the protection of children from undesirable practices. The undesirable practices are outlined in sections 79 and 80. Section 79 of the Act protects any child from child trafficking. Section 80 protects a child from harmful cultural practices.	The implication of the Act on the proposed project is that plans and strategies must be in place to guard against child trafficking, including through recruitment (child labor).
Penal Code, Chapter 7:01	Section 138 (1) of the Penal Code punishes the defilement of girls under sixteen years of age (punishable with life imprisonment). Sexual abuse and exploitation of children is a common practice in construction in sites.	The ESMP has articulated how project will guard against the perpetuation of the crime by project workers.
National Construction	The National Construction Industry Act of 1996 establishes the National Construction Industry Council (NCIC) of Malawi as the agency	In this project, compliance with the registration and requirements of the NCIC will be ensured. This implies

Piece of Legislation	Description	Relevance to Project Activities
Industry Act (1996)	responsible for promoting and developing the construction industry in Malawi. The Act regulates the construction industry by ensuring that all individuals and entities involved are registered and meet specific standards, promoting Malawian firms, facilitating access to resources, and maintaining safety and quality standards within the industry. The Council is responsible for promoting safety standards in the construction industry, ensuring that construction activities do not adversely affect the environment and social settings. It regulates industry activities through relevant boards and associations, enforcing environmental and social standards as part of its mandate. Additionally, the	adhering to the councils' standards, including environmental and social safeguards and quality control. Non-compliance to these standards may result in penalties.

Piece of Legislation	Description	Relevance to Project Activities
	Council standardizes quality control, contract documentation, codes of practice, procurement processes, and legal procedures, likely incorporating environmental and social safeguards.	
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	The employment Act will be highly relevant in serving as a guide that will curb issues of un-fair hiring practices, child labour, violation of workers' rights, discrimination and inequality, lack or no evidence of formal contractual obligations and poor wages and benefits.

Piece of Legislation	Description	Relevance to Project Activities
	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 will 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 will 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	

Piece of Legislation	Description	Relevance to Project Activities
	b) Prejudicial to his attendance at school or any other vocational or training programme.”	

Appendix 8: Examples of Application Forms for Permits and Licenses

Please double click on the first page of each application form to view the full form.

PP/F001

Malawi Government

PHYSICAL PLANNING ACT

APPLICATION FOR DEVELOPMENT PERMISSION

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

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

File No: ……

Application No:

The Commissioner for Planning* **Physical** Location/ Plot No:

Payment Received GR. NO.:

The Date Received:

……

……

……

……

Planning Committee*

……

(Delete whichever is not applicable)*

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

Signed: Date:

……

……

SIGNED BY REGISTERED PHYSICAL PLANNER:

LIQUID FUELS AND GAS (PRODUCTION AND SUPPLY) ACT

(Cap. 50:03)

LIQUID FUELS AND GAS (PRODUCTION AND SUPPLY)

REGULATIONS 2008 **(reg. 28)**

FIRST SCHEDULE , PART IV

APPLICATION FOR LICENCE TO STORE LIQUID FUELS AND GAS

SECTION A FORM LFG 4

PARTICULARS OF APPLICANT

A.1 Full Name of Applicant ……...

……

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

……

……

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

A.5 E-mail of Applicant ……..

A.6 Contact Person

FORM 1A

NATIONAL CONSTRUCTION INDUSTRY ACT

(CAP. 53:05)

APPLICATION FORM FOR PERMANENT REGISTRATION OF

BUILDING, CIVIL, ELECTRICAL AND SPECIALIST CONTRACTORS

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

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

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

Note: M = Million; Bn = Billion

Specialized Category	**Micro** 168	**Small**	**Medium**	**Large**
	50M	100M	500M	Unlimited

GOVERNMENT OF MALAWI
OCCUPATIONAL SAFETY HEALTH AND

WELFARE ACT

APPLICATION FOR A REGISTRATION

OF A WORKPLACE
(Section 9 of the Act)

For Official use only

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

FORM LAB/W/1

PARTICULARS TO BE SUBMITTED BY OCCUPIERS OR INTENDING OCCUPIERS OF WORKPLACES

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

1. The workplace

(a) Name of workplace _____

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

_____ Telephone No. _____

(c) Date of Occupation _____

2. The owner or Occupier

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

.....

(ii)

(iii) _____

(b) Postal address of occupier _____

.....

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

.....

_____ Email Address

(d) Nationality of occupier _____

3. Registration details

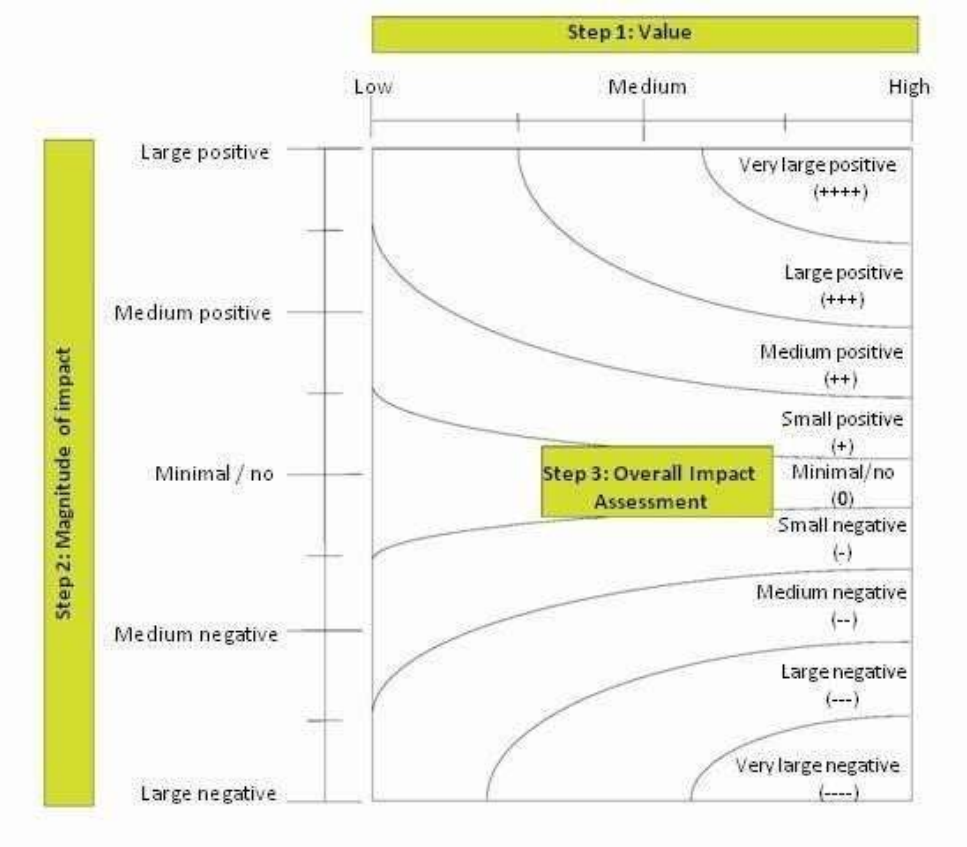
Appendix 9: Three-Step Methodology

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

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

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

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



Step 1:

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

Step 2:

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

Step 3:

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

Criteria for value

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

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

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

- Ecological function of habitats

Social criteria

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

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

Magnitude

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

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

Overall impact

Since the objective is to optimise the proposed alternative in terms of coming up with mitigation measures, the focus will be on values of uniform sub areas (e.g. biodiversity, vegetation, animals) within the project area. A summary of specific impacts on terrestrial ecology, aquatic ecology and the socio-economic environment is then be provided. These impacts will be given on a scale from large negative to large positive as shown in Appendix 7.

Appendix 10: Bunda Food Processing Plant Consultative Meetings

CONSULTATIVE MEETING REPORT ON THE IDENTIFICATION OF A NEW SITE FOR FOOD PROCESSING PLANT

REPORT ON THE IDENTIFICATION OF A NEW SITE FOR CONSTRUCTION AT BUNDA UNDER THE SAVE PROJECT

Background information

The Lilongwe University of Agriculture and Natural Resources (LUANAR) is one of the higher learning institutions implementing the Skills for a Vibrant Economy (SAVE) project. Infrastructure development is one of the areas of support for the project. LUANAR is planning to construct a School of Fashion Design at Natural Resources College (NRC) and a Food Processing Plant at Bunda. Construction sites were identified for both campuses, and Environmental and Social Management Plans (ESMPs) were developed and submitted to the bank for review and clearance.

However, only the ESMP for NRC was cleared by the World Bank. The bank identified a significant risk in the proposed location, which was situated in a wetland area. Consequently, the bank recommended finding an alternative site for the construction project.

This necessitated action by responsible IIT members, including representatives from the Faculty of Food Science and Technology (FST), the Bunda Environmental and Social Safeguard focal point, the Estates and Development Office, and the Programmes Coordinating Office. Together, they undertook the task of identifying a new site for the construction work.

The Newly Identified Site

The newly identified site is located behind the supermarket, which is currently under development. The supermarket is situated behind the Bunda Puma Filling Station, approximately 200 meters from the Bunda-Mitundu road. This site meets several criteria that make it suitable for the construction of a Food Processing Plant:

1. **Location and Accessibility**:
    - The site is easily accessible from the Bunda-Mitundu road (See Site Plan in Appendix 1)
2. **Environmental Features**:
    - The area is an open space with no existing trees, reducing the need for extensive clearing. o Two sides of the site are bounded by trees while the other sides are bordered by farming land.
    - See Appendix 2 Contour Map
3. **Current Use**:
    - The land has previously been used for farming by the Department of Crop Science
4. **Size and Suitability**:
    - The site is sufficiently large to accommodate all sections of the proposed Food Processing Plant according to the initial specifications provided by the user department.

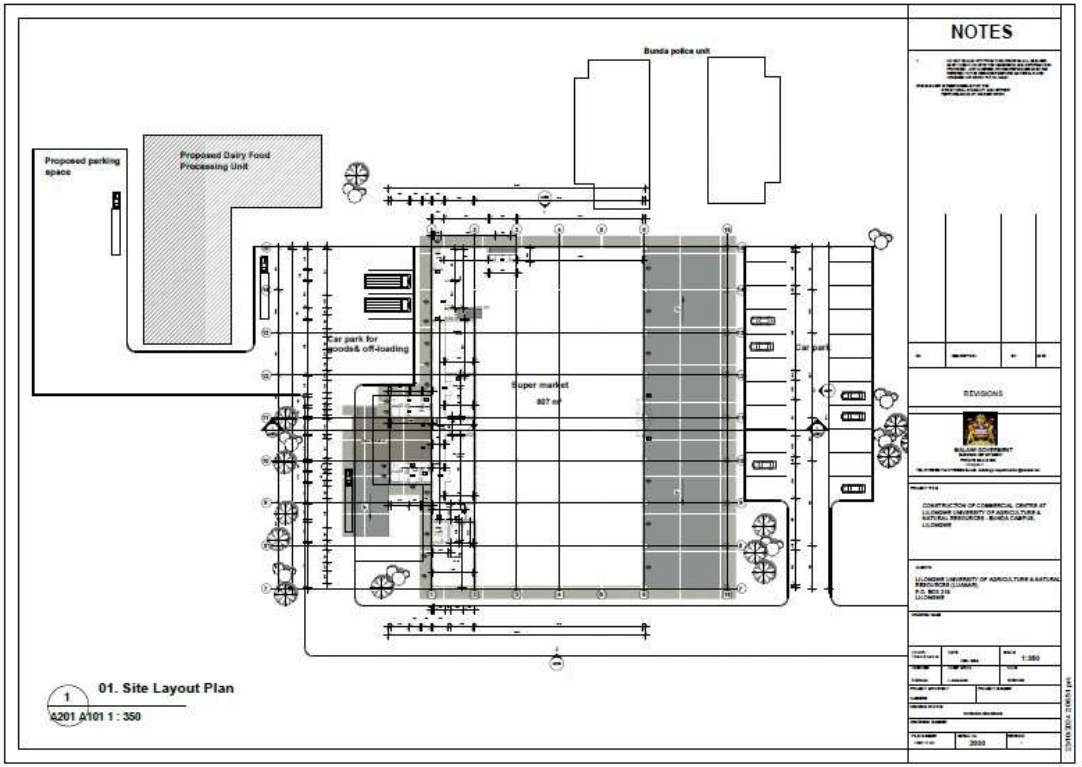
Figure 1: The identified site

Conclusion

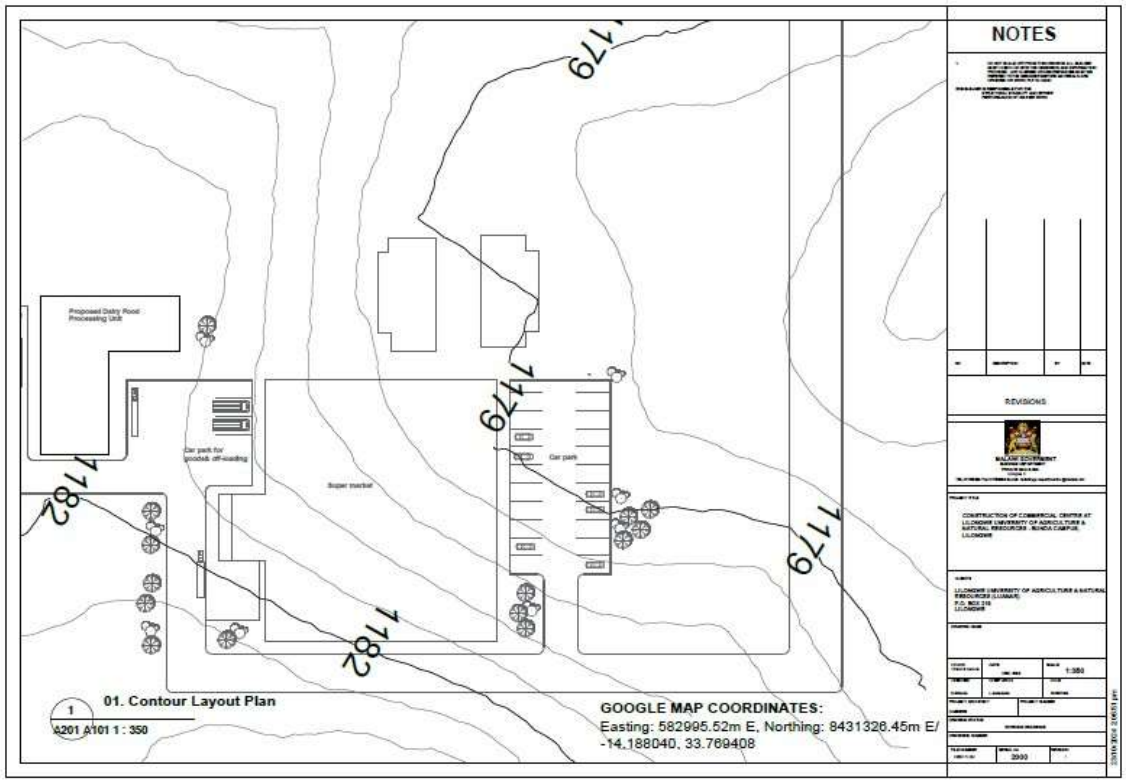
The newly identified site is ideal for the construction of the Food Processing Plant at Bunda. It addresses the concerns raised by the bank regarding wetland risks and offers a practical and sustainable solution for the infrastructure development needs of the project.

Appendix

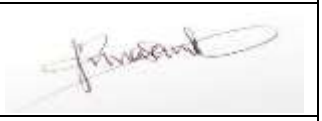
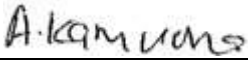
Appendix 1: Site Plan



Appendix 2: Contour map



Members present

No.	Name	Department	Signature
1	Kingsley Masamba, PhD	Food Science and Technology Department Representative	
2	Fydess Khundi-Mkomba, PhD	Environmental and Social Safeguards Focal Point	
3	Shylock Hara	Estates and Development Office Representative	
4	Alleda Kamuona	Programmes Coordinating Office Representative	

BUNDA ACADEMIC STAFF CONSULTATIVE MEETING

LUANAR - BUNDA CAMPUS - MEMBERS OF STAFF

~~MBELWA DISTRICT COUNCIL~~

ATTENDANCE FORM

DATE 12 JUNE, 2023

NO	NAME	POSITION	ORG/DEPT	CONTACT	SIGNATURE
1	Faith Nakanga	Technician	Basic Science	0888755881	[illegible]
2	Sebenzani Kasiya	Head of Dept	Agriculture Education and Development Communication	0888244224	[illegible]
3	Wonnie Mvula	Director of students Affairs	University/ABM	0999330875	[illegible]
4	Paul Fatch	Deputy Head Extension Dept	Extension	0999638938	[illegible]
5	Lumbani Banda	Technician	Environment & Natural Resources	0995654303	[illegible]
6	Chisomo Musa	Technician	Environmental Science	0999436483	[illegible]
7	Stewart Makosani	Lecturer ABM department	ABM	0882959533	[illegible]
8	Gift Chuvari	ICT	ICT	0999113020	[illegible]
9	Mary Nguwira	Secretary	CARD	0888355830	[illegible]
10	Getrude Mfune	Secretary	AGFSD	0888864184	[illegible]
11	Alledo Kamwana	Project officer	PCO	0884085820	[illegible]
12	Wandahonm Banda	M&E	PCO	0999383278	[illegible]
13					
14					
15					
16					

QUESTIONS AND COMMENTS

The meeting was aimed at getting more information on the project from the client.

CONSULTANT	**BUNDA ACADEMIC STAFF & PROJECT COORDINATOR**
1 What will be in the green house?	The green house has been confirmed to be one of the subproject and we will be waiting for confirmation for the three subprojects.
	For the designs, the Estates Development Manager will be in a position to provide specifications of the subprojects.
2 All along I have been assuming you are the counterpart but I need also confirmation that counterpart staff, who is to learn about ESMPs for Bunda? Am asking because, when the consultant goes counterpart staff follows up on ESMP environmental issues. Do you have environmental department?	Yes we have environmental department.
3. But I cannot dictate. I want a name.	Yes. We have one, Dr Ponyadira who is based at NRC but she is working as LUANAR not as NRC.
4. As Desk Officer or?	Yes as Desk Officer but also as Focal Person. Despite the fact that we have two campuses, we share staff, we share responsibilities. If there are any additional names, Dr Ponyadira will be in a position to assist.
5. Is there any opportunity for amendments after this consultation meeting?	There is an opportunity, as long as it doesn't involves changes of subproject site, that stage has already passes but for any other amendments they are still welcome.

There was not much to discuss as the participants said they don't have the subproject specifications and they were not in a position to confirm on which subprojects are to be carried on or not. They referred the consultant to the Focal Person

Then the meeting closed with a prayer.

STAKEHOLDERS ROLE AND RESPONSIBILITY – BUNDA ACADEMIC & SUPPORT MEMBERS OF STAFF

No	**DEPT**	**CONTACT PERSON**	**PHONE NO**	**ROLE TO PLAY**
1	Basic Science	Faith Nakanga	-888755881	Conducting lab practicals
2	LUANAR – Bunda	Sekanawo Kasiya	0888344234	Conduct environmental safeguards focal person

3	LUANAR – Bunda	Ronnie Mvula	0999330875	Sensitization of students\identification of needy students
4	LUANAR – Bunda	Paul Fatch	0999638978	Organising student experiments
5	Environment and Natural Resources	Lumbani Banda	0995654303	Conduct lab practicals
6	Environment and Natural Resources	Chisomo Mussa	0999436483	Conduct lap practicals
7	LUANAR – ABM	Stewart Makosani	0882939333	Sensitization of students &ABM staff
8	LUANAR – ICT	G.A	0999813020	Network engineer
9	LUANAR – CARD	Mary Ngwira	0888355820	Administrative
10	LUANAR – AGFSD	Getrude Mfune	0888864184	Administrative
11	LUANAR – PCO	W. Banda	0999383278	M & E
12	LUANAR - PCO	A. Kamuna	0884085820	Project supervision

Appendix 11: Bunda Students and Community Members (from Malichi and Chilowa Villages) Consultative Meeting held on the 12th of June 2023

MEMBERS PRESENT

NO	NAME	POSITION	DEPT	CONTACT
1	Bridget Mkandawire	Student	Environmental Sciences	0990545459
2	Priscilla Khuleya	Student	Animal Sciences	0881147146
3	Cynthia Liponda	Student	Agribusiness Management	0996906897
4	Innocent Namaona	Student	Animal Science	0996043327
5	Yamikani Mbewe	Student	Food Sconce and Technology	0980209695
6	Tuwamale Chawanda	Student	NRM	0885213003
7	Thokozani Kandaya	Student	Agriculture Extension	0885224167
8	Victoria Kaduya	Student	BSC Environmental	098555824
9	Hendreson Matiyasi	Student	BSc (Animal Science)	0882365536
10	Dickson Chadewa	Student		0994955612
11	Rabson Symon Phiri	Student		0886404849
12	Alisen Anion	Community Member (CM)	Ngolomi Village	
13	Mustafa Thomuso	Villager	Haji Village	0994881893
14	George Lifa	Villager	Malichi Village	
15	Charles Mlenga	Villager	GBH March	
16	Galanti Vickison	Villager	Gelesomo	
17	Delifa Christopher Mindozo	Villager	GVH March	
18	Miliyamu Kachepa	Villager	GVH March	
19	Ayida Katayamoyo	Villager	March 2	
20	Aginesi Jabesi	Villager	Chitengu	
21	Efelo Chimkonda	Villager	Andiya	0991039650
22	GVH March	Villager	March	-006763190

Scanned Signed Attendance sheet

LUANAR - BUNDA CAMPUS 12 JUNE, 2023

NAME	POSITION	DEPT	CONTACT
Bridget Mkandawire	Student	Environmental Sciences	0990545459
Priscilla Khuleya	student	Animal science	0881147146
Cynthia Liponda	Student	Agribusiness Management	0996906877
INNOCENT MAMBOMA	STUDENT	ANIMAL SCIENCE	0996043327
Yamikani Mbawe	Student	Food Science and technology	0980209495
Tuwamale Chawanda	Student	Food Science and Technology	0885213003
Thokozani Kandiyen	Student	Natural Resources Mgt	[illegible]
Victoria Kadyon	student	Agricultural Extension	[illegible]
Henderson Mafiyaji	student	Bsc in Agriculture	[illegible]
Dickson Chadewa	Student	Bsc Environmental Care	[illegible]
RAISSON Symon Phiri	Student	Bsc in Animal Science	[illegible]
Alisen Anion		Nzo Com Village	
mustafa Thomuson		HCI ji	11992 0996 [illegible]
George Lifa		March Village	
Charles Mkenga		Grup March	
Galanzi Vickison		Gelesomo: 0990231101	
Deifa Christopher Mindozo		Grp maiichi	
Miliyamu Kachepa		grup maiichi	
Ayida Katonyamoyo		Maiichi 2	
Aginesi Jabesi		Chitongu	
Efelo Chimkonda		Andiya	0991039650
A U H MARCH		MARCH	0996763190

INTRODUCTIONS- Self-introductions were made.

BACKGROUND OF THE SAVE PROJECT CONSULTATIVE MEETING

The consultant started by saying that she called for the consultative meetings to confirm the subprojects and get more information on the proposed project for Bunda College since at the time of the visit, it was only titles that were present, not the subproject specifications. The community members were invited for the reason that they would be impacted by the project in one way or another. The coming in of the project would create job and business opportunities for some of the community members and inviting them to the consultative meeting was so important. After giving a brief background of the project, the consultant called for questions and comments.

COMMENTS AND QUESTIONS

Most of the issues raised have been incorporated in the Risk and Impact Management table and mitigation measures suggested

COMMENT/QUESTIONS FROM STUDENTS AND LOCAL COMMUNITY MEMBERS	**RESPONSE BY CONSULTANT**
1. Kapitaos demand money from male job seekers and they demand sex from female jobseekers. Sometimes they want to touch women's breasts in exchange for either money or a job. Several instances have happened that I was asked to give some money (K18, 000) to get employment but ended up being left out.	This is noted and will be put in the ESMP report as a recommendation or mitigation measure
2, A lot of projects come to Bunda College, but we don't benefit from them in any way. We are always told there are no vacancies, and we ask ourselves when were the posts filled. None of us (the indigenous) here present has ever worked on any project on the LUANAR Bunda campus, it's only those coming from e.g. Mzuzu, Blantyre etc., who enjoy the benefits of LUANAR at Bunda. It is not fair that we being the owners of LUANAR should	I will tackle the third point this way; sensitization meetings will continue. What will happen is; prior to construction works, there will be sensitization meetings in which village headmen will informed about the commencement of the project, therefore alerting their people that the coming of the contractor and his employees should not be the cause of broken marriages. The sensitization meetings will be conducted

continue suffering. We sell our gardens to solve our problems while our friends get loans from LUANAR because they are working here.	according to age groups and gender group e.g. a group of girls, boys, women, men, and youth. A program of these sensitization meetings will be included in the ESMP for the meeting will be conducted at intervals. There will always be those who go against what is expected, that is why we see condoms or such messages in toilets at the owner's risk.
On the contractor coming in with his workers. Let me answer this way;	The Labour Laws and Employment Act recommends unskilled and skilled labourers to come from the community in which a project is taking place unless there are no qualified people then the contractor can go outside the community.
You say, as communities surrounding Bunda College you want to be part of it (Bunda) and you want to continue being involved in activities that are relevant to you.	This is a very good point – the fact that you were invited to this meeting you feel you are part of Bunda,
4. Another problem we face is; that during rainy seasons Bwanas who work here get labourers from here to work in their rented gardens in our villages instead of giving us piecework. At the end of the day get good yields than us. Please this should go into your report because these labourers get money from here not from the Bwanas. We want guidelines to be put in place; some people, calling themselves businessmen, bring drugs and substances to students saying drugs help one be brave	It is a good comment. Some contractors can entice students to use drugs. What am saying is before the commencement of the project there will be sensitization meetings for the youths, women, men and those working on the contract. The contractor needs to have a Contractor Environmental and Social Management Plan in which he states how he will handle issues such as gender issues etc. The contractor is supposed to have sensitization programs for his workers too. Therefore, it is monitoring that will be

e.g. in times of presentation etc. so we need guidelines so that this should be stopped,	checking whether whatever is put in the plan is carried out.
5. I gather there will be a food processing plant at Bunda, how will students benefit from the food processing plant? How will the community benefit? Will the food processing company be buying raw materials from the surrounding communities?	Ok. I think the raw materials will be coming from communities around Bunda and from Bunda farms; but if the raw materials are not found here, for example, if they want pineapples which would not be found here in abundance, then they can source from somewhere else. In the same way, the project would give priority to the surrounding community for employment, the same way they would give priority to buying raw materials from within the communities unless the raw materials are not locally available. As of now, I don't know what foods will be processed, but priority will be given to the local community and Bunda Farm. Details will be given later. This will be an internationally competitive factory, therefore quality will be emphasized, just like tobacco. We hear of tobacco being returned from auction floors because of poor quality.
	Let me add that, in most university food processing plants, produce cheese, yoghurt, noodles and soya pieces from where students get employment opportunities apart from using the plants for practical sessions. Another thing is that students can get the about-to-expire food items at a cheaper price
6. Noise pollution – I expect the machine will produce noise that will be disturbing classes. What measures are there to handle this?	There are mitigation measures for noise pollution. Noise from vehicles there is a traffic management plan. You have heard of

	speed limits, humps and the timing of certain (activities that can be done on weekends). Machines can have silencers. During an inspection of contractor's equipment, there is a need to check the standards of the equipment. That is Malawi Bureau of Standards will be involved in the project to check whether the equipment are in compliance with the MBS Standards.
7. How will the cut-down trees be replaced?	For every tree plant, ten are planted. Therefore, it will be in the contractor' document. He is supposed to replace the cut-down trees in liaison with the school management on where to plant the trees (in a woodlot or empty spaces).
8. What is the duration of construction?	The project was supposed to run from 2021-2026 (5 years). From conducting such studies as am doing, employing a contractor up to the completion of construction works.
9. How will gasses from the food processing plant be handled?	They will use filters. The contractor has to make sure that emissions do not exceed a certain level. Non-compliance with this results in the closure of the facility. Even effluents should not exceed a certain level to avoid destroying e.g. fish. That is why planning has to be monitored.
10. Was the EIA done?	No, it was not done. What happened was that LUANAR had their wish list (project document) that the World Bank, SAVE project and LUANAR screened and came up

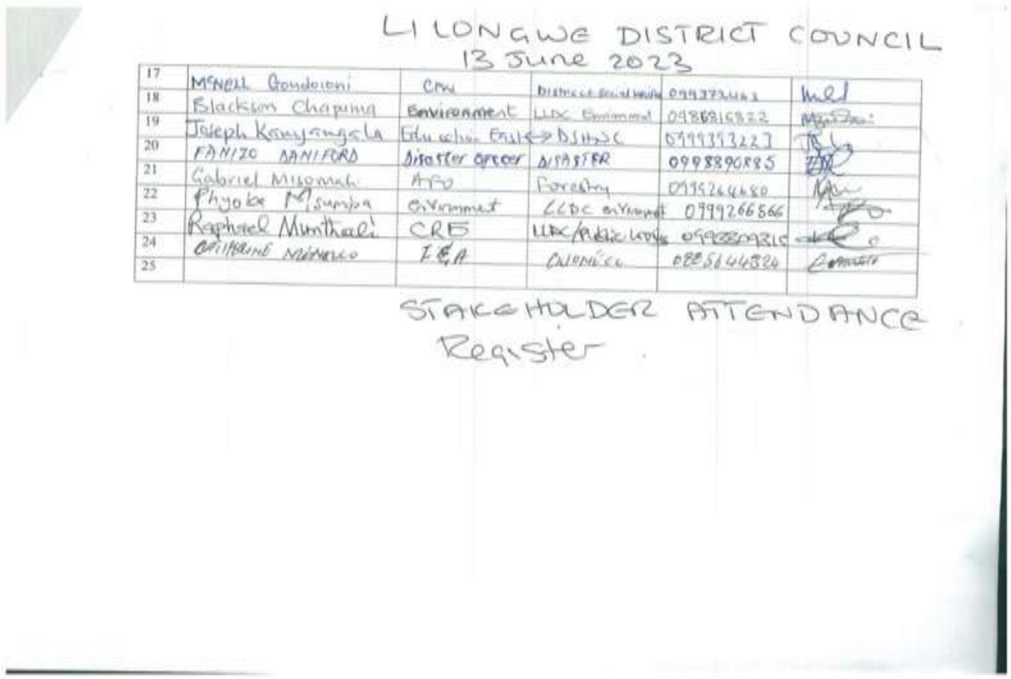
	with the idea that its only ESMP that is needed not the EIA.
11. My last comment: Make sure that those who will be employed are forewarned about this: Kapitaos steal materials and equipment from the construction projects which they ask the workers to keep for them.	This is a very good comment. You are the eyes of the college. Where you notice something wrong, report it to authorities (the police or community policing) –this is monitoring. Stealing is a problem in many projects.

Thank you all for being part of this fruitful consultative meeting. Thank you.

Appendix 12: Lilongwe DESC Consultative meeting held on 9 June 2023 at Lilongwe District Council Office

MEMBERS PRESENT

NO	NAME	POSITION	ORG\DEPT	CONTACT
1	Yamikani Nkhono	AIE	LLDC	0999888585
2	Agatha Mhango	CDO	LLDC	0993694466
3	Tadala Sendezera	EDO	LLDC	0999306648
4	Lusungu Ngwata	DRHO	LLDC	0995282022
5	Ulemu Chiyenda	NHAO	LLDC	0888772607
6	Ruth Masanje	PO	CISONECC	0998608494
7	Ruth Likambale	PM	CISONECC	0888713865
8	Mary Bulaimu	PA	CISSONECC	0882893650
9	Ignatius Kaulendo	DFO	Fisheries	0999493043
10	Willard Chirwa	DPD	LLDC Planning	0992256030
11	Blessings Makhiringa	Economist	LLDC Planning	0880845358
12	Rabecca Banda	EO	LLDC	0991309270
13	Sphiwe Masina	EO	LLDC	0998179697
14	Sylvia Kasiya	PPO	LLDC Planning	0996867468
15	Patience Jimu	SDO	LLDC Planning	0999458266
16	Nester Mdooko	Economist	LLDC Planning	0991036369
17	McNeil Gondoloni	CPW	District Social welfare	-
18	Blackson Chapima	Environment	LL DC Environment	0986816822
19	Joaeph Kanyangala	Education	DSHNC	0999393223
20	Fanizo Daniford	Disaster Office	Disaster	0998890885
21	Gabriel Misomali	AFO	Forestry	0999264680
22	Phyoka Msumba	Environment	LLDC Environment	0999266566
23	Raphael Munthali	CRE	LL DC Public Works	0993309315
24	Catherine Mendulo	I & A		0885644324



LILONGWE DISTRICT COUNCIL
13 June 2023

17	McNeill Gondwoni	CPM	District Social Welfare	099937[illegible]	[illegible]
18	Blackson Chapuma	Environment	LLDC Environment	0988816822	[illegible]
19	Joseph Kanyangala	Education [illegible]	DSHSC	0999393227	[illegible]
20	FANIZO DANIFORD	Disaster officer	DISASTER	0998890885	[illegible]
21	Gabriel Misomali	AFO	Forestry	0999264480	[illegible]
22	Phyoba Msumba	Environment	LLDC environment	0999266566	[illegible]
23	Raphael Munthali	CRE	LLDC/[illegible]	0999[illegible]	[illegible]
24	[illegible]	IEA	Council	0885644324	[illegible]
25					

STAKEHOLDER ATTENDANCE Register

The meeting started by the consultant making a presentation after which members were asked to give their comments\views and opinions. Some members were not aware of the SAVE Project and some were aware.

COMMENTS\QUESTIONS

1. There will be a lot of waste they need to come up with a good waste management plan because the site is close to water source and fish pond.

2. The issue of noise (from construction and pigs) was raised by students too. This means the noise pollution will not be there during construction only but also during operation of the fashion house. Mitigation measures will be recommended in the ESMP using international standard of noise control measures

Social issues nowadays do not only concern girls, we also have problems with boys with the coming in of same sex marriages so sensitization meetings will be scheduled for community members with tailored messages according to specific groups.

3. A structure close to proposed food processing, bioenergy laboratory, green house and mushroom structure, pigs sometimes produce sounds therefore ensure that they include measures to mitigate the sounds\noise

4. When is the plan going to come to the District council?

5. Physical designs have to come with the ESMP to the District Council

6. What will happen to the trees at the proposed construction site?

There are only two trees and we know that for every one tree cut, we replace it by ten trees.

7 I have been listening to the presentation and am afraid there are minor gaps – the design is not yet provided with designs and some of the information will there be a chance for a committee to be consulted?

On the issue of gaps, it's for the entire SAVE project, so PIU is contemplating of extending the consultants contract so that what is in the ESMP should feed in the designs.

And on feedback to this committee, I think what should be done is, I may not be able to come again considering the time but I can share the detailed project descriptions. Those descriptions can be shared through the chairperson.

8. Location of the food processing plant being upstream the fish ponds.

They may think of resettlement plan

9. As a committee we need to be monitoring the ESMP.

I thought you were involved during screening actually that is why I said are you aware of the project, I don't know who was involved in the process.

Thank you everybody. I hope you have indicated on the sheet, what role you can play in the proposed project.

MAJOR ISSUES RAISED AT DESC MEETING

1. Waste Management plan

A lot of waster will be generated from the proposed food processing plant, therefore, there is need for a good waste management plan.

2. What will happen to the fish pond? The proposed food processing plant is upstream, while the fish pond is downstream, what will happen to the fish pond.

3. Noise will be produced from the food processing, bioenergy laboratory, green house and mushroom structure and sound from pigs, how will the noise be mitigated?

4. ESMP report. The council would love to have a copy of the ESMP.

5. Replacement of the cut down trees. Members want the trees that would be cut in the SAVE project to be replaced.

Role to Play in the project

Appendix 13: National Stakeholders Meeting: Extract of Issues Raised for Construction Projects at Bunda - 13th June, 2023 at Byte Lodge, Lilongwe

Members present	Contact	Organisation
Martha Kalumbi	0994012992	Ministry of Gender
Mr Chasukwa	0993 007 187	Ministry of Youth and Sports
Mr Dhuya Mtawali	0888 79 55 50	Ministry of Labour
Mr Peter Elesani	0999 140 956	PIU – Chairperson
Mrs M P Kalindekafe	0888 89 66 25	SAVE Project Consultant

Self-introductions were made

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

The national consultative meeting was organized by the SAVE Project Consultant to present to the relevant ministries what she had found after going around the institutions in which she is developing the ESMP for and to get views, opinions and comments from the stakeholders at national level. The consultative meeting started with the consultant giving a presentation then she welcomed comments and questions from the participants. The presentation was on all projects but issues relevant to Bunda College are presented in this appendix,

MATTERS ARISING

The following were issues were raised from the presentation with respect to Bunda College:

2. Issues to be outlined in the ESMP report.

The following were recommended to be outlined in the ESMP

A. Issues of gender

B. HIV

C. Child Labour

D. Girls getting pregnant by construction workers

E. Conflicts between community members and contractor and his workers

There should be a safeguarding policy on abuses between community members and incomers or vice versa. Issues of sexual harassment etc.

There is need too for the women to be taught the concept of Village Savings and Loans. The department of Community Development need to be involved to help teach the community on a saving culture for sustainability after the project.

F. Children coming close to construction works (safety issues)

G. Employment opportunities. Consider women and use a guideline in gender Act 40\60

H. GRM handling mechanism. Incorporate some members from the community and their role should include

- Supporting the project with sensitization
- Capacity building with structures that will be formed
- Monitor how communities are interacting with contractor

Are the youth involved in the GRM?

All institutions have GRM committees but they think they will need to use it when they see someone is on the site and the construction work has started.

7. Environmental policy: The consultant observed that institutions don't have an environmental policy that will guide all activities. It's a gap that she observed. Members felt that environmental issues are not taken seriously.

8. There being no other comments and issues to discuss the meeting ended at 11:46 with a prayer

NATIONAL STAKEHOLDERS' CONSULTATIVE MEETING

ATTENDANCE FORM

DATE ....9 JUNE 2023....

NO	NAME	POSITION	ORG/DEPT	CONTACT	SIGNATURE
1	Martha Kalumbi	PGDO	MoGCDSW	0999012992	
2	Peter Elegon	Social Safeguards Specialist	PW	0999 140 986	
3	DHUYA	coordinator	MoL (Tech Edu)	0888 795552	
4	C. Chasunma	PYO	MoY&S	0993007187	
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Roles which National Stakeholders can play in ESMP

No	Dept.\Organisation	Contact	Phone No	Role To Play
1	Ministry of Gender	Martha Kalumbi	0994012992	capacity building - safeguarding policy development
				Sensitization on positive and negative impacts of the project
				Promote 40\80 employment policy guide on recruitment
2	Ministry of Labour	Dhuya	0888795550	Monitoring and guiding with reverence to government policies
3	Ministry of Youth & Sports	C. Chasukwa	0993007187	Safeguarding issues on young people both boys and girls
				Sensitizing young people on pros and cons on sexuality issues
4	PIU	Peter Elesani	0999140956	Coordinating implementation

Appendix 14: Bunda GRM Committee Members

No	NAME	DESIGNATION
1	Dr. Judith Kamoto	Director of Compass and Save Desk Officer
2	Dr. Ronnie Ngwira	Dean of Students
3	Mr. Francisco Chamera	Staff Union President
4	Mr. Mayamiko Kachepa	Students Union President
5	Ms. Elizabeth Nkhonjera	Gender Coordinator
6	SGVH Malichi	Community Representative
7	SGVH Tsinkha	Community Representative
8	Mr. Kamboyi	Clinical Officer
9	Mr. Nyirongo	Estates Development Manager
10	Dr. Sekanawo Kasiya	Environmental & Social Safeguards focal point