

DIRECTORATE OF OPEN, DISTANCE AND E-LEARNING

SKILLS FOR A VIBRANT ECONOMY (SAVE) PROJECT

**ABRIDGED ENVIRONMENTAL AND SOCIAL MANAGEMENT
PLAN FOR MALAWI UNIVERSITY OF SCIENCE AND
TECHNOLOGY REHABILITATION WORKS**

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LIST OF ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
COVID 19	Corona Virus Disease of 2019
ESMP	Environmental and Social Management Plan
GBV	Gender Based Violence
GRC	Grievance Redress Committee
HIV	Human Immunodeficiency Virus
ID	Identify
IIT	Institution Implementation Team
M&E	Monitoring and Evaluation
MEPA	Malawi Environment Protection Authority
MUST	Malawi University of Science and Technology
NHBG	National Herbarium and Botanical Gardens
LED	Light Emitting Diodes
PPE	Personal Protective Equipment
SAVE	Skills for A Vibrant Economy
SEA	Sexual Exploitation and Abuse
SH	Sexual Harassment
STIs	Sexually Transmitted Infections
TEVET	Technical, Entrepreneurial, and Vocational Education and Training

1.0. INTRODUCTION AND BACKGROUND

1.1. INTRODUCTION

The Government of Malawi through Ministry of Education and Ministry of Labour and Vocational Training, with funding from World Bank would like to implement the Skills for A Vibrant Economy (SAVE) Project. The estimated cost for the proposed project is US\$ 100 million and expected duration is 5 years (from 2021 to 2026). The proposed Project is aimed to improve access to market-relevant skills programs in priority areas of the economy, ensuring equity in skills training with empowerment of women and girls and vulnerable youth through targeted skills in priority areas of the economy and creating a conducive policy environment & strengthening systems and institutional capacity for skills development, which will center on: Technical, Entrepreneurial and Vocational Education and Training (TEVET) and Higher Education Reforms, Student loans, Industrial links, Digital technology and Safeguards, Capacity Building, and Technical Assistance among other systemic issues.

The Project will help to among others: (i) Increasing equitable access to market relevant skills development programs in priority areas of the economy in public higher education institutions (ii) Increase equitable access and market-relevance to technical and vocational education and training opportunities in priority areas of the economy and (iii) support Tertiary education student financing and system strengthening, project management, M&E and communications.

Malawi University of Science and Technology (MUST) being one of beneficiary institution to benefit from the SAVE project has proposed some rehabilitation activities at two of its ODeL (Open Distance and e-Learning) sites of Chankhanga and Nansomba as well as MUST Dam area and surroundings. The works shall involve the transformation the existing block into an ODeL center and rehabilitation of the Dam area.

The rehabilitation is expected to commence in July, 2024 and will take 3 months to be completed.

1.2. SCOPE OF THE PROJECT

1.2.1 Chankhanga center

The scope of works for Chankhanga center includes refurbishing the existing block into an ODeL center by creating sophisticated spaces, through partitioning the existing block into an office and a computer laboratory and tilling the existing cement floor, installation of ceiling, new windows, doors and painting the walls. It also involves general electrical works, the installation of an efficient air conditioning system. The work also includes installation of furniture and fittings to equip the newly partitioned areas and provide sanitary fittings.

1.2.2 Nansomba Center

The scope of works for Nansomba center includes to refurbish the existing block into an ODeL center block by creating sophisticated spaces, through partitioning the existing block into an office and a computer laboratory and tilling the existing cement floor, installation of ceiling, new windows, doors and painting the walls. It also involves general electrical works, the installation of an efficient air conditioning system and sanitary fittings.

1.2.3 MUST Dam area rehabilitation

The scope of works for dam area rehabilitation includes landscaping of the existing ground to enhance the scenic beauty of the surroundings. This will involve leveling, identifying and uprooting of invasive plants, introduction of new flowers. The installation of garden chairs that are weather resistant which will be strategically placed throughout the area. It also includes the design and clearing of pathways to the garden. The general outlook will ensure an ergonomic design with inclusion of fixed high table and bar stool type chairs as part of the garden area

1.3 Approach and Methodology for Impact Identification

Identification of environmental and social impacts was based on the environmental screening that was conducted at the propose project site.

2.0. Assessment of Positive and Negative Impacts/ Risks of the Activity

From the study, a number of positive and negative impacts were identified, and enhancement and mitigation measures for both the positive and negative impacts were proposed. Some of the proposed measures require management support and while others will require funds in order to ensure effective implementation. It is therefore recommended that MUST IIT should provide the required support and ensure timely and adequate resources required for implementation of the proposed measures. The table below summarizes the potential impacts with their enhancement and mitigation measures.

Table 1: Environmental and Social Management Plan for Rehabilitation of structures at MUST

S/N	Potential Impacts/ Risks	Enhancement/Mitigation measures	Project phase	Implementing Institution	Monitoring Institution	Estimated cost (MK)
Positive Impacts/ Risks						
1.	Increased equitable access to education	<ul style="list-style-type: none"> • Ensure provision of adequate and disability friendly teaching facilities; • Ensure availability of well qualified male & female lecturers and technicians; • Ensure availability of adequate computers and other electronic equipment for special needs students 	Rehabilitation and operation phase	MUST (SAVE IIT)	Ministry of Education	Part of project cost
2.	Improved access to internet	<ul style="list-style-type: none"> • Allow equitable access to the ICT laboratory for both the students and teachers • Extend bandwidth to outdoor learning • Ensure maintenance of the ICT equipment 	Operation Phase	MUST (SAVE IIT)	Ministry of Education	Part of project cost
3.	Creation of job opportunities to workers hired to rehabilitate the infrastructure	<ul style="list-style-type: none"> • Provide equal employment opportunity to both men and women • Prioritize employing both men & women from surrounding communities • Pay the workers above the government recommended minimum wages without sex discrimination. 	Rehabilitation phase	MUST (SAVE IIT)	Ministry of Labour/GR MC	Part of project cost

S/N	Potential Impacts/ Risks	Enhancement/Mitigation measures	Project phase	Implementing Institution	Monitoring Institution	Estimated cost (MK)
4.	Skills transfer and hands on experience	<ul style="list-style-type: none"> • Targetted training of unskilled workers • Pair skilled and non-skilled workers to ensure skill transfer through mentorship 	Rehabilitation phase	MUST (SAVE IIT)	Ministry of Labour/Ministry Education	Part of project cost
5.	Creation of temporary small-scale business opportunities	<ul style="list-style-type: none"> • Designate an appropriate area where small-scale business owners will be plying their trade equitably 	Rehabilitation phase	MUST (SAVE IIT)	Relevant District Councils	NA
6.	Increased business opportunities	<ul style="list-style-type: none"> • Promote the procurement of materials and supplies from both male and female owned small scale businesses within the project area; • Purchase of construction materials at competitive prices to ensure Malawian local businesses off-set the costs and expand their businesses • Ensure that locally produced materials are given priority over imported materials 	Rehabilitation phase	MUST (SAVE IIT)	SAVE PIU/Ministry of Trade	Part of project cost
7.	Source of Government revenue through taxes	<ul style="list-style-type: none"> • Ensure timely payment of taxes; • Procure goods and services from tax compliant businesses 	Rehabilitation phase	MUST (SAVE IIT)	SAVE PIU	Part of project cost
8.	Improved sanitation facilities	<ul style="list-style-type: none"> • Ensure that the toilets and other facilities are clean • Promote good sanitation behaviours such as washing hands after visiting the toilets • Provide disinfectants and adequate cleaning materials 	Operational phase	MUST (SAVE IIT)	MUST SAVE IIT	500,000

S/N	Potential Impacts/ Risks	Enhancement/Mitigation measures	Project phase	Implementing Institution	Monitoring Institution	Estimated cost (MK)
		<ul style="list-style-type: none"> Provision of bins for disposing sanitary pads 				
9.	Improved ventilation	<ul style="list-style-type: none"> Ensure maintenance of the air conditioners Ensure the coolant used in the air conditioners are the acceptable type i.e. not ozone depleting Encourage natural ventilation by opening windows 	Operational phase	MUST (SAVE IIT)	MUST / PIU	550,000
10	Provision of recreation area surrounding the dam	<ul style="list-style-type: none"> Landscaping the dam surroundings with native flower and grass species, Provide quality chairs that will withstand the weather and uphold ergonomics 	Operation phase	MUST (SAVE IIT)	MUST (SAVE IIT) / PIU	2,000,000
Negative Impacts/ Risks						
A.	Environmental impacts/risks					
1.	Noise pollution from delivery vehicles and workers	<ul style="list-style-type: none"> Avoid unnecessary hooting of vehicles; Sensitize workers to switch off engines and equipment when not in use. Schedule noisy activity after classes or weekends; Provide screens or noise barriers during construction works that produce high noise Provide appropriate PPE (e.g. ear protective gears) to workers and enforce its usage. 	Rehabilitation phase	MUST (SAVE IIT)	District Environment Office	750,000

S/N	Potential Impacts/ Risks	Enhancement/Mitigation measures	Project phase	Implementing Institution	Monitoring Institution	Estimated cost (MK)
2.	Increased generation of municipal solid waste such as packaging materials, food leftovers and cartons.	<ul style="list-style-type: none"> • Implement waste segregation at source by provision of color-coded waste bins and having contracts with registered waste disposal agencies • Provide waste receptacles at strategic places, work sites and dam site; • Disposal of waste in designated dumpsites in liaison with Relevant District Councils; • Train workers in good waste management practices; • Encourage re-use and recycling of waste 	Rehabilitation phase and operational phase	MUST (SAVE IIT)	Relevant District Councils/ME PA /PIU	1,500,000
3.	Generation of demolition waste and construction rubble	<ul style="list-style-type: none"> • Sort and reuse where possible before disposal. • Use the demolition waste to rehabilitate the degraded areas; and ensure that waste does not contain any polluting substances such as paint that may leach into soil systems and underground water • Disposal of waste in designated dumpsites in liaison with Relevant District Councils 	Rehabilitation phase	MUST (SAVE IIT)	Relevant District Councils/ME PA	500,000

S/N	Potential Impacts/ Risks	Enhancement/Mitigation measures	Project phase	Implementing Institution	Monitoring Institution	Estimated cost (MK)
4.	Generation of hazardous waste e.g. LED bulbs	<ul style="list-style-type: none"> • Train workers in good waste management practices e.g. proper containment, handling and disposal of LED bulbs. • Provide special receptacles for hazardous waste; • Dispose hazardous waste in designated dumpsites in liaison with MEPA; Where possible implement a 'return to distributor' for hazardous waste • Obtain appropriate licences for hazardous waste; 	Rehabilitation phase	MUST (SAVE IIT)	MEPA	1,000,000
5.	Increased energy demand	<ul style="list-style-type: none"> • At rehabilitation phase, purchase equipment with good energy efficiency ratings (to be specified in the tender documents) • At operations phase, engage energy audit experts to ensure the building's energy consumption is always optimized • Switch off all lights, technical equipment immediately when not in use or are not needed. • Use energy conserving bulbs for general lighting. • Use rechargeable bulbs 	Rehabilitation phase Operational phase	MUST (SAVE IIT)	Ministry of Energy/MEPA	300,000

S/N	Potential Impacts/ Risks	Enhancement/Mitigation measures	Project phase	Implementing Institution	Monitoring Institution	Estimated cost (MK)
6.	Increase in dust emissions during demolition	<ul style="list-style-type: none"> • Provide dust masks to the workers • Use water to suppress the dust • Provide dust screens to prevent dust pollution is contained in the work area • Ensure regular removal of dust ensures the dust levels are kept low. • Provide goggles to workers • Use appropriate equipment for removal of demolition waste 	Rehabilitation phase	MUST (SAVE IIT)	MEPA/Ministry of Labour	500,000
7.	Increased risk of introducing invasive plant species	<ul style="list-style-type: none"> • Consult the relevant Institutions before introducing the flowers and grass • Immediately remove all existing alien invasive species once identified. This will be done using mechanical removal. • Dispose all the invasive species in liaison with MEPA and NHBG 	Rehabilitation and operation phase	MUST (SAVE IIT)	MEPA, NHBG, Forestry	1,000,000
8.	Increased risk of soil erosion	<ul style="list-style-type: none"> • Compact any open ground sections without vegetation cover and used as paths • Channel water and runoff away from open grounds 	Rehabilitation and operation phase	MUST (SAVE IIT)	MEPA	1,000,000

S/N	Potential Impacts/ Risks	Enhancement/Mitigation measures	Project phase	Implementing Institution	Monitoring Institution	Estimated cost (MK)
		<ul style="list-style-type: none"> • Provide storm drain system at the operations stage to manage the risk of soil erosion • Shape the slope surface to maximum stability; • Plant grass and trees to reduce runoff; and • Avoiding ground clearance and excavations during rainy seasons. 				
9.	Loss of vegetation	<ul style="list-style-type: none"> • Plant native trees to replace the invasive species that have been removed • Conduct awareness to the surrounding communities 	Rehabilitation phase	MUST (SAVE IIT)	MEPA / PIU	500,000
B.	Occupational safety and health impacts/risks					
1.	Risk of injury due to fall from heights during ceiling installation	<ul style="list-style-type: none"> • Inspect and ensure the climbers have proper gripping structures • Ensure proper installation of scaffolds and inspect before using • Inspect and ensure the ladders in use are certified fit for the purpose by the supervisor • Inspect and ensure use of safety harness/belts when working at heights • Provide first aid kit and trained first aider 	Rehabilitation phase	MUST (SAVE IIT)	Ministry of Labour	600,000

S/N	Potential Impacts/ Risks	Enhancement/Mitigation measures	Project phase	Implementing Institution	Monitoring Institution	Estimated cost (MK)
		<ul style="list-style-type: none"> • Train workers working at height and issue permit for working at heights • Provide basic first aid drills to the workers 				
2.	Risk of injury due to use of faulty equipment or tools	<ul style="list-style-type: none"> • Contractor to provide list of all tools to be used on site activities and provide the various risks that manifest if the tools are not fit for purpose e.g. grinders without disk covers, electrically powered tools with frayed insulation or missing insulation, hammers with loose pins, circular table saws without disk guards etc and the ways in which these faults will be rectified before contract agreement • Inspect the equipment and tools and certify fit for the purpose before use. • Routine maintenance and replacement of equipment and tools. • Purchase of standard equipment and tools for the work 	Rehabilitation phase	MUST (SAVE IIT)	Ministry of Labour	300,000
3.	Direct contact with and inhalation of paint leading to irritation, headache and dizziness	<ul style="list-style-type: none"> • Contract to request the use of lead-free paints • Ensure proper storage, handling and use of paints and other organic solvents in accordance with MSDS provided by the suppliers 	Rehabilitation phase	MUST (SAVE IIT)	Ministry of Labour	800,000

S/N	Potential Impacts/ Risks	Enhancement/Mitigation measures	Project phase	Implementing Institution	Monitoring Institution	Estimated cost (MK)
		<ul style="list-style-type: none"> • Ensure packaging of paints, organic solvents and other hazardous materials are not issued to/collected by students/workers or community members for reuse in domestic setting for storage of water etc. • Provision of PPE (goggles, face mask, work suit, gloves and safety boots) • Use of well trained painters and ensure proper handling of paint 				
4.	Risk of injuries to staff due to rehabilitation works that can include: muscular and musculoskeletal trauma. slips and trips cuts electrical hazards hitting or being hit by an object. mental stress fatigue	<ul style="list-style-type: none"> • Contractor will be requested to list all possible injuries in the specified works and include mitigation measures before contract agreement • Conduct routine sensitization on safety and ensure toolbox talks are conducted. • Putting safety signs on the designated work site • Ensure availability of first aid kits and trained first aiders • Provide basic first aid drills to staff members 	Rehabilitation phase	MUST (SAVE IIT)	Ministry of Labour	1,500,000
5.	Poor sanitation	<ul style="list-style-type: none"> • Provision of separate sanitary facilities for men and women at the rehabilitation site; • Provision of potable water within the site 	Rehabilitation phase	MUST (SAVE IIT)	Ministry of Labour/ PIU /MEPA	800,000

S/N	Potential Impacts/ Risks	Enhancement/Mitigation measures	Project phase	Implementing Institution	Monitoring Institution	Estimated cost (MK)
		<ul style="list-style-type: none"> • Sensitize workers on the importance of good hygiene practices 				
6.	Fire risk	<ul style="list-style-type: none"> • Ensure electrical connections that meet local wiring standards as faulty wiring is usually a major cause of fires • Implement fire safety audits of the entire facility during the operations phase to ensure continued fire safety • Train fire marshals and other stakeholders on general fire safety • Install fire safety signage • Hire competent and properly authorized electrical contractor to do the electrical works • Conduct regular firefighting drills within the site • Provide firefighting equipment and ensure that they are regularly maintained and serviced • Provision of fire water reservoir • Check that the entire facility has a function firefighting system and that the project site seamlessly integrates with this system at operations stage 	Rehabilitation phase	MUST (SAVE IIT)	MERA/Relevant District Councils	1,500,000

S/N	Potential Impacts/ Risks	Enhancement/Mitigation measures	Project phase	Implementing Institution	Monitoring Institution	Estimated cost (MK)
		<ul style="list-style-type: none"> Conduct trainings on fire prevention measures and fire fighting 				
7.	Increased risk of electric shock	<ul style="list-style-type: none"> Implement electrical safety programs such as lock-out-tag-out (LOTO) - no work on live systems policy Ensure that electrical works meet at least the local standards Use registered electricians Provide warning signage Ensure all measures on working on electric infrastructure are met before commencement of works. 	Rehabilitation phase	MUST (SAVE IIT)	MERA/Ministry of Labour/ PIU	500,000
C.	Social impacts/risks					
1.	Increased risk of Gender-Based Violence (GBV), Sexual Harassment, Sexual Exploitation & Abuse (SEA),	<ul style="list-style-type: none"> Awareness on GBV and prevention of SEA/ SH; Strict penalties on GBV perpetrators; Form and orient GRM committees, and raise awareness among key stakeholders on GRM; Put in place reporting mechanisms to relevant authorities e.g. Police Victim Support Unit, Social Welfare Offices and GRM committees; Develop and implement code of conduct; 	Rehabilitation phase Operational phase	MUST (SAVE IIT)	Ministry of Gender/relevant NGOs/ PIU	1,700,000

S/N	Potential Impacts/ Risks	Enhancement/Mitigation measures	Project phase	Implementing Institution	Monitoring Institution	Estimated cost (MK)
		<ul style="list-style-type: none"> Sensitize and raise awareness on Public Service Workplace Antisexual Harrassment Policy, sexual harassmt guidelines; and Develop and disseminate IEC materials on SEA. 				
2.	Increased levels of illicit activities i.e. theft of property and conflicts between workers and staff.	<ul style="list-style-type: none"> Implement a basic security management system that ensures authorization prior to any item being removed from site and having an inventory of items of value Conduct awareness on anti-theft Provide penalties on theft in the code of conduct Develop and implement code of conduct Provide storage facilities with adequate security Proper record keeping 	Rehabilitation phase	MUST (SAVE IIT)	Community Police Malawi Police Service	750,000
3.	Risk of Child labour	<ul style="list-style-type: none"> Awareness campaigns on dangers of child labour (both direct and indirect child labour) Hard penalties on child labor perpetrators Use of national ID when hiring people to do rehabilitation works for the project to avoid hiring persons under the minimal age of employment 	Rehabilitation phase	MUST (SAVE IIT)	Ministry of Labour/Ministry of Gender	1,000,000
4.	Increase in spread of STIs including HIV and AIDS due to	<ul style="list-style-type: none"> Availability of community sexual reproductive health service centres. 	Rehabilitation phase	MUST (SAVE IIT)	District AIDS Coordinator	700,000

S/N	Potential Impacts/ Risks	Enhancement/Mitigation measures	Project phase	Implementing Institution	Monitoring Institution	Estimated cost (MK)
	sexual interaction between staff, surrounding communities and workers	<ul style="list-style-type: none"> • Campaigns on sexual and reproductive health, STIs, HIV and AIDS, unwanted pregnancies • Provide condoms to prevent STIs including HIV and AIDS 			/DEHO/FPAM	
5.	Increased risk in the spread of COVID-19	<ul style="list-style-type: none"> • Provide hand washing facilities at the work site. • Implementing existing government guidelines and regulations on COVID-19. • Raise awareness on COVID-19 among the workers and surrounding communities 	Rehabilitation Phase	MUST (SAVE IIT)	DEHO	500,000
6.	Increased risk in the spread of Cholera	<ul style="list-style-type: none"> • Good hygiene practices • Provide hand washing facilities at the worksite • Ensure availability and access of toilets for both male & female workers • Sensitize workers and surrounding communities on Cholera preventive measures • ensure there are controls around water and food consumed at site • ensure there is constant supply of running water to support the hygiene practices 	Rehabilitation Phase	MUST (SAVE IIT)	DEHO/PIU	1,000,000
7.	Risk of restricting access to the facilities	<ul style="list-style-type: none"> • Construction of ramps to be accessed by persons with physical disabilities • Install disability friendly toilets 	Rehabilitation and Operation Phase	MUST (SAVE IIT)	Department of Disability	Part of project cost

S/N	Potential Impacts/ Risks	Enhancement/Mitigation measures	Project phase	Implementing Institution	Monitoring Institution	Estimated cost (MK)
8.	Increased insecurity	<ul style="list-style-type: none"> • Install & regular checking of floodlights • Use of energy saver floodlights • Ensure coordination between MUST management and Malawi Police Service 	Operational phase	MUST SAVE IIT	Malawi Police Service MUST IIT	1,500,000
9.	Increased risk of disturbance to learners and staff	<ul style="list-style-type: none"> • Screen off the rehabilitation site • Carry out noisy activities after school hours and during weekends • Provide alternative routes and toilets during rehabilitation 	Rehabilitation phase	MUST SAVE IIT	MUST SAVE IIT/PIU	600,000

3.0. CONCLUSION AND RECOMMENDATION

3.1. CONCLUSION

This Abridged Environmental and Social Management Plan has been prepared through document review, field surveys and consultations. The document has addressed environmental and social impacts associated with the rehabilitation works.

Management measures prescribed for the proposed rehabilitation will reduce the significance of negative impacts on the physical, biological and human environments and enhance the project's positive impacts. Some of the identified negative impacts are; increased noise activities; increased safety and health risks of the workers and staff and increased risk of Sexual Exploitation and Abuse and Gender-Based Violence.

3.2 RECOMMENDATIONS

To enhance the environmental and social sustainability of the proposed project, the project proponent must implement the following recommendations:

- The project implementation should observe and adhere to the appropriate environmental and social mitigation measures outlined in the ESMP by providing timely and adequate resources for implementing the measures;
- MUST IIT should ensure timely monitoring and reporting on implementation of the proposed measures;
- All solid waste generated in the course of rehabilitation works will be disposed of in designated site in liaison with Relevant District Councils;
- Dispose all the uprooted invasive species in liaison with MEPA and NHBG;
- All workers should be trained in the job they perform and provided with appropriate PPE such as safety harness, work suits, helmet and boots;
- Health and safety procedures should be observed by conducting prior sensitization about the work to be undertaken and provision of appropriate signage during implementation of the rehabilitation activities;
- Use cement blocks for all the rehabilitations works to be undertaken;
- Both staffs and construction workers should be sensitized about the need to protect themselves from contracting or transmitting communicable diseases such as Cholera, COVID 19 and Sexually Transmitted Infections (STIs) such as HIV and AIDS and where possible provide them with condoms for protection;
- All workers must be sensitized on GBV and SEA/SH prevention and reporting.
- Work permits for working at heights will be issued by the supervisor following risk assessment of the work site;
- Any grievance related to the rehabilitation works will be reported to the GRMC and will be handled/ referred to appropriate committee in line with the type of grievance raised; and
- MUST IIT to conduct sensitization on the environmental and social mitigation measures captured in the ESMP to all workers and staff.

